

The Auditor-General  
Audit Report No.52 2011–12  
Performance Audit

# **Gate Reviews for Defence Capital Acquisition Projects**

**Department of Defence**

Australian National Audit Office

© Commonwealth  
of Australia 2012

ISSN 1036-7632

ISBN 0 642 81260 8

### **COPYRIGHT INFORMATION**

This work is copyright. Apart from any use as permitted under the *Copyright Act 1968*, no part may be reproduced by any process without prior written permission from the Commonwealth.

Requests and inquiries concerning reproduction and rights should be addressed to:

Executive Director  
Corporate Management Branch  
Australian National Audit Office  
19 National Circuit  
BARTON ACT 2600

Or via email:  
[webmaster@anao.gov.au](mailto:webmaster@anao.gov.au)



Canberra ACT  
26 June 2012

Dear Mr President  
Dear Mr Speaker

The Australian National Audit Office has undertaken an independent performance audit in the Department of Defence with the authority contained in the *Auditor-General Act 1997*. I present the report of this audit and the accompanying brochure to the Parliament. The report is *Gate Reviews for Defence Capital Acquisition Projects*.

Following its presentation and receipt, the report will be placed on the Australian National Audit Office's Homepage—<http://www.anao.gov.au>.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Ian McPhee', is positioned above the printed name.

Ian McPhee  
Auditor-General

The Honourable the President of the Senate  
The Honourable the Speaker of the House of Representatives  
Parliament House  
Canberra ACT

## AUDITING FOR AUSTRALIA

The Auditor-General is head of the Australian National Audit Office (ANAO). The ANAO assists the Auditor-General to carry out his duties under the *Auditor-General Act* 1997 to undertake performance audits, financial statement audits and assurance reviews of Commonwealth public sector bodies and to provide independent reports and advice for the Parliament, the Australian Government and the community. The aim is to improve Commonwealth public sector administration and accountability.

For further information contact:

**The Publications Manager**  
**Australian National Audit Office**  
**GPO Box 707**  
**Canberra ACT 2601**

**Telephone: (02) 6203 7505**

**Fax: (02) 6203 7519**

**Email: [webmaster@anao.gov.au](mailto:webmaster@anao.gov.au)**

ANAO audit reports and information about the ANAO are available at our internet address:

<http://www.anao.gov.au>

---

### **Audit Team**

David Rowlands  
Zoë Pleasants  
Jennifer Myles  
Fran Holbert

# Contents

Abbreviations.....	8
<b>Summary and Recommendations .....</b>	<b>11</b>
Summary .....	13
Introduction .....	13
Audit objectives and scope .....	14
Overall conclusion .....	15
Key findings by chapter.....	17
Agency response .....	21
Recommendations .....	23
<b>Audit Findings .....</b>	<b>25</b>
1. The Defence Materiel Organisation and Capital Acquisition Projects .....	27
DMO's role in Defence .....	27
The purpose of DMO Gate Reviews .....	28
Organisational arrangements for DMO projects .....	33
Previous relevant ANAO performance audits and other relevant reviews.....	36
Audit objective and scope .....	37
Audit method .....	37
Structure of this report.....	38
2. Implementation of Gate Reviews .....	40
Examining the implementation of Gate Reviews .....	40
Origins of the 'gate' concept .....	41
The inception of DMO Gate Reviews.....	46
Progress with Gate Review implementation .....	52
Administrative policy for Gate Reviews.....	56
Conclusion .....	60
3. Conduct of Gate Reviews .....	62
Introduction .....	62
Essential characteristics of Gate Reviews .....	63
The conduct of Gate Reviews observed by ANAO .....	67
Interviews with Gate Review personnel.....	70
Analysis of Gate Review records .....	71
Case Studies.....	84
Conclusion .....	87
4. DMO Monitoring of Gate Reviews .....	88
Monitoring and Review.....	88
DMO monitoring of Gate Review action items.....	89

