

Project Data Summary Sheet<sup>125</sup>

Project Number	AIR 5349 Phase 3
Project Name	EA-18G GROWLER AIRBORNE ELECTRONIC ATTACK CAPABILITY
First Year Reported in the MPR	2013-14
Capability Type	New
Acquisition Type	Australianised MOTS
Capability Manager	Chief of Air Force
Government 1st Pass Approval	Aug 12
Government 2nd Pass Approval	Apr 13
Budget at 2 <sup>nd</sup> Pass Approval	\$2,641.4m
Total Approved Budget (Current)	\$3,430.4m
2017-18 Budget	\$206.1m
Project Stage	Initial Materiel Release
Complexity	ACAT II



## Section 1 – Project Summary

## 1.1 Project Description

The EA-18G Growler Airborne Electronic Attack Capability provides for the acquisition of 12 Boeing EA-18G Growler aircraft, ALQ-99 Tactical Jamming Systems (TJS), associated weapons, support and training systems to establish an Airborne Electronic Attack (AEA) capability for the Australian Defence Force (ADF). In December 2014 the scope of the project was expanded to include the Mobile Threat Training Emitter System (MTTES) Electronic Warfare (EW) in Queensland and in the Northern Territory, plus air-to-air and anti-radiation weapons for training activities. In April 2017 the scope was further expanded to include the acquisition and integration of CEA Technologies Pty Ltd (CEA) training systems into the MTTES, to further enhance electronic warfare training outcomes across the Australian Defence Force (ADF).

## 1.2 Current Status

**Cost Performance**In-year

At **30 June 2018**, the project **had** spent **\$205.2m** against a budget of **\$206.1m**. The **underspend** of **\$0.9m** has been driven by **reduced costs** for US based Initial Operational Test and Evaluation (IOT&E) activities and **countermeasures procurements**.

Project Financial Assurance Statement

As at **30 June 2018**, project AIR 5349 Phase 3 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.

**Schedule Performance**

Despite the significant change of scope approved in April 2013 to acquire new aircraft in lieu of modification of existing Lot 33 F/A-18F Super Hornets, the project achieved the initial In-Service Date (ISD) milestone in January 2017, as well as the subsequent Initial Materiel Release (IMR) milestone on schedule on 14 February 2017, with accepted 'caveats'.

The IMR caveat relates to in country aircrew currency training capability, specifically the Tactical Operational Flight Trainer (TOFT) upgrade. TOFT establishment was delayed until July 2017 as a deliberate risk mitigation activity with nil impact on overall capability during the period in which it has been delayed.

All 12 EA-18G Australian aircraft have been accepted and transferred to the RAAF, and have arrived in Australia. The Project met

## 125 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.

<p>Australian airworthiness board timelines during 2016 to support Australian flight operations from the in-service date (ISD).</p> <p>No 6 Squadron has undergone a role change and now is responsible for operational command of the Growler capability.</p> <p>The existing Integrated Visual Environment Maintenance Trainers (IVEMTs) have been successfully upgraded to support F/A-18F and EA-18G maintenance training.</p> <p><b>Major Materiel Release (MR2) has been delayed from October 2017 to March 2019 due to a revised integration and certification strategy for the initial MTES training capability in Queensland. In the interim, aircrew training outcomes have been achieved through the US Navy.</b></p> <p>The project is due to achieve its next Major Materiel release (MR 3) milestone in <b>August 2018</b>. This milestone <b>principally relates to enabling capabilities and training devices for the delivered Growler aircraft.</b></p>
<p><b>Materiel Capability Delivery Performance</b></p> <p>The project remains on track to deliver a US Navy common Airborne Electronic Attack Capability based on the EA-18G aircraft and ALQ-99 TJS.</p> <p>The EA-18G Growler contains the ALQ-218 Radio Frequency Receiver System as well as the ALQ-227 Communications Countermeasures Set to receive broad spectrum radio frequency signals and subsequently disrupt or jam those signals with the ALQ-99 TJS. As the EA-18G Growler airframe is based on the F/A-18F Super Hornet Block II configuration, it retains an Air-to-Air capability with the APG-79 Radar and AIM-120 Advanced Medium Range Air to Air Missiles (AMRAAM) weapons. Additional AMRAAM tactical missiles and Captive Air Training Missiles (CATMs) are being procured for the expanded air combat fleet. The AIM-9X Sidewinder Air-to-Air missile as integrated on the F/A-18F Super Hornet is also being integrated onto the EA-18G with additional CATMs and tactical missiles for <b>Raise-Train-Sustain</b> (RTS) approved for acquisition in December 2014.</p> <p>The Australian EA-18G Growler will retain the capability for aircrew to train for the employment of AGM-88B High Speed Anti-Radiation Missiles (HARM) and AGM-88E Advanced Anti-Radiation Air to Ground Missiles (AARGM), with four HARM CATMs and eight AARGM CATMs being procured. Further, HARM and AARGM tactical missiles were approved for acquisition in December 2014 for RTS activities.</p> <p>The AN/ASQ-228 Advanced Targeting Forward Looking Infra-Red (ATFLIR) pod will also be integrated onto the EA-18G and 15 ATFLIR pods <b>have been</b> procured. Air Combat Manoeuvring Instrumentation pods <b>have also been</b> procured for the Growler fleet to maximise training effectiveness.</p> <p>In addition to modifying aircrew and maintenance training devices (<b>flight simulators and IVEMTs</b>) that were procured by AIR 5349 Phase 1 for the F/A-18F Super Hornet to enable training on either the F/A-18F or EA-18G, the project <b>has also acquired and delivered for installation</b>, an additional two Tactical Operational Flight Trainers (TOFTs) (flight simulators) to address the increased training requirements of the additional EA-18G Growler aircrew.</p> <p>The project plans to follow a similar approach taken to recent FMS acquisitions (including the F/A-18F Super Hornet) within the aviation domain to ensure compliance with Australian Defence Force airworthiness and workplace health and safety standards.</p> <p>The December 2014 approval of MTES will provide the ability for in-country EA-18G aircrew training through establishment of EW training range capabilities in Queensland and the Northern Territory. Establishment of these ranges will ensure EA-18G aircrew can train effectively without needing frequent deployments to use United States electronic combat ranges for skills development. MTES will enhance ADF EW training range capabilities. The Growler aircraft is just one of the many Defence assets that will use this training range capability.</p> <p>The April 2017 approval for Advanced MTES includes a number of CEA training systems, associated control equipment, initial training and support planning, integration into the broader MTES Command and Control system, and development of training programs.</p>
<p><b>Note</b></p> <p>Forecast dates and capability assessments are excluded from the scope of the review.</p>

