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The Parliament of the Commonwealth of Australia

# Report 416

## **Review of the Major Projects Report 2007-2008**

Joint Committee of Public Accounts and Audit

November 2009  
Canberra

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## Foreword

The Committee's purpose in recommending funding for the annual Major Projects Report (MPR) was to provide a means by which accessible, transparent and accurate information could be made available to the Parliament and the Australian public about the state of Defence's major acquisition projects. After reviewing the inaugural *Major Projects Report 2007-08* the Committee is encouraged by what has been achieved so far, and in no doubt about the utility of future MPRs.

Developing and maintaining a reporting system such as the MPR is an evolving process and the *Major Projects Report 2007-08*, which provides information on the cost, schedule and capability progress of nine major acquisition projects, was a pilot. The Committee is aware that setting up the systems that underpin the annual publication of the MPR in a context where major projects are complex and diverse in nature has resulted in challenges for both the Australian National Audit Office (ANAO) and the Defence Materiel Organisation (DMO). In its review of this report, the Committee provides guidance and direction to both the ANAO and the DMO and outlines some of the ways the MPR can be improved. These improvements include: documenting lessons learned and project maturity scores more comprehensively; reporting further on capability performance data; and formal Committee approval of project selection. The Committee also makes plain its intention to carefully monitor the issues that gave rise to the scope reduction and the qualification contained in this report.

The development of the Major Projects Report was a significant and timely step forward. This review reflects the commitment made by the Committee to continuously monitor Defence's acquisition processes and outcomes and to provide input and guidance where necessary.

On behalf of the Committee, I would like to thank the Auditor-General, Mr Ian McPhee PSM and his staff and Dr Stephen Gumley, Chief Executive Officer of the DMO and his staff for the cooperative manner in which they have worked to produce the MPR 2007-08. We look forward to seeing the MPR evolve over time into a comprehensive, high-quality, reliable document which is of great use both within and without the Department of Defence. Ultimately the report should provide the Australian public with confidence that Defence procurement dollars are being spent wisely to provide our highly-valued Australian Defence Force personnel with the quality support they deserve.

Sharon Grierson MP  
Chair



## Membership of the Committee

Chair	Ms Sharon Grierson MP	
Deputy Chair	Hon Petro Georgiou MP	
Members	Hon Dick Adams MP (from 17/08/09)	Senator Guy Barnett (from 11/02/09)
	Hon Bob Baldwin MP (until 25/09/08)	Senator Mark Bishop
	Hon Arch Bevis MP	Senator Sue Boyce (until 11/01/09)
	Hon Bronwyn Bishop MP (from 25/09/08)	Senator David Bushby
	Mr David Bradbury MP	Senator David Feeney
	Mr Jamie Briggs MP (from 25/09/08)	Senator Kate Lundy
	Mr Mark Butler MP (until 15/06/09)	
	Ms Catherine King MP	
	Mr Scott Morrison MP (until 25/09/08)	
	Mr Shayne Neumann MP	
Mr Stuart Robert MP		

## Committee Secretariat

Secretary                      Mr Russell Chafer

Inquiry Secretary            Dr Kris Veenstra





## List of abbreviations

ANAO	Australian National Audit Office
AUC	Assets Under Construction
DMO	Defence Materiel Organisation
EVMS	Earned Value Management System
JCPAA	Joint Committee of Public Accounts and Audit
MOE	Measures of Effectiveness
MPR	Major Projects Report
PDSS	Project Data Summary Sheets
UK NAO	United Kingdom National Audit Office
ANAO	Australian National Audit Office



# List of recommendations

## Recommendation 1

That all Major Projects Reports from the year 2009-10 onwards contain a section that clearly outlines the lessons learned on MPR projects which are systemic and interrelated in nature. This section must include plans for how the lesson learned will be incorporated into future policy and practice. This section is in addition to Section 5 in the PDSSs (i.e., 'Lessons Learned') which should still contain descriptions of lessons learned that are unique to the individual projects and how they will be incorporated into future policy and practice across the DMO. Section 5 of the PDSSs should also include cross-referencing to the systemic issues where relevant to individual projects.

## Recommendation 2

That all Major Projects Reports from the year 2009-10 onward provide a breakdown of maturity scores against the following seven attributes in project data: Schedule; Cost; Requirement; Technical understanding; Technical difficulty; Commercial; Operations and support. Additionally, all Major Projects Reports from the year 2009-10 onward provide a succinct and straightforward explanation of how the DMO determines the benchmark, as opposed to the maximum, maturity score.

## Recommendation 3

That the Defence Materiel Organisation provide a traffic light analysis of the percentage breakdown of Capability Measures of Effectiveness for each project. This traffic light analysis should be included in each MPR from 2009-10 onward until such time as the DMO is able to replace this analysis with unclassified and standardised capability achievement information.

**Recommendation 4**

That no later than 31 August each year, the ANAO and the DMO will consult the Committee on the projects to be included in and, where appropriate, excluded from, the following year's MPR.

**Recommendation 5**

That where possible the order of presentation of the projects will remain consistent across the Major Projects Report.



## Introduction

### Background

- 1.1 In December 2006, the Joint Committee of Public Accounts and Audit (JCPAA) unanimously agreed to recommend that the Australian National Audit Office (ANAO) receive additional funding to produce an annual report on progress in major defence projects. A similar recommendation had been made by the Senate Foreign Affairs, Defence and Trade References Committee in 2003.<sup>1</sup> The Government approved funding for the report in the May 2008 budget.
- 1.2 In August 2008, following an inquiry into financial management and materiel acquisition at the Department of Defence and the Defence Materiel Organisation (DMO), the JCPAA published *Report 411: Progress on equipment acquisition and financial reporting in Defence*. Chapter five of that report provided a broad outline of the key features that were to be included in the Major Projects Report (MPR).
- 1.3 The aim of the MPR is to provide the Parliament and the Australian public with accessible, transparent and accurate information about the state of Defence's major acquisition projects while these projects are still in train.
- 1.4 The report is modelled on the Ministry of Defence and the United Kingdom National Audit Office (UK NAO) Major Projects Report.

