

Project Data Summary Sheet¹²²

Project Number	SEA 4000 Phase 3
Project Name	AIR WARFARE DESTROYER
First Year Reported in the MPR	2008-09
Capability Type	New
Acquisition Type	Australianised MOTS
Capability Manager	Chief of Navy
Government 1st Pass Approval	May 05
Government 2nd Pass Approval	Jun 07
Budget at 2 nd Pass Approval	\$7,207.4m
Total Approved Budget (Current)	\$9,089.3m
2017-18 Budget	\$522.8m
Project Stage	Initial Materiel Release
Complexity	ACAT I



Section 1 – Project Summary

1.1 Project Description

This project will acquire three *Hobart* Class Air Warfare Destroyers (AWD) and their support system for the Australian Defence Force (ADF). The capability provided by the AWDs will form a critical element of the ADF's joint air warfare defence capability and will contribute to a number of other joint warfare outcomes.

1.2 Current Status

This project was removed from the Projects of Concern list on 1 February 2018.

Cost Performance

In-year

The AWD Program was underspent by \$56.5m against the approved budget in FY 2017-18. The main variation of \$35.4m is reduced Foreign Military Sales (FMS) disbursements against the AEGIS case. Overall costs associated with the Alliance Based Target Incentive Agreement (ABTIA) were above budget by \$18m predominantly due to the deferral of scheduled repayment of the ABTIA advance accounts equalling \$22.5m and remaining variance of \$4.5m due to Raytheon savings in the management of the support functions.

The Platform Systems Design Contract (PSD) budget was underspent by \$13.2m due to the achievement of milestones being delayed to the latter half of 2018.

The Program Management Office (PMO) budget was underspent by \$25.9m of which \$12.9m was attributed to various contract and procurement delays (insurance premiums, support for DDG SPO, warehousing, outfit allowance and spares) and a number of risks with funds allocated that did not materialise, totalling \$13m.

Project Financial Assurance Statement

Notwithstanding the issues disclosed at Section 5.2, as at 30 June 2018, SEA 4000 Phase 3 has reviewed the approved scope and budget for those elements required to be delivered by the program. Having reviewed the current financial and contractual obligations of the program, current known risks and estimated future expenditure, Defence considers, as at the reporting date, and following the completion of the AWD Reform strategy in December 2015, which included a Real Cost Increase of \$1.2 billion to the AWD budget, being approved in July 2015 and provided in September 2015, 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

On 6 September 2012, following a stakeholder review of resource considerations and support for a schedule extension, the then Minister for Defence announced that the AWD schedule had been re-baselined. The revised AWD delivery dates were:

- HMAS *Hobart* (Ship 1) – March 2016;
- HMAS *Brisbane* (Ship 2) – September 2017; and

¹²² Notice to reader

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

- HMAS *Sydney* (Ship 3) – March 2019.

These delivery dates represented delays of 15, 18 and 21 months respectively against the dates contracted in October 2007.

Following further concerns with AWD delivery, the delivery schedule has been further re-baselined as part of the AWD Reform. The post-Reform contracted delivery dates are:

- HMAS *Hobart* (Ship 1) – June 2017;
- HMAS *Brisbane* (Ship 2) – July 2018; and
- HMAS *Sydney* (Ship 3) – December 2019.

These new delivery dates represent delays of 30, 28 and 30 months respectively against the dates contracted in October 2007.

Since July 2017 the following major events have occurred:

- July 2017 – Ship 3 Hull Integration completed
- September 2017 – Initial Materiel Release achieved
- March 2018 – Ship 2 Category 5 Sea Acceptance Trials commenced

IOC is forecast to be achieved in December 2018 (36 months behind schedule).

Materiel Capability Delivery Performance

All significant government specified capability, **with the exception of Radar-Electronic Attack, (R-EA)** is currently planned to be achieved and in some warfare areas, the capability will be exceeded. Procurement of the R-EA sub-system has been deferred as currently available technology does not represent a cost-capability benefit. The R-EA budget has been preserved to support a more capable system being installed in the AWD **when available**. Decisions made by the program in conjunction with the Capability Manager will **determine how this capability will be delivered in the future**.

Note

Forecast dates and capability assessments are excluded from the scope of the review.