### 1.3 Project Context

#### Background

Defence first considered an Airborne Electronic Attack Capability based on the EA-18G Growler as part of the Force Structure Review 2008 (FSR08). While it was noted that an Electronic Attack capability would have broad application in a range of contingencies, the decision at the time was to consider the capability further as part of FSR13. Notwithstanding, in 2008, the Government approved a production modification for the last 12 F/A-18F Super Hornet aircraft procured under AIR 5349 Phase 1, to enable future upgrade to EA-18G Growler configuration, should strategic circumstances dictate.

In early 2011, the US Department of Defence advised the ADF that the US Navy (the sole operator of the EA-18G Growler) would place its final order for these aircraft in the second half of 2012 and the production line would close in 2015. Accordingly, the US Navy advised that if Australia wished to economically acquire an Airborne Electronic Attack capability, the only feasible option would be to add any Australian requirements to the final US Navy production contract.

In August 2012, the Government approved acquisition of an Airborne Electronic Attack Capability based on the EA-18G Growler. The approved scope from this combined pass approval consisted of modification of 12 existing RAAF Lot 33 F/A-18F Super Hornets.

Defence continued to assess the risk associated with the ADF's air combat transition from the F/A-18A/B Hornet and the F/A-18F Super Hornet, to the F-35A Joint Strike Fighter and developed options for Government consideration – the Air Combat Capability Transition Review. In April 2013, the Government approved the preferred option, which included the acquisition of 12 new build EA-18G Growler aircraft in lieu of modification of existing F/A-18F Super Hornets.

The project classification is Australianised Military-Off-The-Shelf as there are a small number of Australian unique changes, such as ATFLIR and AIM-9X Stores Clearances.

The Acquisition Strategy for AIR 5349 Phase 3 is to procure the principal materiel elements of the capability through the US Government FMS program. Accordingly, a number of FMS cases have been established with Navy International Programs Office and Naval Air Systems Command for acquisition of the materiel components of the capability as well as aircrew and maintainer

## Project Data Summary Sheets

Auditor-General Report No.20 2018–19  
2017–18 Major Projects Report

training. Another FMS case will be utilised to acquire AIM-120 AMRAAM missiles from the US Air Force Security Assistance Command and the AMRAAM Joint Program Office. The procurement approach for the sustainment of the capability will mirror, and optimally leverage that already in place for the F/A-18F Super Hornet and will comprise a combination of Australian Industry based commercial support contracts, augmented where necessary with FMS case procured, US Government sourced products and services.

The Materiel System for the capability will comprise 12 Boeing EA-18G Growler aircraft, ALQ-99 TJSs, AIM-120 AMRAAM missiles, AGM-88B/E HARM/AARGM training missiles, alternate mission equipment, mission planning systems, training devices, spares and support and test equipment, as well as training for aircrew and maintenance personnel. The Airborne Electronic Attack architecture will be enabled by a US Navy common EW database.

Initially, both aircrew and maintenance personnel will be trained in the US utilising the US Navy's training system for the EA-18G Growler. Following the initial training of maintenance personnel, an EA-18G Growler maintenance training framework will be established at RAAF Base Amberley for ongoing training. For aircrew, training will remain in the US throughout the capability life cycle, supported by Defence managed FMS cases.

In December 2014 the scope of AIR 5349 Phase 3 was expanded to include EW training ranges in Queensland and Northern Australia, plus air-to-air and anti-radiation weapons for RTS activities. Additionally, ongoing EA-18G and F/A-18F aircrew training in the US was approved.