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1 Senate Foreign Affairs, Defence and Trade References Committee, *Materiel acquisition and management in Defence* (2003).

- 1.5 On 27 November 2008, the Auditor-General tabled the first Major Projects Report for the year 2007-08. The report is comprised of a series of DMO Project Data Summary Sheets (PDSS), an overview by the DMO and a review undertaken by the Auditor-General. The MPR 2007-08 was based on a pilot of nine projects.
- 1.6 In accordance with its statutory obligations to examine all reports of the Auditor-General that are tabled in each House of Parliament, the Committee reviewed the MPR 2007-08. This report presents the findings of that examination.

## **Scope and conduct of the review**

- 1.7 The Committee held a public hearing in Canberra on 19 March 2009. The primary purpose of that hearing was for the Committee to be formally briefed about issues that had been identified by the ANAO and the DMO during the development of the pilot MPR, and to provide feedback to those agencies on the Parliament's requirements for future MPRs.
- 1.8 In addition to the oral evidence taken at the hearing on 19 March 2009 the review received four submissions and three exhibits.
- 1.9 On 19 August 2009, the Committee held a further public hearing. The main purpose of that hearing was for the Committee to follow up on the findings reported in *Report 411: Progress on equipment acquisition and financial reporting in Defence*. Information related to progress on the MPR was also provided to the Committee at that hearing.
- 1.10 This report is based on the oral evidence provided at the hearings on 19 March and 19 August 2009 and the information provided in the submissions and exhibits.

## Major Projects Report 2007-08

### Overview

- 2.1 The Major Projects Report 2007-08 is the pilot of an annual reporting program that covers the cost, schedule and capability progress achieved by nine selected DMO projects as at 30 June 2008. The MPR includes a formal review by the Auditor-General on the information presented in the DMO Project Data Summary Sheets (PDSSs).
- 2.2 The PDSSs are prepared by the DMO and have been designed to provide a snapshot of key performance data for each of the projects included in the MPR. The PDSSs currently provide data covering the following areas:
- Project summary;
  - Financial performance;
  - Schedule progress;
  - Risks, issues and linked projects;
  - Lessons learned; and
  - Addendum (see 2.3 below).
- 2.3 The Project Data Summary Sheet Guidelines (prepared by the DMO in consultation with the ANAO) required that each PDSS in the MPR 2007-08 contain materially accurate and complete unclassified cost, schedule and capability performance data as at 30 June 2008 together with an

addendum that describes material events occurring between 30 June 2008 and 31 October 2008.<sup>1</sup>

- 2.4 The work conducted by the ANAO on the MPR 2007-08 was undertaken in accordance with Section 20 (Audits etc. by arrangement) of the *Auditor-General Act 1997*. More specifically, the ANAO reviewed the PDSSs in accordance with the Standard on Assurance Engagements ASAE 3000 *Assurance Engagements Other than Audits or Reviews of Historical Financial Information*.<sup>2</sup> The ANAO review included:
- examining each PDSS;
  - reviewing the relevant procedures used by the DMO to prepare the PDSSs;
  - reviewing documents and information relevant to the PDSSs;
  - interviewing those responsible for preparing the PDSSs and managing the nine projects; and
  - examining the certification and management representations by the DMO Chief Executive, sign-offs by DMO managers, and management representations from the Capability Managers relating to Initial Operational Capability and Final Operational Capability.<sup>3</sup>
- 2.5 It should be noted that the nature and scope of the project issues covered and the evidence obtained by the ANAO is not as extensive as the ANAO's individual performance audits. The level of assurance provided therefore, is less than that provided by the ANAO's performance audits.<sup>4</sup>
- 2.6 Although the review of the MPR 2007-08 provided the required level of assurance in relation to the majority of the information contained in the PDSSs, two areas were highlighted in the Auditor-General's review report.<sup>5</sup>
- 2.7 First, sections in the PDSS concerning major risks and issues and references to future events were scoped out of the review (see 2.12 for further explanation). The ANAO's review conclusion does not therefore cover major risks and issues included by the DMO in Tables 1.2 (Project Context), 4.1 (Major Project Risks) and 4.2 (Major Project Issues) of the

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1 *Defence Materiel Organisation Major Projects Report 2007-08*, p 95.

2 Auditing and Assurance Standards Board, *Standard on Assurance Engagements ASAE 3000 Assurance Engagements Other than Audits or Reviews of Historical Financial Information*, July 2007.

3 Australian National Audit Office, sub 1, p 6.

4 Australian National Audit Office, sub 1, p 5.

5 Australian National Audit Office, sub 1, p 6.



PDSS, and forecasts of a project's expected achievement of delivery schedule and capability that are included in Sections 3 and 4 of each PDSS.<sup>6</sup>

2.8 Second, the ANAO review conclusion was qualified. This qualification was related to uncertainty around the accuracy of the information contained in Table 2.7 of the PDSSs, prime contract expenditure at base date price. The qualification is attributed to the DMO's corporate information systems. As outlined in the MPR, the DMO relies on a number of systems to compile information to populate the PDSSs, however, these systems are not well integrated, particularly in relation to older projects. DMO project personnel instead used spreadsheet-based systems and the accuracy of that information was not able to be substantiated during the review.<sup>7</sup>