1.3 Project Context

Background

In May 2005 the Government granted first pass approval to the Program, allowing commencement of Phase 2, the Design phase. Phase 2 oversaw the development of two platform designs:

- The 'Existing' design based upon a modified version of the Navantia designed and built F-100 warship as the Australianised military off-the-shelf option; and
- The 'Evolved' design produced by Gibbs & Cox developed from an in-house design utilising design features of the US Navy class of Aegis Guided Missile Destroyers.

In May 2005, the Government selected ASC AWD Shipbuilder Pty Ltd as the shipbuilder for the AWD Program and determined that the ships should be built in Adelaide. Raytheon Australia Pty Ltd was chosen as the Combat System Systems Engineer.

In October 2005, Defence sought and received Government approval to acquire three Aegis Weapon Systems to provide the core air warfare capability of the AWD. The Commonwealth subsequently entered into a United States (US) Foreign Military Sales (FMS) agreement for the acquisition of the Aegis weapons system and associated engineering services and integrated logistic support.

In June 2007, at Second Pass, the Government granted approval to commence construction of the *Hobart* Class AWD utilising the existing design. This decision initiated the current phase of Project SEA 4000 Phase 3, the construction phase.

Phase 3 includes detailed design, procurement, ship construction, and set to work of the Aegis Combat System and the F-100 based Platform Systems. This culminates in the delivery of three *Hobart* Class AWDs together with the ships support systems including initial spares and ammunition outfits, and initial crew training.

Phase 3 concludes with the delivery to the Royal Australian Navy (RAN) of the third AWD, HMAS *Sydney*.

At Second Pass, the Government approved Defence's proposal to close SEA 4000 Program Phase 2, Design, and Phase 3.1, Aegis acquisition activities, and combine the remaining Phase 2 and Phase 3.1 scope and funding with SEA 4000 Program Phase 3.

The Government announced the implementation of an AWD Reform Strategy on 4 June 2014 following an Independent Review of the AWD Program and heightened concern regarding program schedule and forecast cost increases. These concerns resulted in the Program being designated a Project of Concern in June 2014.

As part of the Reform strategy, the Commonwealth entered into agreements with both BAE Systems and Navantia to participate in the Reform Interim Phase from December 2014 until 31 July 2015.

On 22 May 2015, the Minister for Finance and the then Minister for Defence jointly released a media statement suggesting that the project will require an additional \$1.2 billion. This funding was approved in July 2015 at the expense of other Defence acquisitions.

A limited tender process was initiated on 29 May 2015 seeking proposals to either insert a managing contractor into ASC AWD Shipbuilder Pty Ltd for the remainder of the AWD build, or to further enhance ASC capability through a partnering agreement.

After completion of the Reform Interim Phase the Departments of Finance and Defence conducted a Limited Tender for Shipbuilding Management Services (SMS) and jointly agreed that Navantia was the preferred company to provide an experienced shipbuilding management team for insertion into ASC AWD Shipbuilder Pty Ltd.

The Departments of Finance and Defence have worked together to implement Long-Term Arrangements (LTAs) (in the form of Shipbuilding Management Services) aimed at ensuring the successful completion of the AWD Program with greater efficiency and effectiveness and consistent with international productivity levels.

The SMS contract was signed on 5 December 2015 and is a subcontract under ASC AWD Shipbuilder Pty Ltd.

Concurrently with the AWD build program, the AWD Transition Support Period (TSP) arrangements strategy is underway. Contract