ACEASPO and AIR5349 Phase 3 have established a Support System for the capability, which leverages the significant configuration commonality between the F/A-18F Super Hornet and the EA-18G Growler. Existing support contracts have been modified to include sustainment products and services for the EA-18G Growler, in a similar way to that already in place for the F/A-18F Super Hornet. In addition, US Government FMS cases delivering sustainment products and services have been amended or replaced with arrangements including both F/A-18F and EA-18G systems. Notably, consistent with the Air Combat Capability Transition Review outcomes agreed by Government, the majority of F/A-18F and EA-18G aircrew training has moved to the US as No.6 Squadron has changed from being the F/A-18F training squadron to the EA-18G operational squadron. No. 1 Squadron will retain some Super Hornet aircrew training responsibilities.

Further Government approval in April 2017 provides for acquisition and integration of CEA threat training systems into the MTES.

**In January 2018 an incident involving an in-service EA-18G aircraft occurred in the US at Nellis Air Force Base (near Las Vegas). Investigations into the incident are ongoing and aircraft have since resumed flight operations. These investigations and any resultant actions will be carried out by the Defence Flight Safety Bureau.**

#### Uniqueness

Noting that AIR5349 Phase 3 shares many common aspects with AIR5349 Phase 1 and the acquisition of the F/A-18F Super Hornet, the primary area of uniqueness resides in the introduction of an offensive radio frequency Electronic Attack capability, and the underpinning materiel enablers for this new warfare domain for the ADF.

#### Major Risks and Issues

Several risks have been identified with supply of MTES hardware to meet schedule, as well as the timely establishment of MTES operation and maintenance support contracts. The risk of RAAF EA-18G structural life of type being inadequate to meet planned withdrawal date is a longer term consideration that will continue to be monitored over the life of the capability. Participation in the USN F/A-18 E/F Service Life Assessment and Extension program (SLAP/SLEP) will mitigate this risk.

**The emergent risk of adapting USN doctrine and command and control structures for EA-18G to the Australian context will be mitigated by the assignment of resources to the development of ADF doctrine and command and control frameworks.**

**The Estate and Infrastructure Group Project to upgrade Northern Australian Range facilities for MTES has run over budget. A submission seeking approval for the realignment of the program budget to enable completion of facilities effort without delay through FY20/21 is being developed.**

**Late delivery of MTES systems is being mitigated through additional use of US training ranges.**

#### Other Current Sub-Projects

**AIR 5349 Phase 1 – Bridging Air Combat Capability:** Provision of 24 F/A-18F Super Hornets and associated supplies and support. Some AIR 5349 Phase 1 delivered supplies will be shared with AIR 5349 Phase 3. AIR 5349 Phase 3 will augment AIR 5349 Phase 1 delivered support arrangements.

**AIR 5349 Phase 2 – Bridging Air Combat Capability Weapons:** Provision of Air-to-Air and Air-to Surface Weapons and expendables for the F/A-18F Super Hornet. AIR 5349 Phase 2, through a Memorandum of Agreement (MOA) with AIR 5349 Phase 3, is managing the acquisition and introduction into service of the EA-18G weapons (AIM-120 AMRAAM, AIM-9X Sidewinder, AGM-88B HARM and AGM-88E AARGM) and expendables.

**AIR 5349 Phase 6 – Advanced Growler: Establishing a co-operative agreement with USN to develop replacement jamming capability, further Electronic Attack capability development activities and acquisition of anti-radiation weapons.**

