

Major Projects Report 2012-13

Introduction

- 2.1 This chapter provides an overview of the 2012-13 Major Projects Report (MPR) and a summary of the Australian National Audit Office (ANAO)'s findings in regard to cost performance; schedule performance; capability performance; and governance and business processes.
- 2.2 The MPR is structured into three parts:
- Part 1: ANAO review and analysis, which includes:
 - ⇒ Analysis on the three key elements of the Project Data Summary Sheets (PDSSs): cost, schedule and capability performance.
 - ⇒ Longitudinal analysis of projects over time.
 - ⇒ Discussion of general issues, not within the direct scope of the assurance audit, in particular governance and business processes.
 - ⇒ Noting of any interesting or unusual patterns evident from DMO's project data.
 - Part 2: DMO overview of strategic performance and project performance. This includes:
 - ⇒ Consolidated information on the status of Major Projects, such as cost and schedule, reflected by the PDSSs.
 - ⇒ Discussion of Major Projects' progress or challenges.
 - Part 3: Auditor-General's independent review report; DMO Chief Executive Officer's statement and 29 PDSSs.
 - ⇒ Several appendices provide information for ease of reference.
- 2.1 The collection of PDSSs for each of the 29 selected projects form the largest portion of the MPR. The PDSS are presented in a form compliant with

Guidelines endorsed by the JCPAA.¹ In their current form, the PDSSs are structured as follows:

- Section 1: project summary;
- Section 2: financial performance;
- Section 3: schedule performance;
- Section 4: project cost and schedule status;
- Section 5: materiel capability performance;
- Section 6: major risks and issues;
- Section 7: project maturity;
- Section 8: lessons learned; and
- Section 9: project line management.

2.2 In terms of presentation, the PDSSs were largely unchanged from 2011-12, although in places the Guidelines altered the process used to compile the data and information.

Major Projects reviewed in 2012-13

2.3 The 29 Major Projects in this year's report and their approved budgets appear in Table 2.1 below. Project entry into the MPR is based on selection criteria found in section 1.7 of the Guidelines.² The DMO considers around 180 Major Projects to be "major acquisition projects".³ The total value of all Major Projects is around \$80 billion; the MPR covers \$44 billion of this value.⁴

2.4 Major Projects are complex, a point acknowledged by the Auditor-General in his opening remarks in the MPR.⁵ Meeting cost, schedule and capability targets should be considered in this context, particularly for developmental projects. In last year's MPR, DMO summarised the range of issues affecting the completion of Major Projects:

- Managing induced schedule delays as a result of budgetary constraints...;
- Employing and maintaining an appropriately skilled workforce. ... particularly... where the skills required are in high demand by other Australian industries;

1 *Major Projects Report 2012-13*, p.515.

2 See Appendix 5 of the *Major Projects Report 2012-13* pp.516-517.

3 *Major Projects Report 2012-13*, p.99.

4 DMO, Submission No.3, p.2.

5 *Major Projects Report 2012-13*, p.11.

- Acquiring new equipment presents multiple integration challenges for projects, and existing platforms...;
- Overestimating by contractors of the technical maturity of proposed equipment solutions and underestimating the level of effort and complexity required to deliver new equipment...;
- The unavailability of in-service equipment, due to operational requirements, may limit the ability of projects to install and test new or upgraded equipment in accordance with the original planned project schedule;
- Accelerating the maturity of the maintenance operations and supply chains for new equipment to support the transition to in-service use by ADF units;
- Complying with increasingly demanding certification and regulatory requirements; [and]
- Ensuring access to intellectual property to enable continued further enhancement and improvement of systems.⁶

2.3 The Committee acknowledges these various challenges.

2.4 By 31 August each year, ANAO advises the Committee of projects proposed to be entered (or exited) from the MPR, together with the draft Guidelines for the forthcoming reporting period, which the Committee endorsed in September 2012.