2.9 The MPR 2008-09 will report on the following 15 projects:<sup>8</sup>

- Air Warfare Destroyers - SEA 4000 Phase 3;
- Airborne Early Warning and Control Aircraft - AIR 5077 Phase 3;
- Multi-Role Helicopters - AIR 9000 Phase 2;
- Super Hornet Aircraft - AIR 5349 Phase 1;
- Amphibious Ships - JP 2048 Phase 4A/4B;
- Armed Reconnaissance Helicopters - AIR 87 Phase 2;
- Air to Air Refuelling Aircraft - AIR 5402;
- F/A-18 Hornet Upgrade - AIR 5376 Phase 2;
- C-17 Heavy Lift Aircraft - AIR 8000 Phase 3;
- FFG Frigate Upgrade - SEA 1390 Phase 2;
- F/A-18 Hornet Structural Refurbishment - AIR 5376 Phase 3.2;
- Bushmaster Vehicles - LAND 116 Phase 3;
- High Frequency Modernisation - JP 2043 Phase 3A;
- Armidale Patrol Boats - SEA 1444 Phase 1; and
- Collins Submarine Replacement Combat System - SEA 1439 Phase 4A

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6 *Defence Materiel Organisation Major Projects Report 2007-08*, p 16-17.

7 *Defence Materiel Organisation Major Projects Report 2007-08*, p 17.

8 Australian National Audit Office, sub 1, p 15.

- 2.10 On the basis of evidence provided to the Committee at the public hearings on 19 March and 19 August 2009 as well as the submissions received, this report contains Committee comments on the MPR 2007-08. These comments address the scope reduction and the qualification as well as potential improvements to the PDSSs and the MPR overall.

## **Scope reduction and qualification**

- 2.11 As outlined above, the ANAO's review highlighted two key issues: the scope reduction related to major risks and issues; and the qualification as a result of uncertainty around the figures reflecting prime contract expenditure. The Committee was interested in what could be done to address these issues in the future.
- 2.12 In its first submission, the ANAO provided the following explanation for the scope reduction:

For much of 2007-08, the DMO and ANAO were piloting the development of the project data collection and assurance review policies and processes, and as late as October 2008 DMO was making significant changes to the major risks and issues information presented in the PDSSs. The limited time available before the report's tabling in late November 2008 reduced the ANAO's ability to assess the method used by DMO to compile the risks and issues presented in each PDSS. As a result, this information was scoped-out of the Auditor-General's review.<sup>9</sup>

- 2.13 At the hearing on 19 March 2009, the Committee sought the Auditor-General, Mr Ian McPhee's, comments on how future scope reductions related to major risks and issues could be avoided:

It is often a function of resources. I guess I am very conscious [of the fact that when] we do performance audits, being the more in-depth audits that we do, we get to understand more about the risks. In fact, we are doing a couple of audits at the moment and you need quite a detailed understanding to get comfort around the risks to the delivery on projects. At this stage, I have not been comfortable to tell the committee that these risks are the ones that have been fully identified for all of these DMO projects reported. That is not to say that DMO is not highlighting risks and reporting them to the best of their ability; I am just saying that it would take

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9 Australian National Audit Office, sub 1, p 6.

a lot more time for us to get into the project detail to be able to say to you, 'Yes, this is the complete list of risks.' It is a function of resources, but a function also of how DMO compile their risks.<sup>10</sup>

- 2.14 In responding to a query about whether the DMO has sufficient systems in place to make sure that it would be able to provide a complete list of risks, Dr Gumley, CEO of the DMO, made the following acknowledgement:

We do not have systems consistently right through the DMO. It is much more on a project-by-project basis.<sup>11</sup>

- 2.15 The Committee is keen to ensure that the scope of the review is not reduced in future MPRs. To that end, the Committee encourages the DMO, in collaboration with the ANAO, to develop a consistent framework for compiling a complete list of major risks and issues across projects thereby maximising the ANAO's ability to assess the information appropriately.<sup>12</sup>

- 2.16 The Committee also welcomes the undertaking given by the DMO at the hearing on 19 August that, at the Committee's request, additional information will be incorporated into 'Section 4 – Risks, Issues and Linked Projects' from the MPR 2009-10 onwards. This information will identify whether the risks and issues listed in Section 4 had been *anticipated* or whether they had *emerged* over the course of the project.<sup>13</sup>

- 2.17 With regard to the qualification, at the hearing on 19 March, DMO representatives acknowledged that more work needed to be done:

There is an improvement for us of the quality of the historical financial data. There are issues in the qualification in respect to the quality of specific instances of price and exchange variations sometimes going back into the early 90s. What we have to do is look at the actual materiality of those issues as to whether there is value for the Commonwealth and us in going back and retrieving historical data, with some going back 10-plus years.<sup>14</sup>

- 2.18 The Auditor-General also made the following comment:

I think the one thing that we are conscious of is that some of the systems within DMO are probably not at the same level of maturity across the organisation and they do have an impact on

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10 Mr Ian McPhee PSM, transcript, 19 March 2009, p 4.

11 Dr Stephen Gumley, transcript, 19 March 2009, p 4.

12 See Australian National Audit Office, sub 1, p 7.

13 Dr Stephen Gumley, transcript, 19 August 2009, p 17.

14 Mr Kim Gillis, transcript, 19 March 2009, p 3.

the compilation of reporting information, particularly in the area of the costing information which we highlighted in our report. We will keep an eye on that and clearly if we think it is not up to scratch we will continue to qualify. Equally, I am conscious that DMO has got plans afoot to try to improve the quality of information systems and information as well.<sup>15</sup>