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signature was achieved in December 2016 and the TSP Managing Contractor is working onsite with the Commonwealth sustainment office. Ship 1 was Provisionally Accepted by the Department of Defence on 16 June 2017 and Initial Materiel Release was achieved on 18 September 2017. Minister for Defence and Minister for Defence Industry announced the removal of SEA 4000 Phase 3 from the Projects of Concern list on 1 February 2018.
Uniqueness <p>The SEA 4000 Air Warfare Destroyer Program is currently one of Australia's largest and most technically complex Defence projects. The AWDs have been designated by the RAN as <i>Hobart</i> Class Guided Missile Destroyers (DDGs) and will be the RAN's first Aegis capable ships.</p> <p>The AWDs are being delivered through an Alliance based contract arrangement involving ASC AWD Shipbuilder, Raytheon Australia, and the Commonwealth, represented by Defence.</p>
Contractual Framework <p>The Alliance based contract arrangement was signed in October 2007. Key features of the AWD Alliance and the operations of the Alliance based contract arrangement include:</p> <ul style="list-style-type: none"> • The Alliance Industry Participants (Raytheon Australia and ASC AWD Shipbuilder) are jointly and severally responsible for the delivery of the three ships and their support systems. Each party remains individually responsible for compliance with all statutory requirements. • The Alliance is neither a legal body, nor a joint venture. • The legal and commercial basis for the Alliance is established through the Alliance Based Target Incentive Agreement (ABTIA) contract signed by all three participants. This establishes a virtual organisation under the governance of the AWD Alliance Board. <p>The Commonwealth entered into a Platform System Design contract with Navantia, the ship designer, in October 2007. This contract is managed by the AWD Alliance under the Alliance based contract arrangement.</p> <p>The Aegis combat system is being procured by the Commonwealth under the FMS agreement with the US Navy. This agreement is also managed within the AWD Alliance project team.</p> <p>While Navantia and the US Navy (and its equipment supplier, Lockheed Martin) are not part of the Alliance, they work closely with the Alliance and are treated in an alliance like manner.</p>
Major Risks and Issues <p>The major challenges the project faces are:</p> <ul style="list-style-type: none"> • Completing delivery of FMS elements and integration of the Hobart Class Combat System; and • Ensuring certification of equipment to allow acceptance of the capability.
Other Current Sub-Projects <p>SEA 4000 Phase 3.2 – Standard Missile SM-2 Missile conversion and upgrade. The conversion of the missiles will allow them to be used in the AWDs and provide an enhanced anti-aircraft and anti-ship missile defence capability. This project is managed by Joint Systems Division within Defence.</p> <p>SEA 4000 Phase 3.3 – This project is to deliver a tailored 20 week United States Navy (USN) Combat System Sea Qualification Trials (CSSQT) activity for each of the three AWDs. The project is to deliver the services component of the Hobart Class CSSQT which requires use of USN range facilities, analysis and assets. The USN CSSQT is a component of the SEA 4000 Operational Test and Evaluation program being executed by the Royal Australian Navy.</p> <p>AIR 9000 Phase 8 – This project is to fund modifications of the Hobart Class for interoperability with the MH-60R Seahawk 'Romeo' helicopter. Ship modifications are planned to be done post-ship delivery, with no impact to SEA 4000 Phase 3 schedule.</p>
Notes
Major risks and issues are excluded from the scope of the review.

Section 2 – Financial Performance

2.1 Project Budget (out-turned) and Expenditure History

Date	Description	\$m	Notes
	Project Budget		
Jun 07	Original Approved (Second Pass Approval)	7,207.4	
Jan 14	Real Variation – Transfer	(109.9)	1
Sep 15	Real Variation – Real Cost Increase	1,199.5	2
		1,089.6	
Jul 10	Price Indexation	1,173.2	3
Jun 18	Exchange Variation	(380.9)	
Jun 18	Total Budget	9,089.3	
	Project Expenditure		
Prior to Jul 17	Contract Expenditure – AWD Alliance	(5231.6)	

FY to Jun 18	Contract Expenditure – US Government	(1,122.7)	4
	Contract Expenditure – Navantia	(426.0)	
	Contract Expenditure – NATO Consortium	(72.4)	
	Other Contract Payments / Internal Expenses	(267.5)	
		(7,120.2)	4
	Contract Expenditure – AWD Alliance	(371.9)	
	Contract Expenditure – US Government	(49.6)	
	Contract Expenditure – Navantia	(11.3)	
	Other Contract Payments / Internal Expenses	(33.4)	
		(466.2)	
Jun 18	Total Expenditure	(7,586.4)	
Jun 18	Remaining Budget	1,502.9	
Notes			
1	In January 2014, a real cost decrease was approved to transfer project funds to Defence Estate and Infrastructure Group which has responsibility for AWD facilities related deliverables.		
2	In September 2015, following advice and approval from Government in July 2015, a revised Budget Approval Notice was provided authorising the Real Cost Increase to the AWD Budget. Included in the RCI was an estimated \$167.0m to cover indexation costs.		
3	Up until July 2010, indexation was applied to project budgets on a periodic basis. The cumulative impact of this approach was \$854.8m. In addition to this amount, the impact on the project budget as a result of out-turning was a further \$318.4m having been applied to the remaining life of the project.		
4	Other expenditure comprises: Operating expenditure, minor contract expenditure and other capital expenditure not attributable to the listed contracts. Figures are reported in cash terms.		