Table 2.1 29 MPR projects and approved budgets at 30 June 2013

Project Name (Project Number)	DMO Abbreviation	Budget (\$m)
1. Air Warfare Destroyer Build (SEA 4000 Ph 3)	AWD Ships	7,869.2
2. Airborne Early Warning and Control Aircraft (AIR 5077 Ph 3)	Wedgetail	3,843.7
3. Multi-Role Helicopter (AIR 9000 Ph 2/4/6)	MRH90 Helicopters	3,649.9
4. Bridging Air Combat Capability (AIR 5349 Ph 1/2)	Super Hornet	3,556.0
5. Amphibious Ships (LHD) (JP 2048 Ph 4A/4B)	LHD Ships	3,073.5
6. Future Naval Aviation Combat System Helicopter (AIR 9000 Ph 8)	MH-60R Seahawk	2,958.3
7. New Air Combat Capability (AIR 6000 Ph 2A/2B)	Joint Strike Fighter	
8. Armed Reconnaissance Helicopter (AIR 87 Ph 2)	ARH Helicopters	2,031.5
9. F/A-18 Hornet Upgrade (AIR 5376 Ph 2)	Hornet Upgrade	1,878.6
10. Air to Air Refuelling Capability (AIR 5402)	Air to Air Refuel	1,802.6
11. Guided Missile Frigate Upgrade Implementation (SEA 1390 Ph 2.1)	FFG Upgrade	1,450.1
12. Bushmaster Protected Mobility Vehicle (LAND 116 Ph 3)	Bushmaster Vehicles	1,254.3
13. Field Vehicles and Trailers (LAND 121 Ph 3A)	Overlander Vehicles	990.5
14. Next Generation SATCOM Capability (JP 2008 Ph 4)	Next Gen Satellite	863.7
15. ANZAC Anti-Ship Missile Defence (SEA 1448 Ph 2B)	ANZAC ASMD 2B	675.9
16. High Frequency Modernisation (JP 2043 Ph 3A)	HF Modernisation	580.1
17. Additional Medium Lift Helicopters (AIR 9000 Ph 5C)	Additional Chinook	564.0

6 Major Projects Report 2011-12, pp.151-152.

18. Armidale Class Patrol Boat (SEA 1444 Ph 1)	Armidales	537.2
19. Collins Replacement and Combat System (SEA 1439 Ph 4A)	Collins RCS	449.9
20. Battlespace Communications System (JP 2072 Ph 2A)	Battle Comm. Sys. (Land)	441.2
21. Indian Ocean Region UHF SATCOM (JP 2008 Ph 5A)	UHF SATCOM	432.5
22. Replacement Heavyweight Torpedo (SEA 1429 Ph 2)	Hw Torpedo	425.1
23. Collins Class Reliability and Sustainability (SEA 1439 Ph 3)	Collins R&S	411.4
24. SM-1 Missile Replacement (SEA 1448 Ph 2A)	SM-2 Missile	400.2
25. ANZAC Anti-Ship Missile Defence (SEA 1448 Ph 2A)	ANZAC ASMD 2A	386.5
26. Artillery Replacement (LAND 17 Ph 1A)	155m Howitzer	323.9
27. Follow On Stand Off Weapon (AIR 5418 Ph 1)	Stand Off Weapon	317.4
28. Battlefield Command Support System (LAND 75 Ph 3.4)	Battle Comm. Sys.	308.0
29. Counter – Rocket, Artillery and Mortar (LAND 19 Ph 7A)	C-RAM	253.9
TOTAL		44,325.0

Source 2012-13 Major Projects Report, Table 1, p.15

2.5 In 2012-13, the C-17 Globemaster III Heavy Airlifter (AIR 8000 Ph 3) project was exited from the MPR and the Battlespace Communications System (JP 2072 Ph 2A) was entered into the MPR.