- 2.19 As referred to in paragraph 2.8 above, data collection of the type now required for Table 2.7 of PDSSs ('Prime Acquisition Contract(s) Price and Progress Payments') poses challenges. This is because data originally collected relating to older projects has since been transferred to another system and in that process has lost some of the original detail.<sup>16</sup> Additionally, as there has been no requirement for this type of information in the past, the provision of electronic historical data is an extremely resource intensive exercise.<sup>17</sup>
- 2.20 In a letter to the Committee dated 29 June 2009 (Exhibit 1), the DMO proposed an amendment to the PDSSs which would see the prime contract base date financial data being replaced by Assets Under Construction (AUC) data. This correspondence sets out that AUC data would provide capitalised expenses, including expenses incurred in relation to the contract price, and all other costs directly attributable to bringing an asset to a condition ready for use.<sup>18</sup> The DMO letter dated 29 June also provides the DMO rationale for moving to AUC data, an explanation of the data together with an example of how the data would be presented in the MPR, and a summary table comparing base date contract expenditure information with capitalised expenses information.
- 2.21 To assist the Committee in its consideration of the DMO's request, the ANAO also provided a list of positive and negative implications for the MPR compilation task and subsequent assurance reviews should base date financial data be replaced with AUC data.<sup>19</sup>
- 2.22 Having considered the advantages and disadvantages outlined by both the DMO and the ANAO of replacing base date financial data with AUC data in Table 2.7 of the PDSSs, the Committee is satisfied that the provision of AUC data is a suitable approach for the DMO to take.

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15 Mr Ian McPhee PSM, transcript, 19 March 2009, p 4.

16 Mr Kim Gillis, transcript, 19 March 2009, p 8.

17 Mr Kim Gillis, transcript, 19 March 2009, pp 8-9.

18 See Defence Materiel Organisation, exhibit 1, p 1.

19 See Australian National Audit Office, exhibit 2, attachment A.

- 2.23 That said, the Committee intends to monitor the effectiveness of this approach and any implications for other reporting mechanisms such as the provision of Earned Value Management System (EVMS) data.<sup>20</sup>
- 2.24 In addition to shifting to AUC data in Table 2.7 of the PDSSs, the Committee welcomes the undertaking provided by Dr Gumley on 19 August 2009 that the DMO will provide an additional breakdown of the project costs in Section 2 of the PDSSs.<sup>21</sup> That is, within all of the major projects reported in the MPR, the DMO will provide costs data for the largest five contracts within that project from project inception as well as the costs incurred by the DMO and Defence.
- 2.25 At the hearing on 19 March 2009, the Committee inquired as to whether ANAO assurance could be provided on a project-by-project basis. In response, the Auditor-General provided the following comment:
- We could have a look. We could break it down to particular projects if we were comfortable to say that seven of the 15 legacy projects have issues with systems and therefore we cannot provide assurance around the cost information in relation to those. We could, over time. I agree with what Mr Gillis is saying, we need to see how significant these matters are. We have a bit more time in this current year. We need to see how significant they are and, if we can, we will certainly narrow down any qualification that still exists to be more specific, and one would expect, on the basis of advice, that it would relate to the older projects.<sup>22</sup>
- 2.26 The Committee will follow up this matter in the future.
- 2.27 Overall, the Committee notes that both the DMO and ANAO are working hard to address the review scope limitations and the qualified conclusion associated with the MPR 2007-08. The Committee will closely monitor progress in this respect.

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20 See Australian National Audit Office, exhibit 2, attachment A, p 2.

21 Dr Stephen Gumley, transcript, 19 August 2009, p 5.

22 Mr Ian McPhee PSM, transcript, 19 March 2009, p 10.

## Improvements to PDSSs

### Lessons learned

- 2.28 In its inquiry into progress on equipment acquisition and financial reporting in Defence, the Committee found that procedures and processes for documenting lessons learned on all major projects were patchy and inconsistent.<sup>23</sup> In reviewing the MPR 2007-08, the Committee was therefore pleased to see that a section covering 'Key Lessons Learned' has been included in Section 5 of the PDSSs.
- 2.29 That said, the Committee believes that more can be done to assure the Parliament and the public that the DMO has incorporated any lessons that have been learned into its project management systems and policy and practice.
- 2.30 At the hearing on 19 March 2009, in response to questioning about this issue, Mr Kim Gillis, General Manager Systems at the DMO referred to the commonality of the lessons across the projects:
- In the nature of the types of projects that we are talking about, these large complex systems integrations, which is where we are with these major projects, they all have the same issues.<sup>24</sup>
- 2.31 The Committee also notes from evidence given by the representatives of the DMO that in response to lessons learned on systems integration, a systems integration cell has been established to address systems integration issues, a program of gate reviews has been initiated whereby projects are reviewed by two general managers, and discussions are taking place with industry about how their internal practice of systems integration can be improved.<sup>25</sup>
- 2.32 Given the systemic and interrelated nature of many of the lessons learned, representatives of the DMO have suggested that, rather than addressing the same lessons learned individually for each MPR project, they could be addressed collectively. That is, the MPR would include a section outlining the systemic issues and interrelated issues at the front of the PDSSs, with lessons specific to individual projects to be included in the relevant project PDSS.

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23 Joint Committee of Public Accounts and Audit, *Report 411: Progress on equipment acquisition and financial reporting in Defence* (2008), p xvii.

24 Mr Kim Gillis, transcript, 19 March 2009, p 11.

25 See transcript, 19 March 2009, p 11 and p 13.

- 2.33 While the Committee is broadly satisfied with this approach, the section addressing the systemic issues at the front of the PDSSs must incorporate clear plans as to how the lessons learned have been or will be incorporated into future policy and practice.
- 2.34 Additionally, the Committee requires that where systemic issues have arisen in individual projects, a cross-reference to the combined section addressing systemic issues should be included in Section 5 of the relevant individual PDSS. Where lessons learned are unique to individual projects, these should continue to be reported in Section 5 of the PDSSs.