2.2A In-year Budget Estimate Variance

Estimate PBS \$m	Estimate PAES \$m	Estimate Final Plan \$m	Explanation of Material Movements
682.6	520.2	522.8	PBS-PAES: The variation is due to cost savings against the Alliance Based Target Incentive Agreement (ABTIA) as a result of Navantia being inserted into the Shipyard. This is followed by closure of unrealised formal risks and issues after the delivery of Ship 1 and further savings against the ABTIA indexation estimate budget, which has been reduced to better reflect expected movements in ABS indices. PAES-Final Plan: Variance is due to 2017-18 MYEFO, 2018-19 Pre-ERC & 2018-19 PBS Forex Updates.
Variance \$m	(162.4)	2.6	Total Variance (\$m): (159.8)
Variance %	(23.8)	0.5	Total Variance (%): (23.4)

2.2B In-year Budget/Expenditure Variance

Estimate Final Plan \$m	Actual \$m	Variance \$m	Variance Factor	Explanation
		18.4	Australian Industry	The AWD underspend for Financial Year 2017-18 is \$56.5m. See section 1.2 for details.
		(13.2)	Foreign Industry	
			Early Processes	
		(26.2)	Defence Processes	
		(35.5)	Foreign Government Negotiations/Payments	
			Cost Saving	
			Effort in Support of Operations	
			Additional Government Approvals	
		(56.5)	Total Variance	
		(10.8)	% Variance	
522.8	466.2			

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2.3 Details of Project Major Contracts

3. Details of Project Major Contracts

Contractor	Signature Date	Price at		Type (Price Basis)	Form of Contract	Notes
		Signature \$m	30 Jun 18 \$m			
US Government	Oct 05	842.7	1,094.7	FMS	FMS	1, 2
AWD Alliance	Oct 07	4,323.1	6,938.3	Variable with Pain/Gain Share	Alliance	3
Navantia	Oct 07	373.6	584.4	Fixed with indices escalation	Alliance based	3
NATO Consortium	Dec 09	78.5	72.4	FMS (NATO)	FMS (NATO)	2
Notes						
1	<p>The FMS Case established pre-Second Pass involved three contractual steps (initial version and two amendments); October 2005 for initial engineering services, April 2006 for long lead items and July 2006 for three ship sets of core Aegis Combat System Equipment. The resulting scope was in accordance with Government approval of SEA 4000 Phase 3.1. Post-Second Pass, there have been five further amendments to the FMS Case for additional equipment and services for both the AWD Program and the AWD Alliance. These amendments are in accordance with Government approval at Second Pass for the full scope of SEA 4000 Phase 3. There will be further amendments to the FMS Case to cover additional equipment and services for the project. The Price at Signature excludes \$167.5m spent in previous phases of the project.</p> <p>The Price at 30 June 2018 includes an increase of USD \$20m as per Amendment 10 of the LOA and excludes a current Alliance cost of \$208.2m for the purchase of FMS equipment to be supplied under the ABTIA contract.</p>					
2	Contract value as at 30 June 2018 is based on actual expenditure to 30 June 2018 and remaining commitment at current exchange rates, and includes adjustments for indexation (where applicable).					
3	As a result of the AWD Reform Strategy, the AWD Alliance (ABTIA) and Navantia (Platform System Design) contracts were renegotiated and new contracts signed in December 2015. The price is the value as per the new contract in out turned dollars (as at June 2018) using the Commonwealth cumulative escalation indices and includes ABTIA Direct Project Costs, Target Fee, Procurement Fee and the Shipbuilding Management Services costs.					
Contractor	Quantities as at		Scope	Notes		
	Signature	30 Jun 18				
US Government	3	3	Aegis Combat System			
AWD Alliance	3	3	Air Warfare Destroyer			
Navantia	N/A	N/A	Platform System Design and Services			
NATO Consortium	Classified	Classified	Evolved Sea Sparrow Missiles (ESSM)	1		
Major equipment received and quantities to 30 Jun 18						
Ship 01, HMAS <i>Hobart</i> , was provisionally accepted by Defence in June 2017. The Aegis Combat System for all three ships has been delivered. All ESSM procurement have been receipted and finalised by Maritime Explosive Ordnance Branch within Joint System Division (CASG).						
Notes						
1	Quantity being acquired is classified.					