ANAO's review

2.6 The ANAO conducts an assurance audit of the data and information supplied by DMO in the PDSSs.⁷ An assurance audit is more limited than a performance audit. However, ANAO may separately undertake performance audits of some projects individually or capability generally.⁸

2.7 During its review of the 2010-11 MPR, the Committee identified the MPR as a priority assurance review under s.19A(5) of the *Auditor-General Act 1997*. This designation has allowed the ANAO full access to the information gathering powers available under the Act, without necessitating the agreement of the DMO to perform the review.⁹

2.8 After reviewing PDSS information and data, the Auditor-General concluded:

Based on my review described in this report, nothing has come to my attention that causes me to believe that the information in the

⁷ The audit process is outlined on pp.30-31 of the *Major Projects Report 2012-13*.

⁸ See, for example, Audit Report No.6 (2013-14) *Capability Development Reform* and Audit Report No.22 (2013-14) *Air Warfare Destroyer Program*.

⁹ *Major Projects Report 2011-12*, p.17; JCPAA, *Report 429*, p.33.

PDSSs within the scope of my review has not been prepared, in all material respects, in accordance with the Guidelines.¹⁰

- 2.9 Projects' progress towards meeting capability performance is "outside the scope of the Auditor-General's formal review conclusion", but is included in ANAO's review and analysis in Part 1 of the MPR.¹¹
- 2.10 Whilst published as Audit Report No.12 (2013-14), the MPR is a joint publication of the ANAO and DMO. The CEO of DMO has responsibility for presentation of the PDSSs for the 29 Major Projects reviewed. The MPR includes the following statement from the CEO:
- In my opinion, the Project Data Summary Sheets comply in all material respects with the Guidelines and reflect the status of the projects as at 30 June 2013.¹²
- 2.11 In 2012-13, the ANAO identified the following "key focus areas" for the purpose of its review and analysis of the MPR:
- The financial assurance framework, particularly project financial assurance statements and out-turned budgeting;
 - Project maturity framework and reporting;
 - Enterprise risk management framework and projects' major risk and issue data;
 - Capability assessment framework and DMO's capability forecasts; and
 - Efficiency of the MPR audit process, which remains largely manual.¹³
- 2.12 Whereas other audit reports may contain recommendations, ANAO does not include recommendations in the MPR.

Summary of ANAO findings

- 2.13 The MPR reviews performance against the selected 29 Major Projects. Overall project performance is measured against three criteria:
- Actual cost;
 - Schedule; and
 - Progress towards expected capability delivery (or materiel systems delivery).
- 2.14 Each of these is measured against the budget, schedule and project scope as approved by government.¹⁴ The table below summarises the headline

10 *Major Projects Report 2012-13*, p.141.

11 *Major Projects Report 2012-13*, p.26.

12 *Major Projects Report 2012-13*, p.143.

13 *Major Projects Report 2012-13*, pp.31-32.

14 *Major Projects Report 2012-13*, p.21 and p.113.

findings in the 2012-13 MPR, with comparisons to previous years. The shaded section in the table below was outside the scope of ANAO's assurance audit.

Table 2.2 Summary of longitudinal analysis

	2010-11 MPR	2011-12 MPR	2012-13 MPR
Number of Projects	28	29	29
Total Approved Budget	\$46.1 billion	\$47.3 billion	\$44.3 billion
Total Increase/Decrease since Second Pass Approval	\$7.8 billion	\$5.9 billion	\$6.5 billion ¹⁵
Approved Budget Increase/Decrease (In year)	-\$0.1 billion (-0.3 per cent)	-\$1.1 billion (-2.4per cent)	-\$1.5 billion (-3.4per cent)
Schedule Slippage (Total)¹⁶	760 months (31 per cent)	822 months (30 per cent)	957 months (36 months)
Average Schedule Slippage per Project	30 months	30 months	35 months
Schedule Slippage (in-year)	72 months (3 per cent)	99 months (4 per cent)	147 months (5 per cent)
Expected Capability Delivery			
High level of confidence that capability will be delivered	94 per cent	91 per cent	95 per cent
Capability under threat, considered manageable	5 per cent	8 per cent	5 per cent
Capability unlikely to be met	1 per cent	1 per cent	0 per cent

Source Major Projects Report 2012-13 p.23

15 Adjusted for the Overlander Vehicles project, which was restructured in 2012-13; see ANAO explanation in the *Major Projects Report 2012-13*, p.24.