### Recommendation 1

- 2.35 **That all Major Projects Reports from the year 2009-10 onwards contain a section that clearly outlines the lessons learned on MPR projects which are systemic and interrelated in nature. This section must include plans for how the lesson learned will be incorporated into future policy and practice. This section is in addition to Section 5 in the PDSSs (i.e., 'Lessons Learned') which should still contain descriptions of lessons learned that are unique to the individual projects and how they will be incorporated into future policy and practice across the DMO. Section 5 of the PDSSs should also include cross-referencing to the systemic issues where relevant to individual projects.**

### Project maturity scores

- 2.36 Assigning maturity scores to projects is a way of benchmarking. A maturity score is a quantitative measure that reflects a project's stage of development compared to expected benchmarks.<sup>26</sup> A project maturity score is based on an assessment of seven attributes that are rated on a scale between one and ten. These attributes are: Schedule; Cost; Requirement; Technical understanding; Technical difficulty; Commercial; and Operations and support.<sup>27</sup>
- 2.37 The draft template of the MPR that the Committee considered in September 2007 contained a section reporting 'Project Maturity Scores and Benchmarks'. It was anticipated that a score for each attribute contributing to the final maturity score would be reflected in the MPR

26 *Defence Materiel Organisation Major Projects Report 2007-08*, p 84.

27 See *Defence Materiel Organisation Major Projects Report 2007-08*, p 45 for an explanation of these attributes.

2007-08 as it had been in the draft template of the PDSSs provided to the Committee in September 2007. The MPR 2007-08, however, contains only the aggregated maturity score.

- 2.38 The Committee sought clarification about this omission at the hearing on 19 March 2009. At that hearing<sup>28</sup> and again in its response to questions on notice<sup>29</sup> the DMO agreed to provide a breakdown of the maturity scores against the seven attributes for the 2008-09 MPR.
- 2.39 The Committee welcomes this development and wants to ensure that all future MPRs will contain this information.
- 2.40 At the hearing on 19 March 2009, the Committee also expressed some concern that the MPR provided no explanation of how the benchmark maturity score, as opposed to the maximum score, is determined. The Committee believes such an explanation would improve readability and comprehension and therefore should be included in future MPRs.

## **Recommendation 2**

- 2.41 **That all Major Projects Reports from the year 2009-10 onward provide a breakdown of maturity scores against the following seven attributes in project data: Schedule; Cost; Requirement; Technical understanding; Technical difficulty; Commercial; Operations and support. Additionally, all Major Projects Reports from the year 2009-10 onward provide a succinct and straightforward explanation of how the DMO determines the benchmark, as opposed to the maximum, maturity score.**

## **Reporting cost and schedule variance**

- 2.42 The Earned Value Management System (EVMS), where progress is measured against the schedule terms on a monthly basis, is a key mechanism for checking cost and schedule progress. The Committee was keen therefore that EVMS data, where available, would be included in the MPR.
- 2.43 In its questions placed on notice, the Committee inquired about the possibility of including this information in the PDSSs. In particular, the Committee asked the DMO and the ANAO to indicate whether the MPR could include a graphical representation of cumulative monthly project

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28 Mr Kim Gillis, transcript, 19 March 2009, p 15.

29 Defence Material Organisation, sub 3, p 6.



cost and schedule variance so as to provide the Parliament with a clear picture of where problems may or may not be occurring.

- 2.44 In response to this question, the DMO expressed some concern about creating inconsistency across the PDSSs given that not all projects have EVM requirements:

... only selected high value DMO contracts invoke [EVM systems] requirements. Therefore, we are unable to provide EVM data for those projects with contracts arrangements that do not have EVM requirements; Foreign Military Sales (FMS) procurements also fall into this category. Noting that the objective behind the MPR is to have a standardised set of data across all MPR projects...presenting EVM data for selected projects would not meet this objective.<sup>30</sup>

- 2.45 While the Committee notes the DMO's concern, it also notes the following evidence from the ANAO about the advantages of including information on EVMS in the PDSSs:

The ANAO agrees that there are benefits from including the Earned Value Management System (EVMS) data in the PDSS, in instances where that data is available in particular projects, as EVMSs provide an indication of a project's cost and schedule variance and emerging trends.<sup>31</sup>

- 2.46 The Committee fully appreciates that consistency across the PDSSs is the ideal, however, the Committee wants to ensure that consistency is not achieved at the expense of accountability and transparency.
- 2.47 For that reason the Committee urges the DMO and the ANAO to discuss this matter further with a view to developing a standardised graphical representation of each project's cost and schedule variance that can be included in the PDSSs. The Committee will follow up the outcome of these discussions.

## Contingency budget funds

- 2.48 The Committee questioned the ANAO and the DMO on the possibility of including information, where possible, about contingency budget funds in the PDSSs, particularly as this type of information had been included in the draft PDSS template considered by the Committee in September 2007.

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30 Defence Materiel Organisation, sub 3, p 7.

31 Australian National Audit Office, sub 2, p 4.

- 2.49 The Committee notes and appreciates from the DMO's responses to questions on notice<sup>32</sup> that while the ANAO is provided with complete access to the contingency logs of projects, the DMO does not declare the remaining contingency budgets of projects for security reasons.
- 2.50 The Committee notes, however, that the MPR 2007-08 did contain some high level information about contingency funds.<sup>33</sup> The Committee therefore welcomes the ANAO's offer to discuss with the DMO opportunities to provide higher level disclosures in the MPR that will not compromise security and the Committee will follow up the outcome of those discussions.<sup>34</sup>

### Capability performance data

- 2.51 The Committee is impressed with the clear information the United Kingdom National Audit Office (UK NAO) and Ministry of Defence Major Projects Report provides on capability. That is, whether Key User Requirements (i.e., those that are considered to be key to the achievement of the mission and are used to measure project performance<sup>35</sup>) are forecast to be met, are at risk or will not be met in individual projects.<sup>36</sup> Capability measures in the Australian MPR 2007-08 are reported as measures of effectiveness (MOE). These measures reflect key capability performance attributes of a project which, if not satisfied, would have a significant effect on the eventual suitability for operational service.<sup>37</sup>
- 2.52 Individual MOEs for projects were not reported in the MPR 2007-08 for security classification reasons. Instead, a chart reflecting aggregated information for the nine projects under review was included in the report. This chart presented a traffic light analysis of the consolidated MOEs. Percentage figures were provided for the following: MOEs that were unlikely to be met (Red light); MOEs under threat but still considered manageable (Amber light); and MOEs in which there is a high level of confidence they will be met (Green light).
- 2.53 The Committee notes from evidence given at the hearing on 19 March 2009 and from the submissions that there is some consensus

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32 Defence Materiel Organisation, sub 3, p 8.