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	AWD Program	Mar 08	N/A	Apr 08	1	
Preliminary Design	AWD Program	Dec 08	N/A	Feb 09	0	1
Critical Design	AWD Program	Dec 09	N/A	Feb 10	0	2
Support System Detailed Design Review	AWD Program	Jun 10	N/A	Aug 10	0	3
Notes						
1	The Preliminary Design Review (PDR) was conducted as scheduled in December 2008 and resulting actions completed as scheduled by February 2009.					
2	The Critical Design Review (CDR) was conducted as scheduled in December 2009 and resulting actions completed as scheduled by February 2010.					
3	The Support System Detailed Design Review (SSDDR) was conducted as scheduled in June 2010 and resulting actions completed August 2010.					

3.2 Contractor Test and Evaluation Progress

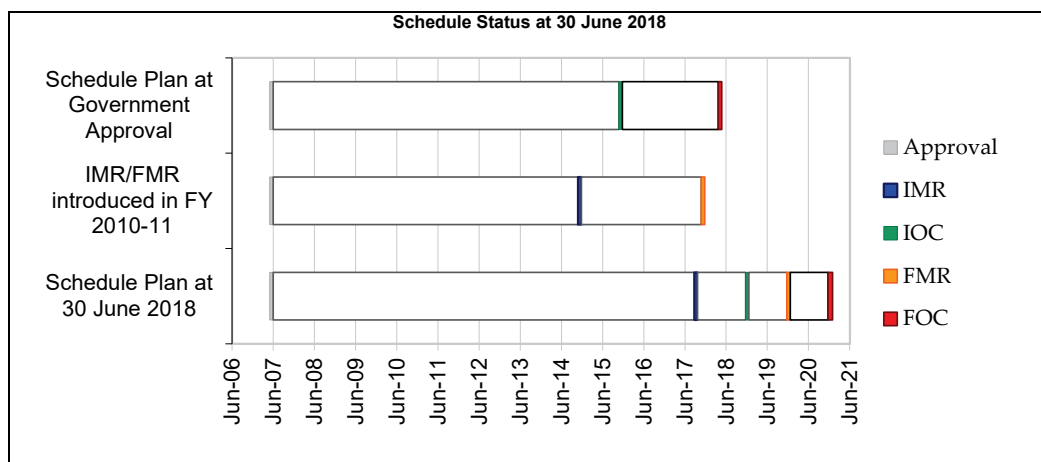
Test and Evaluation	Major System/Platform Variant	Original Planned	Current Planned	Achieved /Forecast	Variance (Months)	Notes
System Integration	Ship 1 – Complete Hull Integration	Dec 12	Mar 14	Mar 14	15	1, 3
	Ship 1 – Start Combat System Light Off	Dec 13	Nov 15	Nov 15	23	2, 3, 4
	Ship 2 – Complete Hull Integration	Mar 14	Dec 15	Dec 15	21	3, 4
	Ship 2 – Start Combat System Light Off	Mar 15	Apr 17	Apr 17	25	3, 4
	Ship 3 – Complete Hull Integration	Jun 15	Aug 17	Jul 17	25	3, 4
Acceptance	Ship 3 – Start Combat System Light Off	Jun 16	Sep 18	Sep 18	27	3, 4
	Ship 1 – Commencement of Category 5 Trials	Aug 14	Sep 16	Jan 17	29	3, 4
	Ship 1 – Provisional Acceptance	Dec 14	Jun 17	Jun 17	30	3, 4, 5
	Ship 2 – Commencement of Category 5 Trials	Nov 15	Dec 17	Mar 18	28	3, 4
	Ship 2 – Provisional Acceptance (Materiel Release 2)	Mar 16	Jul 18	Jul 18	28	3, 4
	Ship 3 – Commencement of Category 5 Trials	Feb 17	Jun 19	Jul 19	29	3, 4
	Ship 3 – Provisional Acceptance (Materiel Release 3)	Jun 17	Dec 19	Dec 19	30	3, 4
Notes						
1	Complete Hull Integration was achieved when the last erection joint was completed and has been structurally inspected and accepted.					
2	Start Combat System Light Off verified the readiness of the first set of installed combat system equipment for CAT 4 testing.					
3	In 2010 difficulties were encountered in relation to the engineering and construction of some of the first AWD hull blocks. This resulted in the reallocation of block work between BAE, Forgacs and Navantia and a revision to the delivery schedule. On 6 September 2012, the then Minister for Defence announced, that the AWD schedule would be re-baselined and that the revised AWD delivery dates would be March 2016, September 2017, and March 2019.					
4	In May 2015, following a Comprehensive Cost Review conducted by the AWD Alliance held in February, the then Minister for Defence announced that the delivery schedule had been changed to June 2017, September 2018 and March 2020 respectively. With the introduction by Navantia of an expert shipbuilding management team into the shipyard as part of the AWD Reform Long Term Arrangements for the AWD Reform, the delivery schedule for Ships 2 and 3 was brought forward by up to three months from prior schedule extension.					
5	Provisional Acceptance was achieved on 16 June 2017, followed by Initial Materiel Release (IMR) in September 2017.					