#### Note

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
<b>Project Budget</b>			
Aug 12	Original Approved	1,155.3	1
Apr 13	<b>Subsequent Second Pass Approval – New build aircraft</b>	1,486.1	2
Apr 13	<b>Total at Second Pass Approval</b>	<b>2,641.4</b>	
Dec 14	Real Variation – Scope	200.6	3
Jan 16	Real Variation – Financial Reduction	(267.9)	4
Nov 16	Real Cost Decrease	(100.0)	5
May 17	Real Variation – Scope (ADV MTES)	102.7	6
Aug 17	<b>Real Variation – Financial Reduction</b>	<b>(27.0)</b>	10
		<b>(91.6)</b>	
Jun 18	Exchange Variation	<b>880.6</b>	
Jun 18	Total Budget	<b>3,430.4</b>	
<b>Project Expenditure</b>			
Prior to Jul 17	Contract Expenditure – US Government (AT-P-SCI)	(1,253.7)	7
	Contract Expenditure – US Government (AT-P-LEN)	<b>(608.1)</b>	7,11
	Contract Expenditure – US Government (AT-D-YLB)	<b>(43.1)</b>	7,11
	Contract Expenditure – US Government (AT-P-AZN)	<b>(41.0)</b>	7,11
	Contract Expenditure – US Government (AT-P-GUW)	<b>(39.6)</b>	7,11
	Contract Expenditure – US Government (AT-P-GTM)	<b>(33.6)</b>	7,11
	Other Contract Payments / Internal Expenses	<b>(76.4)</b>	8,11
	<b>Accrued FMS Payment FY16/17 included (Cash FY17/18)</b>	<b>(2,095.5)</b>	
FY to 30 Jun 18	Contract Expenditure – US Government (AT-P-GUW)	<b>(40.5)</b>	7
	<b>Contract Expenditure – CEA Technologies</b>	<b>(31.9)</b>	7
	Contract Expenditure – US Government (AT-D-YLB)	<b>(26.2)</b>	7
	<b>Contract Expenditure – US Government (AT-P-SCI)</b>	<b>(24.3)</b>	7
	Contract Expenditure – US Government (AT-P-LEN)	<b>(22.5)</b>	7
	Contract Expenditure – US Government (AT-P-AZN)	<b>(22.4)</b>	7
	Contract Expenditure – US Government (AT-P-GTM)	<b>(12.5)</b>	7
	Other Contract Payments / Internal Expenses	<b>(24.9)</b>	9
		<b>(205.2)</b>	
FY to Jun 18	<b>Total Expenditure</b>	<b>2,300.7</b>	
Jun 18	<b>Remaining Budget</b>	<b>1,129.7</b>	
<b>Notes</b>			
1	Government approval in August 2012 for modification of Super Hornet aircraft to EA-18G Growler configuration and acquisition of associated Electronic Attack equipment.		
2	Government approval in April 2013 to change acquisition strategy to acquisition of new-build aircraft rather than modification of existing aircraft.		
3	Government approval in December 2014 for inclusion of Growler Enabling capabilities – MTES and RTS Weapons.		
4	Real Cost reduction – MAA 3.1 amendment processed January 2016 – for transfer of project funds to offset Growler Facilities funding shortfall, and return of surplus funds to the Defence Capability Plan.		
5	Real Cost Decrease – MAA 3.2 amendment processed September 2016 – representing a reduction of Project Contingency due to the mitigation of aircraft production risk.		
6	Government approval in April 2017 for acquisition and integration of CEA systems into the MTES.		
7	The scope of this contract is explained further in Section 2.3 – Details of Project Major Contracts.		
8	Other expenditure comprises: Operating expenditure, contractors, consultants, other capital expenditure not attributable to the aforementioned contracts and minor contract expenditure.		
9	Other Expenditure comprises: <b>Commercially Contracted resource support (\$13.4m)</b> FMS Weapons procurement – Case AT-P-AYW <b>(\$2.9m)</b> <b>FMS services AT-P-GSF (\$3.9m)</b> <b>Operational Test and Evaluation activities (\$1.2m)</b>		

### Project Data Summary Sheets

Auditor-General Report No.20 2018–19  
2017–18 Major Projects Report

	Remaining expenditure comprises: Operating expenditure, , and other capital expenditure not attributable to the aforementioned contracts and minor contract expenditure.
10	Project contribution to investment program rebalancing activity. Will be formally recognised as real cost reduction with V4.1 MAA submission and approval mid-2018.
11	Adjustment to previously reported pre Jul 17 LTD spend to reflect directed change in reporting basis from accrual to cash (affected individual contracts: FMS cases - ATDYLB \$18.428m, ATPAZN \$7.244m, ATPGUW \$5.927m, ATPLEN \$4.448m, ATPGTM \$2.107m, ATPAYW \$1.580m and ATPGSF \$1.317m; and Other expenditure \$0.749m)

## 2.2A In-year Budget Estimate Variance

Estimate PBS \$m	Estimate PAES \$m	Estimate Final Plan \$m	Explanation of Material Movements
225.3	213.7	206.1	<p>PBS – PAES: The budget variation is due to:</p> <ol style="list-style-type: none"> <li>1) Cost savings and minor delays against a range of FMS and non-FMS procurement requirements which has resulted in some reprogramming to future financial years (net \$4m); and</li> <li>2) The foreign currency exchange price basis adjustment down from PBS 2017-18 to MYEFO 2017-18 (\$7m)</li> </ol> <p>PAES – Final Plan: Key driver to the variance is:</p> <ol style="list-style-type: none"> <li>1) FMS Weapons - missiles and AU commercial - countermeasures acquisition - forecasts still variable,</li> <li>2) Schedule slip to FY18/19 (CMN-4, DTU, AAE) and reduced transport and preservation charges, and</li> <li>3) MTES Reduced and rephased Battle Management System costs, lower authentic costs, and some schedule movement to FY18/19.</li> </ol>
Variance \$m	(11.6)	(7.6)	Total Variance (\$m): (19.2)
Variance %	(5.1)	(3.6)	Total Variance (%): (8.5)

## 2.2B In-year Budget/Expenditure Variance

Estimate Final Plan \$m	Actual \$m	Variance \$m	Variance Factor	Explanation
			Australian Industry	The 2017-18 EOFY position reflects FMS payments processed in June, savings from Air Force Test and Evaluation activities, minimal funding for countermeasures requirements.
			Foreign Industry	
			Early Processes	
		(0.1)	Defence Processes	
		0.0	Foreign Government	
			Negotiations/Payments	
		(0.8)	Cost Saving	
			Effort in Support of Operations	
			Additional Government Approvals	
		(0.9)	Total Variance	
206.1	205.2	(0.44)	% Variance	