33 This information is related to Airborne Early Warning & Control Aircraft, see *Major Projects Report 2007-08*, p 71.

34 Australian National Audit Office, sub 2, p 4.

35 UK NAO Ministry of Defence Major Projects Report 2008, p 31.

36 See, for example, Section 4: Key User Requirements of Post Main Gate Project Summary Sheets in UK NAO Ministry of Defence Major Projects Report 2008 for individual projects.

37 Defence Materiel Organisation Major Projects Report 2007-08, p 242.

between the DMO and the ANAO that the quality of the DMO's capability Key Performance Indicators is in need of improvement.<sup>38</sup>

2.54 The submissions indicate that the 2007-08 MPR experienced problems related to national security classifications<sup>39</sup> and there appears to be some clarification required around the appropriate way to report capability (i.e., in system engineering terms such as Measures of Effectiveness compared to user-based Key User Requirements terms).<sup>40</sup>

2.55 As alluded to above, the Committee sees the work of the UK NAO and Ministry of Defence Major Projects Report in relation to presenting information on performance against approved Key User Requirements, and reasons for variations against approved Key User Requirements<sup>41</sup> as the ideal model. The Committee also notes the following statement from the ANAO:

The ANAO is keen to see the inclusion in future MPRs of unclassified and standardised capability achievement information, in terms of risk categories to capability achievement as presented in the annual UK National Audit Office MPR. This information would best be based on the capability requirements set out in the Materiel Acquisition Agreements (MAAs) between Capability Development Group and DMO.<sup>42</sup>

2.56 The Committee concurs with this view. While accepting that the inclusion of this information in the MPR may take more time, the Committee believes that information will contribute significantly to the capacity of the ANAO to present the type of analysis the Committee requires (i.e., an analysis that presents an ANAO summary and key findings similar in format to that contained in the UK NAO Ministry of Defence MPR).<sup>43</sup>

2.57 The Committee also accepts that ideally the MPR would not contain 'quick fixes'.<sup>44</sup> However, the Committee believes that the provision of percentage data on traffic light counts for each project as an interim measure (as suggested by the DMO) does have some benefit. Until such time as the MPR is able to provide unclassified and standardised

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38 Mr Kim Gillis, transcript, 19 March 2009, p 3.

39 Australian National Audit Office, sub 2, p 6.

40 Australian National Audit Office, sub 2, p 6.

41 See, for example, *Section 4: Key User Requirements of Post Main Gate Project Summary Sheets* in *UK NAO Ministry of Defence Major Projects Report 2008*.

42 Australian National Audit Office, sub 2, p 6.

43 See *UK NAO Ministry of Defence Major Projects Report 2008*, p 4-9.

44 Defence Materiel Organisation, sub 3, p 9.

capability achievement information of the kind contained in the UK NAO Ministry of Defence MPR, the traffic light analysis provides the reader of the MPR with a more accurate assessment of the risks to capability for each project.

### **Recommendation 3**

**2.58 That the Defence Materiel Organisation provide a traffic light analysis of the percentage breakdown of Capability Measures of Effectiveness for each project. This traffic light analysis should be included in each MPR from 2009-10 onward until such time as the DMO is able to replace this analysis with unclassified and standardised capability achievement information.**

## **Improved analysis**

2.59 As referred to above, the Committee is keen for the MPR to include an analysis similar to that contained in the UK NAO Ministry of Defence MPR. The Committee is pleased to note that 'improved analysis regarding project management performance across all MPR projects both in year and across years'<sup>45</sup> was included as an area for improvement in future MPRs. The Committee was also pleased that it is the intention of the ANAO to provide such an analysis in future MPRs:

The ANAO is planning to undertake this type of analysis for inclusion in future MPRs and is currently considering ways of analysing and presenting project cost, schedule and capability data, with the view to provide an ANAO Summary and Key findings in the 2008-09 MPR.<sup>46</sup>

2.60 However, the Committee further notes:

Progress to date has been limited given the challenges with cost and performance trends and capability outlined above.<sup>47</sup>

2.61 The Committee is particularly interested in the provision of trend data in the MPR and inquired of both the DMO and the ANAO, via questions

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45 *Defence Materiel Organisation Major Projects Report 2007-08*, p 89.

46 Australian National Audit Office, sub 2, p 7.

47 Australian National Audit Office, sub 2, p 7.

taken on notice, how trend data will be presented and dealt with in future reports.

- 2.62 Responses to the Committee's questions indicate that work towards developing and presenting trend data is evolving although, as outlined earlier, it seems clear that the diversity across projects poses challenges as is evident from the ANAO's submission below:

Properly maintained Earned Value Management Systems (EVMSs) provide accurate indications of an individual project's cost and schedule variance and emerging trends. However, projects using Milestone-based progress measures without an accompanying EVMS, would experience difficulty in providing emerging trend data with regard to a contractor's cost performance.<sup>48</sup>

- 2.63 Moreover:

The emerging trends across multiple DMO projects would need to be obtained from the analysis of trends in similar project groups and comparing those trends across all groups.<sup>49</sup>

- 2.64 The Committee notes that the ANAO intends to work with the DMO to develop suitable systems for trend data collection, analysis and presentation, including multiple-project (program) trend information.<sup>50</sup>

- 2.65 The Committee also notes the DMO's commitment to work cooperatively in this regard:

I entirely support the development of trend data and its inclusion in future reports and we will engage with the ANAO on how best to portray this information.<sup>51</sup>

- 2.66 The Committee awaits advice on the progress of these discussions and will follow up the outcomes of those discussions in due course.