3.3 Progress Toward Materiel Release and Operational Capability Milestones

Item	Original Planned	Achieved/Forecast	Variance (Months)	Notes
Initial Materiel Release (IMR)	Dec 14	Sept 17	33	1, and see also Note 3 and 4 above
Initial Operational Capability (IOC)	Dec 15	Dec 18	36	1, and see also Note 3 and 4 above
Final Materiel Release (FMR)	Dec 17	Jan 20	25	1
Final Operational Capability (FOC)	May 18	Jan 21	32	1, 2
Notes				
1	The IMR, FMR and FOC dates have been reviewed and have been approved with the release of a revised Materiel Acquisition Agreement 2.0 in March 2018. Variances are directly attributable to the revised AWD delivery dates that were agreed as a result of the AWD reform strategy.			
2	FOC is scheduled 12 months after FMR.			

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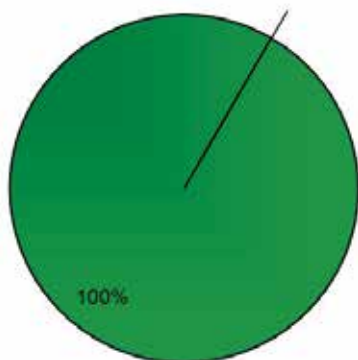
**Note**

Forecast dates in Section 3 are excluded from the scope of the review.

Section 4 – Materiel Capability Delivery Performance

4.1 Measures of Materiel Capability Delivery Performance

Pie Chart: Percentage Breakdown of Materiel Capability Delivery Performance

**Green:**

The Program **is** currently **meeting** materiel capability requirements as expressed in the suite of Capability Definition Documentation and in accordance with the requirements of the relevant Technical Regulatory Authorities.

Amber:

N/A

Red:

N/A

Note

This Pie Chart represents Defence's expected capability delivery. Capability assessments and forecast dates are excluded from the scope of the review.