Evaluation of the Gate Review process .....	93
Learning from experience with capital acquisition projects.....	97
Costs and sustainability of Gate Reviews.....	100
Conclusion .....	105
<b>Appendices .....</b>	<b>107</b>
Appendix 1: Gate Review Objectives .....	109
Appendix 2: Key dates in development of DMO Gate Reviews .....	113
Appendix 3: Details of Gate Reviews attended by ANAO .....	117
Appendix 4: Case Studies .....	119
Case Study 1 LAND 106—M113 Upgrade .....	119
Case Study 2 LAND 112 PHASE 4—ASLAV ENHANCEMENT .....	125
Case Study 3 AIR 9000 PHASE 2, 4, 6—MRH-90 helicopter .....	130
Appendix 5: Evaluation of the Gate Review Program 9 June 2011 .....	134
Index.....	136
Series Titles.....	138
Current Better Practice Guides .....	144
 <b>Tables</b>	
Table 1.1 Gate Review decision points, by project phase.....	30
Table 1.2 IPPO: Branch Directorates and Responsibilities .....	36
Table 3.1 Measuring DMO's success factors for Gate Reviews .....	65
Table 3.2 Completeness of DMO records of Gate Reviews held before 31 December 2011 .....	72
Table 3.3 Coordination of Gate Reviews, August 2009 – July 2011 .....	75
Table 3.4 Percentage of Gate Review Assurance Boards including one or two external members, August 2009 – July 2011 .....	78
Table 3.5 Compliance of Gate Reviews against the essential characteristics, August 2009 – July 2011 .....	80
Table 3.6 Compliance of Gate Reviews against the essential characteristics, July 2011 – 31 December 2011 .....	81
Table 3.7 Percentage of Gate Review Assurance Boards including one or two external members, July 2011 – 31 December 2011 .....	83
Table 4.1 Summary data from DMO's Gate Review Metric Register .....	98
 <b>Figures</b>	
Figure 1.1 Simplified representation of capital acquisition project lifecycle.....	28
Figure 1.2 Basic organisational structure of DMO .....	34
Figure 2.1 Number of DMO Gate Reviews held, July 2008 – December 2011 .....	56

Figure 3.1      Attributes considered by DMO to contribute to successful Gate  
Reviews ..... 64

Figure 3.2      Percentage of Gate Reviews, for which DMO documented a  
preliminary analysis of the project, August 2009 – July 2011 ..... 76

Figure 3.3      Seniority of Gate Review Assurance Board chairs for Gate  
Reviews held August 2009 – July 2011 ..... 79

Figure 3.4      Percentage of Gate Reviews, chaired by a manager with some  
responsibility or accountability for the project under review,  
August 2009 – July 2011 ..... 79

# Abbreviations

---

ACAT	Acquisition Category
ADF	Australian Defence Force
ASLAV	Australian Light Armoured Vehicle
BPUP	Ballistic Protection Upgrade Package
CCP	Contract Change Proposal
CDG	Capability Development Group
CEO	Chief Executive Officer
CIOG	Chief Information Officer Group
DCP	Defence Capability Plan
Defence	Department of Defence
DGGA	Director-General, Governance and Assurance
DGLMS	Director-General, Land Manoeuvre Systems
DMI	Defence Materiel Instruction
DMO	Defence Materiel Organisation
DSG	Defence Support Group
DSTO	Defence Science and Technology Organisation
EI&W	Early Indicators and Warnings
ESKi	Enhanced Survivability Kit
FIC	Fundamental Input to Capability



Finance	Department of Finance and Deregulation
FOC	Final Operational Capability
FPS	Functional Performance Specification
GFE	Government-Furnished Equipment
GRAB	Gate Review Assurance Board
IOC	Initial Operational Capability
IP	Intellectual Property
IPPO	Independent Project Performance Office
M113	A model of armoured personnel carrier vehicle
MAA	Materiel Acquisition Agreement
MOTS	Military-off-the-shelf
MPR	ANAO/DMO Major Projects Report
MRH-90	Multi-role helicopter
OCD	Operational Concept Document
OGC	UK Office of Government Commerce
PAR	Procurement Assurance Review
QEMS	Quality Environmental Management System
SPO	Systems Program Office
YOD	Year of Decision