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48 Australian National Audit Office, sub 2, p 5.

49 Australian National Audit Office, sub 2, p 5.

50 Australian National Audit Office, sub 2, p 5.

51 Defence Materiel Organisation, sub 3, p 8.

## MPR schedule

### Project selection

- 2.67 The criteria for project inclusion in the 2008-09 MPR are set out in the 2008-09 Major Project Report Guidelines. These guidelines were developed by the DMO in consultation with the ANAO.<sup>52</sup> As outlined in paragraph 2.9 above, the MPR will report on 15 projects in 2008-09, with a further eight projects being added in 2009-10.<sup>53</sup>
- 2.68 On 13 August 2009, the Committee was provided with a list of proposed projects for the 2009-10 MPR for its consideration (Exhibit 3). In addition to those projects that will be repeated (see paragraph 2.9 above) the Committee has endorsed the following projects for inclusion in the 2009-10 MPR:
- Field Vehicles and Trailers – Overlander Program – LAND 121 Phase 3;
  - Next Generation Satellite Program – JP 2008 Phase 4;
  - New Heavyweight Torpedo – SEA 1429 Phase 2;
  - Follow-on Stand Off Weapon – AIR 5418 Phase 1;
  - Collins Submarines Reliability & Sustainability – SEA 1439 Phase 3;
  - Anzac Ship Anti-ship Missile Defence – SEA 1448 Phase 2A;
  - Maritime Patrol and Response Aircraft System – AIR 7000 Phase 2; and
  - Airborne Surveillance for Land Operations – JP 129 Phase 2.
- 2.69 The Committee also notes the following ‘Principles for New MPR Projects’ contained in Exhibit 3:
- Projects must have at least three years of asset delivery remaining (high cost of introducing a new project – min 3 years reporting life)
  - Total approved project budget >\$150m (to avoid picking up insignificant projects)
  - Projects must have at least \$50m or 10% of their budget remaining for the next two years (for sensible financial progress reporting)
  - [Defence Capability Plan] projects only admitted one year after [Year of Decision] (min time for projects to progress acquisition)
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52 Australian National Audit Office, sub 2, p 1.

53 Defence Materiel Organisation, sub 3, p 6.

- Maximum eight new projects in any one year (capacity constraints of DMO and ANAO)<sup>54</sup>
- 2.70 The Committee suggests the addition of the following final principle:
- All projects for inclusion in the MPR will be proposed by the DMO in consultation with the ANAO and provided to the JCPAA for comment.
- 2.71 The Committee notes from submissions that the list of projects to be included in each MPR should be settled by the end of September so as to allow sufficient time for preparation of the PDSS.<sup>55</sup> To that end, the Committee expects to be consulted on proposed projects for inclusion in the MPR by 31 August each year.
- 2.72 Similarly, the Committee notes that it will be consulted when the DMO and the ANAO have reached agreement on projects that have reached a state of 'practical completion'<sup>56</sup> and as such may no longer be appropriate to be reported on in the MPR. The Committee expects that should a decision be made to remove a project from the MPR, the ANAO and the DMO will provide a full rationale for its exclusion and that this rationale will be included into the MPR.
- 2.73 The Committee appreciates that the point at which the MPR will reach its maximum of thirty projects is dependent upon the level of resourcing available in both organisations. That said, the Committee anticipates that the MPR will contain thirty projects in the year 2010-2011.

#### **Recommendation 4**

- 2.74 **That no later than 31 August each year, the ANAO and the DMO will consult the Committee on the projects to be included in and, where appropriate, excluded from, the following year's MPR.**

#### **Timetabling**

- 2.75 Evidence provided to the Committee reinforces the point that scheduling for the MPR is time critical and that it will become more so as the number of projects increases to the maximum of thirty.<sup>57</sup>

54 Defence Materiel Organisation, exhibit 3, p 1.

55 Australian National Audit Office, sub 2, p 2.

56 Defence Materiel Organisation, sub 3, p 6.

57 See Australian National Audit Office, subs 1 and 2 (pages 9 and 7 respectively).

- 2.76 Indeed there appears to be a good deal of evidence to suggest that where an efficient schedule has not been agreed to by the parties, this is likely to lead to less than ideal outcomes such as scope reductions. The timetable for the pilot MPR appears to have put somewhat of a strain on both organisations.
- 2.77 As the ANAO state:
- The 2007-08 MPR demonstrated that schedule management was of critical importance to the report's overall quality.<sup>58</sup>
- 2.78 Similarly, the CEO of the DMO, Dr Gumley, in his Foreword to the MPR, also refers to the importance of ensuring efficient timelines:
- ...the time required for the projects to prepare their project data as at the end of the financial year, and the internal clearances required within the DMO, was extremely compressed during this pilot year. These timelines need to be reviewed to ensure that in the future the final MPR is a high quality product and provides surety regarding the published information.<sup>59</sup>
- 2.79 This concern was reiterated in the report itself, in 'Lessons Learned from the 2007-08 Major Projects Report and Intentions for Improvement', as follows:
- reviewing the schedule for the MPR – populating data in the PDSS, data assurance, ANAO assurance, and report compilation all exceeded planned pilot program schedule.<sup>60</sup>
- 2.80 The Committee notes that the ANAO requires an efficient schedule that distributes the work the ANAO is required to complete for the MPR (i.e., reviewing DMO projects and evidence supporting the data and narratives provided by the DMO) as evenly as possible from February to September each year.<sup>61</sup> The Committee will monitor this issue.
- 2.81 The Committee also welcomes the evidence provided to it on 19 August 2009, that it is the intention of the DMO and the ANAO to table the MPR 2008-09 on or before 18 November 2009.<sup>62</sup> This will afford the Committee an opportunity to examine the report prior to the end of the parliamentary sitting year.