4.2 Constitution of Initial Materiel Release and Final Materiel Release

Item	Explanation	Achievement
Initial Materiel Release (IMR)	One <i>Hobart</i> Class Ship System with up to Category 5 (sea acceptance) trials, testing and certification completed. Initial sustainment arrangements in place to support IOC. Training of the <i>Hobart</i> Class Systems for the commissioning crew to support IOC. IMR was achieved in September 2017.	Achieved.
Final Materiel Release (FMR)	All three <i>Hobart</i> Class Ship Systems with up to Category 5 (sea acceptance) trials, testing and certification completed. Combat System Through Life Support Facility delivered and ready for support. Training on the <i>Hobart</i> Class systems for the commissioning of crew 3. All sustainment arrangements in place to provide materiel support to the <i>Hobart</i> Class. FMR is expected to be achieved in January 2020.	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
1. Integration of the <i>Hobart</i> Class Combat System. Key Risks: <ul style="list-style-type: none"> Sonar – the software development and integration. 	Integrated Sonar testing was conducted in conjunction with DSTG during Ship 2 CAT 5 sea trials in early 2018. The comparison of the trial output data with modelling and analysis data will establish whether the integrated sonar requirements have been met. A way ahead is expected to be available by Q1 2019.
2. Capability Acceptance: Certification requirements are unclear for some equipment, and treatment of non-conformances could delay ship acceptance.	The Alliance has put in place a Quality Assurance process to manage non conformances, and a Project Certification Plan has been agreed with the RAN. As Ship 1 has successfully achieved Provisional Acceptance, the risk of missing objective quality evidence has not eventuated, and has been retired. All Safety certification required under FMS has been delivered to Alliance, no outstanding data. The small number of remaining risks should be retired when Ship 2 achieves IOR, scheduled for October 2018.
3. Subcontractor Performance: Subcontractor performance may result in poor quality product, delays or changed requirements.	This risk is retired. Subcontractor performance has been managed and equipment testing has been successful.
4. Support System: current data available to the Alliance and/or the Commonwealth may not be mature enough to achieve an optimised support system (maturity of Life Cycle Cost data, loss of project data that supports Through Life Support).	This risk has been transferred to sustainment. All support system products have been delivered, and the transfer of data has improved and is being managed by the Alliance.
5. Inadequate Configuration Management impact on Ship Acceptance.	This risk has been retired. Configuration Management is now the responsibility of DDG SPO.
Emergent Risks (risk not previously identified but has emerged during 2017-18)	
Description	Remedial Action
N/A	N/A

5.2 Major Project Issues

Description	Remedial Action
1. The delivery of FMS elements of the AWD supplies may not be possible, or may be delayed or compromised in integrity, due to the budget for FMS Engineering and Technical Assistance (ETA) not being sufficient.	Addition of funds to the Foreign Military Sales case has reduced the cost issue, and the issue will be reviewed after Ship 1 CSSQTs in Q4 2018.
2. Change Management: Change introduced to the existing platform design as a result of: <ul style="list-style-type: none"> Legislative or regulatory requirements, Safety requirements, Equipment obsolescence, Errors in the original design, and 	A Design Chill was implemented in 2011 to reduce the level of change rolling into the production baseline. Robust mechanisms to control obsolescence and change authorisation have been established within the Alliance and Program Office. Sustainment budgets now controlled by the DDG SPO.