# **Summary and Recommendations**



# Summary

---

## Introduction

1. The Defence Materiel Organisation (DMO) is a large organisation within the Department of Defence which buys and maintains equipment for the Australian Defence Force (ADF). DMO currently manages about 180 major capital acquisition projects, many of which are technically complex, high-cost endeavours conducted over many years.
2. Gate Reviews are an internal DMO assurance process for these projects. They are not a replication of the Australian Government's *Gateway Review process*.<sup>1</sup> DMO's objective in conducting Gate Reviews is to supplement regular management processes by: providing a degree of external scrutiny of projects; facilitating frank communication among stakeholders; and enabling DMO senior management to intervene with projects at critical times, and report to government where necessary.<sup>2</sup>
3. Gate Reviews involve a periodic assessment of a project, at key milestones during a project's lifecycle, by a DMO-appointed Gate Review Assurance Board. This board comprises senior DMO management and up to two external members. The centrepiece of each Gate Review is a meeting attended by the project team, key stakeholders and the board. Before this meeting, the board is informed by a preliminary analysis of the project, undertaken by someone not involved with the project, which describes the project's history, current status and the major issues it faces.
4. Gate Review meetings provide an opportunity for senior DMO management to seek insight into a project's progress and for project staff to discuss difficult issues with senior management and seek their guidance. Following the meeting, the board makes a recommendation regarding the progress of the project and develops a list of action items to address identified

---

<sup>1</sup> The Australian Government's *Gateway Review Process* is managed by the Department of Finance and Deregulation. It is a proprietary process developed by the UK Office of Government Commerce (OGC) which involves short, intensive reviews of projects by a team of reviewers not associated with the project. See ANAO Audit Report No. 22 2011–12, *Administration of the Gateway Review Process*, February 2012.

<sup>2</sup> The formal objective of a Gate Review varies with the point in the project lifecycle at which it takes place. The current milestones and objectives are set out in an attachment to the DMO administrative policy for Gate Reviews and Appendix 1 of this report.

issues. DMO's own analysis of Gate Reviews it has conducted to date indicate that common issues leading to project problems are unrealistic schedules and poorly-defined project scope.

5. DMO first publicly discussed its intention to implement Gate Reviews in July 2008.<sup>3</sup> It held its first two Gate Reviews in August and September 2008 but did not conduct any more until September 2009. DMO approved its administrative policy for Gate Reviews in December 2009 and held Gate Reviews in accordance with this policy through 2010 and early 2011, though with a varying degree of rigour. Between September 2009 and July 2011, some Gate Reviews were centrally managed by DMO's Major Program Control Branch and some were managed by the DMO division in which the project resided.

6. The program was reinvigorated following a ministerial announcement in May 2011, and Gate Reviews are now DMO's most prominent project assurance activity. In July 2011, DMO established its Independent Project Performance Office (IPPO) and centralised management for Gate Reviews within this office. IPPO holds records for 81 of the 115 Gate Reviews conducted between July 2008 and July 2011 and holds records for all but one of the 48 Gate Reviews conducted between July 2011 and December 2011.

7. As a mechanism for providing additional management focus on project risk, DMO's Gate Reviews are developing an increasingly high profile. The Ministers for Defence and Defence Materiel have stated that they value the assurance they provide and have, on occasions, either requested a Gate Review be conducted or announced that one has been held.

## **Audit objectives and scope**

8. The objective of this audit was to examine the effectiveness of DMO's implementation of its Gate Review process for major Defence capital acquisition projects.

9. The audit examined how DMO developed, has implemented and is monitoring its Gate Review process. First, the audit examined how DMO developed its administrative policy for conducting Gate Reviews; second, it analysed records of Gate Reviews held between July 2008 and

---

<sup>3</sup> Joint Standing Committee on Foreign Affairs, Defence and Trade, Review of the Defence Annual Report 2006–07, Committee Hansard, 10 July 2008, p. 10.

31 December 2011 against objectively testable characteristics; and third, it examined how DMO monitors and reviews the effectiveness of its Gate Review program, including how it follows up action items recommended by Gate Review Assurance Boards and monitors the cost of running the program.

## Overall conclusion

**10.** Major defence capital acquisitions contribute to the overall capability of the ADF. Building and maintaining the ADF's capability is important to the defence of Australia and in enabling the ADF to fulfil Australia's international obligations. Major defence capital acquisition projects require the allocation of considerable public resources which, if not well-managed, are not readily or easily replaced by a new allocation.

**11.** It is likely that most members of the Australian public have little perception of the size of the DMO project portfolio and the number of capital acquisition projects under DMO management at any given time—about 180 major projects (each costing over \$20 million) and about 100 minor projects. Not only is it self-evidently important that such major projects are completed as effectively and efficiently as possible, but it can also become a matter of considerable public interest and debate if projects fail to deliver. At worst, such failures can give rise to gaps in defence capability.