## 2.3 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 (AT-P-LEN)	Aug 12	944.2	711.3	Reimbursement	FMS	1, 2, 7
US Government (AT-P-AZN)	May 13	36.2	78.8	Reimbursement	FMS	1, 2
US Government (AT-P-SCI)	Jul 13	1,313.1	1,527.1	Reimbursement	FMS	1, 2
US Government (AT-P-GTM)	Sep 13	19.3	181.0	Reimbursement	FMS	1, 2, 3
US Government (AT-P-GUW)	Feb 15	88.6	149.6	Reimbursement	FMS	1, 2, 5
US Government (AT-D-YLB)	Feb 15	84.6	129.6	Reimbursement	FMS	1, 2, 4
CEA Technologies Pty Ltd	Jun 17	87.3	85.3	Firm	Official Order	6
Notes						
1	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)					
2	The scope of this contract is explained further below.					
3	The large increase in the value of this contract reflects an increase in the training already being procured.					

4	This contract is for the acquisition of AMRAAM missiles and is being managed by Guided Weapons Branch through an FMS case established as part of the AIR 5349 Phase 2 Bridging Air Combat Capability Project.			
5	The value of this contract has increased to reflect higher actual costs for equipment being procured to support the MTTES capability.			
6	This contract is for the acquisition of the Advanced MTTES CEA Technologies Pty Ltd systems			
7	The contract value for AT-P-LEN was decreased significantly in June 2018, with the realisation of savings across a range of supplies and support services.			
Contractor	Quantities as at		Scope	Notes
	Signature	30 Jun 18		
US Government (AT-P-LEN)	Various	Various	Advanced Electronic Attack Kits, ALQ99 TJSs, Launchers, Launch computers, Joint Mission Planning System and Software	
US Government (AT-P-AZN)	12	Various	HARM and AARGM training missiles, tactical missiles, associated support equipment and training	
US Government (AT-P-SCI)	12	12	EA-18G aircraft, associated spares and support equipment	
US Government (AT-P-GTM)	N/A	N/A	Initial Aircrew and Maintenance Training	
US Government (AT-P-GUW)	Various	Various	EW training ranges systems including threat emitter systems, range control and debrief systems, associated IT, spares, support equipment, integration and test services.	
US Government (AT-D-YLB)	Various	Various	Weapons – AIM-120 C7 AMRAAM air-to-air missiles and associated support equipment and infrastructure	
CEA Technologies Pty Ltd	Various	Various	Advanced MTTES – CEA Technologies Pty Ltd systems – various threat emulation systems, support equipment and services	
Major equipment received and quantities to 30 Jun 18				
Transfer of ownership for aircraft procured under ATPSCI commenced in Jan 17 and transfer of all 12 aircraft is now complete. Upgrade of the two existing Tactical Operational Flight Trainers (TOFTs) to enable both F/A-18F and EA-18G training. Delivery of the H12(A) Software configuration set and associated flight clearance recommendation.				

### 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	EA-18G Aircraft	N/A – Military Off the Shelf				
	Aircraft Software – SCS H10A	Jan 14	N/A	Jan 14	0	
	Mission Planning System	May 14	N/A	May 14	0	
	ALQ-99 TJS	N/A – Military Off the Shelf				
	Modified TOFTs	Nov 14	N/A	Jul 15	8	1, 3
	New-build TOFTs	Nov 14	N/A	Apr 15	5	2
	Modified Integrated Visual Environment Maintenance Trainers(IVEMTs)	Nov 14	N/A	Jul 15	8	3
Preliminary Design	EA-18G Aircraft	N/A – Military Off the Shelf				
	Aircraft Software SCS H10A	Jun 14	N/A	Jun 14	0	4
	Mission Planning System	Aug 14	N/A	Sep 14	1	
	ALQ-99 TJS	N/A – Military Off the Shelf				
	Modified TOFTs	May 15	N/A	Aug 15	3	1, 3
	New-build TOFTs	May 15	N/A	Mar 16	10	2
	Modified IVEMTs	May 15	N/A	Oct 15	5	3
Critical Design	EA-18G Aircraft	N/A – Military Off the Shelf				
	Aircraft Software SCS H10A	Jun 14	N/A	Jun 14	0	4
	Mission Planning System	Sep 14	N/A	Jan 15	4	
	ALQ-99 TJS	N/A – Military Off the Shelf				
	Modified TOFTs	May 15	N/A	Aug 15	3	1,3
	New-build TOFTs	May 15	N/A	Mar 16	10	2
	Modified IVEMTs	May 15	N/A	Oct 15	5	3
Notes						
1	Modified TOFT's contract awarded April 2015.					

### Project Data Summary Sheets

Auditor-General Report No.20 2018–19  
2017–18 Major Projects Report

2	Revised date reflects post contract award schedule.
3	Revised date reflects delay in contract award and updated schedule.
4	SCS H10A Preliminary Design Review (PDR) and Critical Design Review (CDR) (held by US Navy) was a combined event, hence dates are the same.