16 Months of slippage when compared to the initial prediction when first approved by government and percentage increase since the main investment decision. A comparison of the data across years should be interpreted in this context, i.e. once a project is removed from the MPR, data is removed from the total slippage calculation for all years, but remains within in-year calculations where relevant. *Major Projects Report 2012-13*, p.23, note 2; see also p.65

Cost performance

- 2.15 According to ANAO, “Within the review period, all projects continued to operate within the total approved budget of \$44.3 billion.” At 30 June 2013, this represented a \$3.8 billion net increase from Second Pass Approval approved budget of \$40.5 billion. This adjustment was attributable to price variation (increase of \$6.7 billion) foreign currency exchange rate movement (decrease of \$3.8 billion) and real variation (increase of \$0.9 billion). Actual expenditure across all 29 projects in 2012-13 was \$2.4 billion.¹⁷

Schedule performance

- 2.16 Total schedule slippage (projects behind deadline) at 30 June 2013 is 957 months (a 36% increase) compared to the original schedule first approved by government. ANAO commented that:

Maintaining Major Projects on schedule remains the most significant challenge for the DMO... affecting when the capability is made available for operational release and deployment by the ADF.¹⁸

- 2.17 DMO agreed that schedule remains an issue:

The DMO’s analysis shows that while projects have been managed within approved budgets, schedule performance, as identified in previous MPRs, continues to be the key issue for DMO and Defence.¹⁹

- 2.18 According to the ANAO, “the reasons for schedule slippage vary” but are primarily caused by “the underestimation of both the scope and complexity of work, particularly for Australianised MOTS [military off-the-shelf] and Developmental projects.”²⁰ ANAO noted that most schedule slippage is attributable to projects approved pre-2005, which predated DMO’s demerger from Defence and tended to be developmental in nature.²¹

Capability performance

- 2.19 Capability is reported using a traffic light system, where Green represents capabilities expected to be met, Amber capabilities under threat and Red capability unlikely to be achieved. According to DMO:
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17 *Major Projects Report 2012-13*, p.24, p.52, p.54 and p.58.

18 *Major Projects Report 2012-13*, p.25.

19 *Major Projects Report 2012-13*, p.113.

20 *Major Projects Report 2012-13*, p.26.

21 *Major Projects Report 2012-13*, p.25.

For the 2012-13 DMO MPR, there are 281 individual Materiel Capability elements across the 29 projects with 269 green, 12 amber and no red. ... A high percentage (96 per cent) of Materiel Capability Performance measures are reported as green.²²

- 2.20 Delivery of key capabilities is not auditable as this relates to future events. ANAO cautions that "...the conclusion of this review does not provide any assurance in relation to this information."²³

Governance and business processes

- 2.21 While ANAO's review and analysis extends to DMO's governance and business systems, this is not mandated by the MPR Guidelines. Nonetheless, the data and information collected to compile and audit the PDSSs relies upon easy access and retrieval from systems established at project management level. ANAO highlighted a multitude of developments and issues, which included:
- Business system weaknesses, such as project offices having inconsistent recordkeeping and methods of tracking project progress;²⁴
 - Varying project management skills among DMO and Defence staff;²⁵
 - Risks and issues that may affect forecasts not necessarily being reported or regularly reviewed;²⁶ and
 - DMO having disabled some of its system for reporting project risks.²⁷

22 *Major Projects Report 2012-13*, pp.134-135.

23 *Major Projects Report 2012-13*, p.34.

24 *Major Projects Report 2012-13*, p.88.

25 *Major Projects Report 2012-13*, p.91.

26 *Major Projects Report 2012-13*, p.41.

27 *Major Projects Report 2012-13*, p.41.