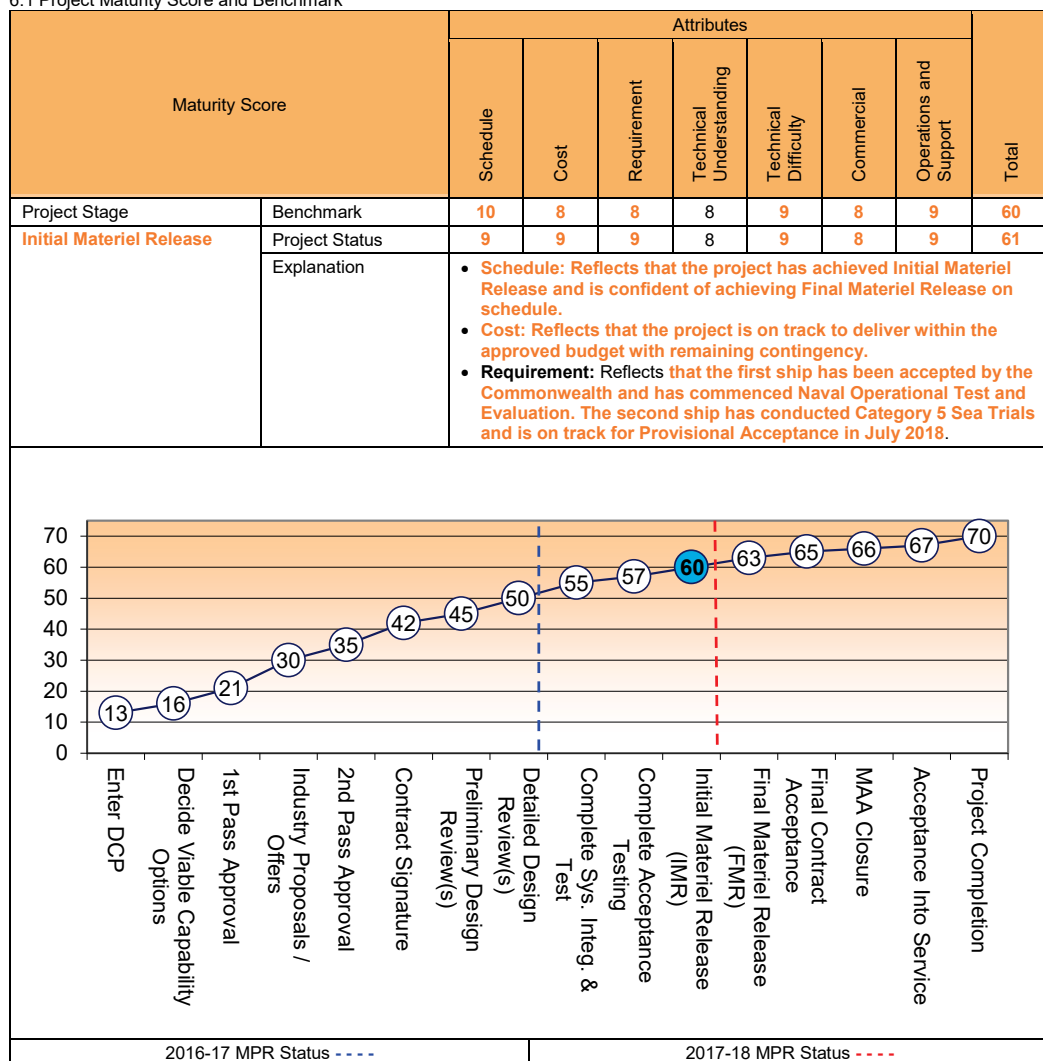
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<ul style="list-style-type: none"> Interrelated projects (e.g. AIR9000) Will impact cost and possibly schedule. Severity of the cost and schedule impacts to the Commonwealth will be dependent on the scope and timing of the change implementation relative to Ship completion. 	AWD Reform long term arrangements embed the designer on-site in order to reduce the change management overhead. This issue has been partially mitigated as all known changes have been assessed and treated. Legislative change is managed through approved contract changes and impact of the issue is reduced as the program nears completion.
Note	
Major risks and issues in Section 5 are excluded from the scope of the review.	

Section 6 – Project Maturity

6.1 Project Maturity Score and Benchmark



Section 7 – Lessons Learned

7.1 Key Lessons Learned

Project Lesson	Categories of Systemic Lessons
The AWD Reform has been successful and the key reason is due to implementing an experienced Management Team into the Shipbuilding Program who have previously built and designed the ship. First of Class ship build programs should have this support when building the first ship, allowing the local Australian workforce to be better prepared and trained to build the remaining ships.	Governance
The Hobart Class Combat System operation and performance has been proven on HMAS Hobart and NUSHIP Brisbane through acceptance tests at sea. The first-time success of this complex integration is due to thorough design and architecture early in project, along with the extensive use of on-shore test facilities closely replicating the ship environment. Close cooperation and regular dialogue with United States Navy colleagues were also important to ensure integration with the AEGIS weapon system.	Contract Management
The interpretation of the requirements of fitness for purpose of drawings is different between contracting parties. A review of all product types prior to contract and interrogation of the delivery schedule to confirm sufficient time for reviews and incorporation of comments is necessary.	Contract Management
The shipbuilding capacity of shipyards involved in a project like AWD needs to be assessed in detail in terms of precise capacity to undertake production engineering as well as the workload constraints of facilities, production supervision and overall workforce numbers taking into consideration the total contracts conducted at the shipyard in parallel.	Resourcing First of Type Equipment
The schedule that plans the transition from design to production needs detailed evaluation by the designer(s) and the production shipyard(s) to ensure the balance between commencing production and completing very detailed design is appropriately balanced and agreed.	Schedule Management

Section 8 – Project Line Management

8.1 Project Line Management in 2017-18

Position	Name
Division Head	Mr Patrick Fitzpatrick (Acting Feb 2017– Aug 2017) RADM Anthony Dalton (Aug 2017 – current)
Program Manager	CDRE Craig Bourke, RAN
Deputy Program Manager	Mr Greg McPherson