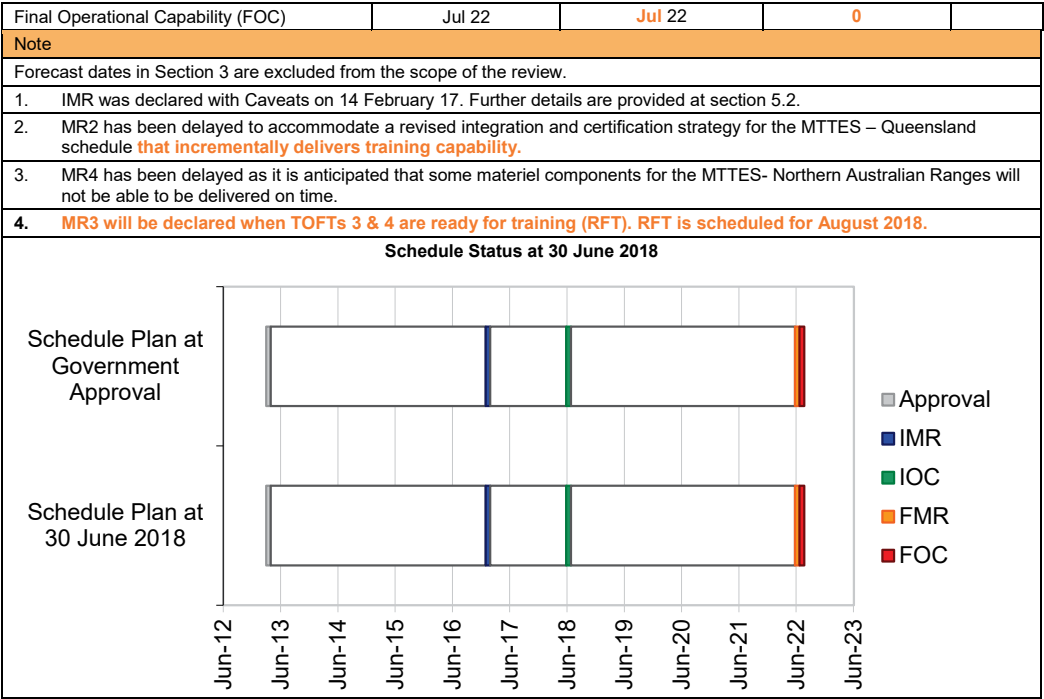
### 3.2 Contractor Test and Evaluation Progress

Test and Evaluation	Major System/Platform Variant	Original Planned	Current Planned	Achieved /Forecast	Variance (Months)	Notes
System Integration	EA-18G Aircraft	Jun 16	N/A	Jul 16	1	1
	Aircraft SCS H10A	Jul 16	N/A	Jul 16	0	1
	Mission Planning System	Jul 16	N/A	Jul 16	0	1
	ALQ-99 TJS	Jul 16	N/A	Jul 16	0	1
	Modified TOFTs	Sep 16	N/A	Jul 17	10	2
	New-build TOFTs	Sep 17	N/A	Jul 18	10	3
	Modified IVEMTs	Oct 16	N/A	Sep 16	(1)	
	MTTES–Queensland Ranges	Oct 17	N/A	Mar 19	17	4
Acceptance	MTTES – Northern Australian Ranges	TBD	N/A	TBD	0	5
	EA-18G Aircraft	Jul 16	N/A	Jul 16	0	1
	Aircraft Software –SCS H10A	Jul 16	N/A	Jul 16	0	1
	Mission Planning System	Jul 16	N/A	Jul 16	0	1
	ALQ-99 TJS	Jul 16	N/A	Jul 16	0	1
	Modified TOFTs	Jan 17	N/A	Jul 17	6	2
	New-build TOFTs	Sep 17	N/A	Aug 18	11	3
	Modified IVEMTs	Nov 16	N/A	Nov 16	0	
	MTTES–Queensland Ranges	Oct 17	N/A	Mar 19	17	4
	MTTES – Northern Australian Ranges	TBD	N/A	TBD	0	5
<b>Notes</b>						
1	US Navy conduct a combined development and acceptance test program encompassing aircraft, SCS H10A, mission planning system, stores integration testing including the ALQ-99 TJS. Accordingly, dates for system integration and acceptance testing reflect the same schedule window.					
2	Modification of the TOFTs was deliberately delayed as a risk mitigation activity which ensures that US based TOFT upgrades will be completed prior to execution of the Australian based TOFT upgrade. <b>The TOFTs were accepted with known deficiencies requiring remediation.</b>					
3	Delay to new build TOFTs has been caused by limited contractor availability to conduct the installation at Amberley.					
4	MTTES – Queensland range schedule has been delayed to accommodate a revised integration and certification strategy <b>that incrementally delivers training capability.</b>					
5	MTTES – Northern Australian range schedule is still being baselined as some of the US Government work remains pre-contract.					