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58 Australian National Audit Office, sub 2, p 7.

59 *Defence Materiel Organisation Major Projects Report 2007-08*, p 27.

60 Australian National Audit Office and the Defence Materiel Organisation, *Defence Materiel Organisation Major Projects Report 2007-08*, p 89.

61 Australian National Audit Office, sub 2, p 7.

62 Mr Hindmarsh, transcript, 19 August 2009, p 18.



## General

- 2.82 As referred to above, the MPR 2007-08 outlined a number of lessons learned from its development and intentions for improvements. One of these lessons included 'improvements in readability and comprehension that need to be addressed in the PDSS'.<sup>63</sup>
- 2.83 To that end, the Committee believes the readability of the document could be significantly improved by using a consistent order of projects across the document. For example, in the MPR 2007-08 the order in which the projects are presented or listed differs on page 20 (list of projects selected for review), page 58-81 (financial analysis of MPR projects), graphs on pages 84 and 85, and the order in which the PDSSs are presented.

### Recommendation 5

- 2.84 **That where possible the order of presentation of the projects will remain consistent across the Major Projects Report.**

## Committee comments

- 2.85 While recognising that improvements can be made to the MPR, the Committee is pleased with the MPR 2007-08 and it congratulates the parties involved on achieving that outcome.
- 2.86 The Committee is well aware that the MPR is not a substitute for performance audits and it welcomes the broader perspective that the report will be able to provide across the DMO portfolio.<sup>64</sup> That said, the Committee was reassured to hear evidence on 19 March 2009 that the ANAO will not be reducing its performance audits across the Defence portfolio.<sup>65</sup>

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63 Australian National Audit Office and the Defence Materiel Organisation, *Defence Materiel Organisation Major Projects Report 2007-08*, p 88.

64 Mr Ian McPhee PSM, transcript, 19 March 2009, p 7.

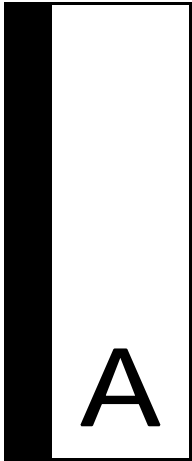
65 Mr Peter White, transcript, 19 March 2009, p 6.

- 2.87 The Committee notes that the relationship between the ANAO and the DMO continues to evolve in a positive way, with representatives from both agencies making comments to that effect.<sup>66</sup>
- 2.88 The Committee understands that it will take some time to 'bed down' the elements of the MPR and is keen to make a positive contribution to the ongoing development of the MPR and its components. It will continue to monitor the MPR process to ensure that where improvements can be made to that process, they will be.
- 2.89 The Committee also notes that it is currently undertaking an inquiry into the *Auditor-General Act 1997*. Whilst still ongoing, that inquiry is addressing, amongst other things, whether the Act's focus on the traditional assurance and performance audit roles should be expanded to take explicit account of newer functions performed by the Auditor-General such as reviewing the Major Projects Report.

Sharon Grierson MP  
Committee Chair

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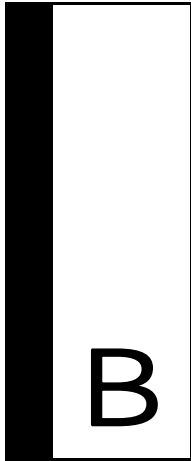
<sup>66</sup> See Mr Kim Gillis, transcript, 19 March 2009, p 2, and Australian National Audit Office, sub 1, p 9.



## Appendix A – List of submissions

- 1 Australian National Audit Office
- 2 Australian National Audit Office
- 3 Defence Materiel Organisation
- 4 Australian National Audit Office

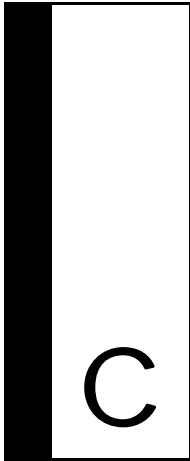




## Appendix B – List of exhibits

- 1 Defence Materiel Organisation  
*Correspondence: Amendment to the requirements of the project data summary sheets - Major Projects Report (29 June 2009)*
  
- 2 Australian National Audit Office  
*Correspondence: DMO Major Projects Report - Proposed amendment to project data summary sheets (10 August 2009)*
  
- 3 Defence Materiel Organisation  
*MPR Projects for 2009-10*





## Appendix C – Details of public hearings

**Thursday, 19 March 2009 – Canberra**

**Australian National Audit Office**

Mr Ian McPhee PSM, Auditor-General

Mr Peter White, Group Executive Director

Mr Michael White, Executive Director

Dr Ray McNally, Senior Director

**Defence Materiel Organisation**

Dr Stephen Gumley, Chief Executive Officer

Mr Kim Gillis, General Manager, Systems

Mr Tony Hindmarsh, Director-General, Change and Assurance;  
and Chief Audit Executive

Mr Paul Way, Director, Assurance Management and Committee  
Support

**Wednesday, 19 August 2009 – Canberra**

**Defence Materiel Organisation**

Dr Stephen Gumley, Chief Executive Officer

Major General Anthony Fraser, Head, Helicopter Systems Division

Air Vice Marshal John Harvey AM, Program Manager, New Air  
Combat Capability

Mr Tony Hindmarsh, Acting Head, Human Resources and Corporate  
Services

Mr Warren King, General Manager, Programs  
Mr Steve Wearn, Chief Finance Officer

Department of Defence

Rear Admiral Matt Tripovich, Chief Capability Development Group  
Mr Phillip Prior, Chief Finance Officer