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

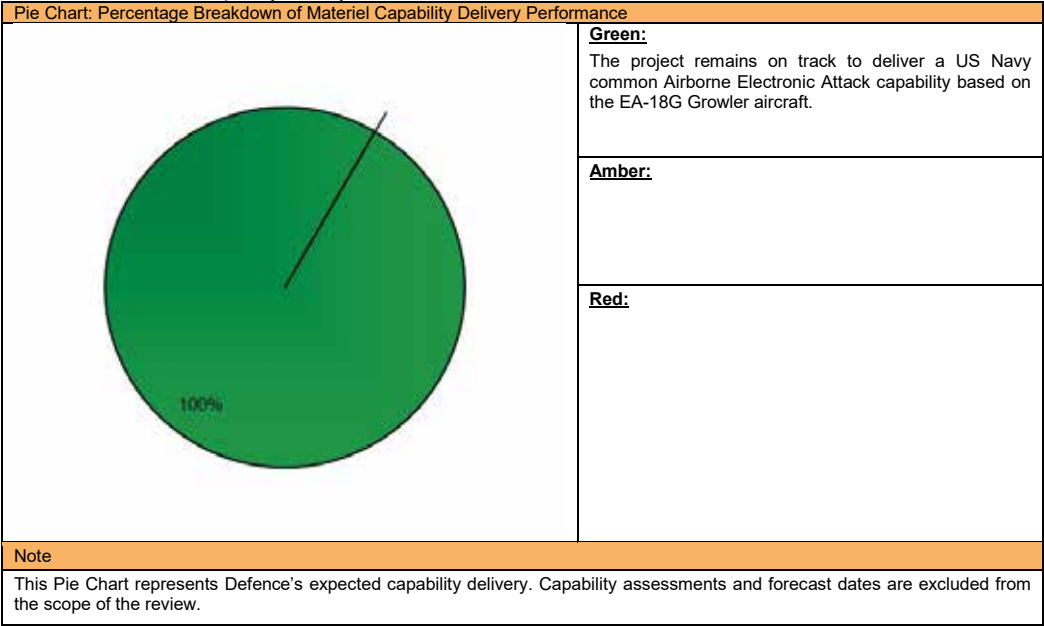
Item	Original Planned	Achieved/Forecast	Variance (Months)	Notes
Initial Materiel Release (IMR)	Feb 17	Feb 17	0	1
In-Service Date (ISD)	Jan 17	Jan 17	0	
Initial Operational Capability (IOC)	Jul 18	Jul 18	0	
Materiel Release 2 (MR2) <b>MTTES QLD</b>	Oct 17	Mar 19	17	2
Materiel Release 3 (MR3) <b>Various systems</b>	Jul 18	Aug 18	1	4
Materiel Release 4 (MR4) <b>MTTES Northern Australia</b>	Mar 19	Jun 20	15	3
Materiel Release 5 (MR5) <b>Additional Stores and Stores clearances</b>	Jul 19	Jul 19	0	
Materiel Release 6 (MR6) <b>MTTES Northern Australia</b>	Mar 20	Mar 20	0	
Materiel Release 7 (MR7) <b>ADV MTTES</b>	Jul 20	Jul 20	0	
Materiel Release 8 (MR8) <b>ADV MTTES</b>	Jul 21	Jul 21	0	
Final Materiel Release (FMR)	Jul 22	Jul 22	0	





Section 4 – Materiel Capability Performance

4.1 Measures of Materiel Capability Delivery Performance



4.2 Constitution of Initial Materiel Release and Final Materiel Release

Item	Explanation	Achievement
Initial Materiel Release (IMR)	<ul style="list-style-type: none"><li>At least six new-build EA-18G aircraft in USA and associated equipment delivered to support Initial Operational Test and Evaluation (IOT&amp;E) programs.</li></ul>	Achieved with caveats



	<ul style="list-style-type: none"> <li>Sufficient aircrew and maintenance personnel to support Growler operations from ISD.</li> <li>Initial in-country aircrew training.</li> </ul> <p>IMR was declared on 14 February 2017 with caveats. The caveats associated with this declaration <b>have since been satisfied</b></p>	
Final Materiel Release (FMR)	<ul style="list-style-type: none"> <li>All 12 EA-18G aircraft delivered.</li> <li>All assets, equipment and spares delivered.</li> <li>All acquisition tasks completed and transitioned to sustainment organisation completed.</li> <li><b>MTTES operating at the Queensland and Northern Australian ranges</b></li> </ul> <p>FMR is a future dated milestone projected for <b>July 2022</b>.</p>	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 possibility that the level of Australian unique development required to meet the MTTES requirements will need design, manufacture, integration and certification effort that cannot be completed within the MAA milestone dates (MR2, MR4 & MR6).	MTTES is currently in initial design phases. During the scoping phase of the project, the team will aim to identify areas of greatest technical risk and treat as appropriate. The project has established and is implementing a revised integration and certification strategy.
There is a possibility that the Structural Life Of Type of the RAAF EA-18G aircraft may be inadequate to support the planned withdrawal date.	Participation in the USN F/A-18E/F Service Life Assessment & Extension Program
Emergent Risks (risk not previously identified but has emerged during 2016-17)	
Description	Remedial Action
<b>There is a possibility that current USN doctrine and command and control structure for the EA-18G platform cannot be adequately modified for ADF operations</b>	<b>The Growler Transition Office have successfully bid for resources to address the issue. They are engaging Headquarters Joint Operations Command (HQJOC) to develop and improve command and control frameworks and processes.</b>

### 5.2 Major Project Issues

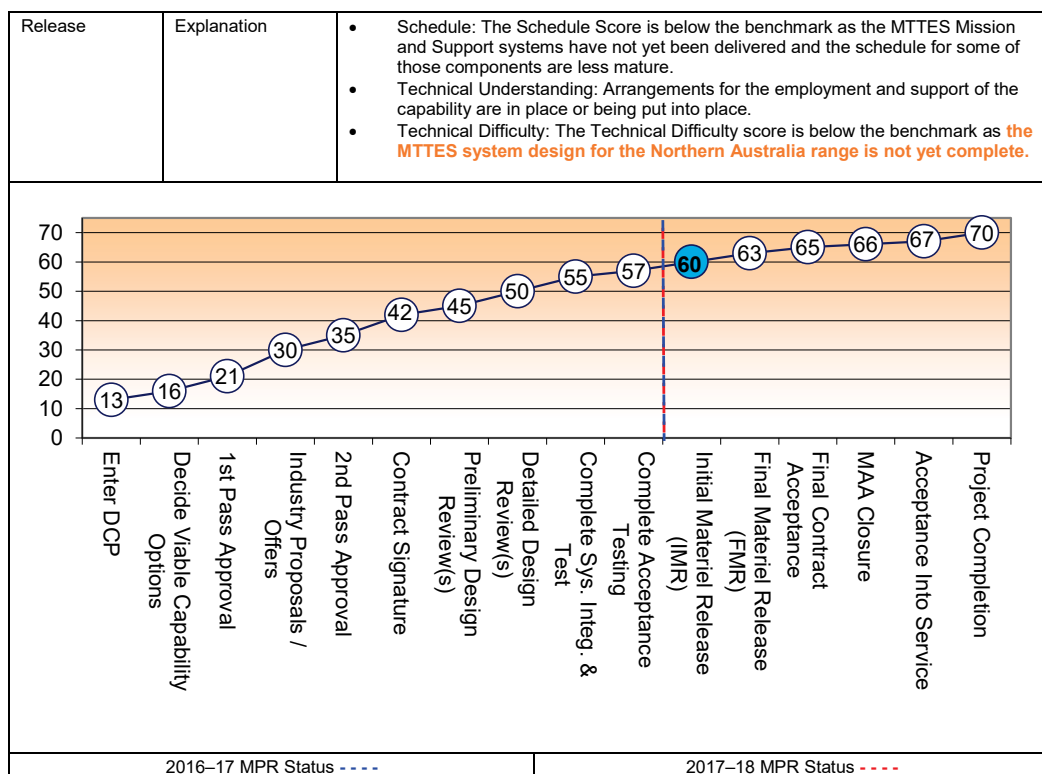
Description	Remedial Action
Late Delivery of the upgrade to the Tactical Operational Flight Trainers (TOFTs).	<b>This issue has been closed with the TOFT upgraded and ready for training in July 2017.</b>
Late Delivery of Aircrew Computer Based Training (CBT).	<b>This issue has been closed with delivery of the Computer based training in January 2018.</b>
<b>Late Delivery of MTTES Systems</b>	<b>Certification of MTTES Prime Products for Queensland was due in October 17. Delays are being mitigated by use of alternative systems and an incremental approach to the delivery of training capability. Additional US based training has been scheduled to ensure aircrew training is accomplished.</b>
<b>Northern Australian Ranges facilities over budget</b>	<b>Requested realignment of budget to enable completion of facilities effort without delay through FY20/21.</b>

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

Maturity Score		Attributes							Total
		Schedule	Cost	Requirement	Technical Understanding	Technical Difficulty	Commercial	Operations and Support	
Project Stage	Benchmark	10	8	8	8	9	8	9	60
Initial Materiel	Project Status	8	8	8	9	8	8	9	58



## Section 7 – Lessons Learned

### 7.1 Key Lessons Learned

Project Lesson	Categories of Systemic Lessons
For appropriate management according to Defence best practice benchmarks, allocation of project management resources is required immediately on project approval, particularly for projects with primarily FMS acquisition strategies. These projects inherently experience significant lag between Second Pass approval and schedule and financial management maturity, due to the lag between FMS case establishment and initial prime acquisition contracts when compared to commercially based acquisitions. The delay in achieving maturity benchmarks are only exacerbated when resourcing is not applied early in the acquisition life cycle.	Resourcing
<b>Workforce planning considerations need to capture project drawdown and closure resourcing requirements. If the project workforce is reduced too early, or if key roles are not maintained there is risk to project performance and good governance.</b>	Resourcing

## Section 8 – Project Line Management

### 8.1 Project Line Management in 2017-18

Position	Name
Division Head	AVM Catherine Roberts
Branch Head	AIRCDRE Gregory Hoffmann
Project Director	Mr Gavin Healy (to <b>Aug 17</b> ) <b>Vacant (Aug 17-Dec 17)</b> <b>Ms Justine Baker (Acting Dec 17–current)</b>
Project Manager	WGCDR Andrew Harrigan (to <b>Dec 17</b> ) <b>Mr Francis Healy (Jan 18 –current)</b>

## Project Data Summary Sheets

Auditor-General Report No.20 2018–19  
2017–18 Major Projects Report