**12.** DMO has identified the failure of the Super Seasprite helicopter acquisition project as motivating it to introduce Gate Reviews to mitigate project risks and to obtain assurance of a project's continued viability.<sup>4</sup> This type of review is not novel and is a widely used project assurance technique in both the public and private sectors. Since first recognising the need for this approach, DMO has taken several years to implement the program and, during the period July 2008 to July 2011, the quality and rigour of the Gate Reviews conducted varied, as did the number being undertaken. However, DMO has now developed an approach that is providing better assurance, with potential to improve the management of its projects.

**13.** DMO has improved the effectiveness with which it implements its Gate Review program since establishing its Independent Project Performance Office (IPPO) in July 2011, and centralising the management of all Gate Reviews

---

<sup>4</sup> The Super Seasprite project ran for more than 12 years, delivered no capability and, at cancellation, cost over \$1.4 billion. See ANAO Audit Report No.41 2008–09, *The Super Seasprite*, 17 June 2009.

within IPPO. As a result of these changes the program has strengthened and is better regulated. However, there remain opportunities for further improvement and rigour, especially in ensuring the follow-up of Gate Review outcomes.

14. From the outset DMO intended to build the program to undertake one Gate Review each year for each major project. This could require around 200–220 Gate Reviews a year and includes Gate Reviews for major projects under direct DMO management as well as Gate Reviews of an additional 20–40 projects in which DMO has an involvement but are under the direct management of other Defence groups. DMO informed the ANAO that it plans to reduce the total number of Gate Reviews required by excluding those projects close to completion where the benefits of a Gate Review are estimated to be low.

15. DMO's capacity to execute the number of Gate Reviews it wishes to undertake is constrained by the small pool of skilled resources (including the group from whom it selects the external members to place on Gate Review Boards) and the substantial involvement of senior management in Gate Reviews. This introduces a degree of fragility into the arrangements, an aspect which warrants monitoring by senior management to ensure that the expected benefits can be delivered by this program.

16. DMO has not yet established a reliable monitoring system to ensure that actions flowing from a Gate Review are completed by those assigned responsibility for them. This means that there is no guarantee the insights gained will be recognised and improvements required of projects will be implemented. This could detract from the overall effectiveness of the program. In addition, it inhibits the ability to measure the effectiveness of the program. DMO has acknowledged this shortcoming and has advised that it plans to address it.

17. DMO's development and implementation of its Gate Review program has been slower than hoped for at the outset and the program has clearly been maturing to this point. The additional impetus and resources DMO has devoted since July 2011 are now starting to bear fruit. However, there would be merit in DMO taking steps to reinforce within the organisation those aspects of the arrangements that are now yielding value. This includes the relative independence of the management of Gate Reviews by IPPO from DMO's operational divisions, IPPO's authority to manage the program in accordance with DMO's administrative policy, and communicating the issues—which



Gate Reviews highlight—that lead to project problems. Further, it is necessary to ensure that regular project management and oversight processes continue to improve. Gate Reviews are a useful supplement, but no substitute, for effective day-to-day management of projects.

18. The ANAO has made three recommendations, relating to:

- ensuring that a control mechanism is deployed to monitor the status and completion of actions arising from Gate Reviews;
- planning for and, in due course, evaluating the Gate Review program; and
- implementing a mechanism to identify from the Gate Review program the risks that arise in the management of capital acquisition projects.

## Key findings by chapter

### Implementation of Gate Reviews (Chapter 2)

19. DMO's Gate Reviews are an internal assurance process which include elements of external scrutiny and independence. This process is not a replication of the Commonwealth-wide *Gateway Review Process*, a wholly external review process. Rather, DMO advises its methods are partly derived from Gateway and partly from practices observed by DMO executives in private organisations.

20. In July 2008, DMO senior managers advised a Parliamentary Committee that the expected benefits of the Gate Review program would include: external scrutiny of projects; detailed, analytical executive-level review; risk mitigation; and improved advice to government as to the health and outlook of projects.

21. DMO held its first two Gate Reviews in August and September 2008, shortly after giving this advice. They took place before the development of any administrative policy prescribing how they were to be conducted. No further Gate Reviews were held until September 2009.

22. After the publication of the *Going to the Next Level* report (Mortimer Review) in September 2008, Gate Reviews became associated with that review although none of the Mortimer Review's formal recommendations refer to

Gate Reviews. However, the report did note that DMO was implementing Gate Reviews and suggested that they be expanded.<sup>5</sup>

23. In August 2009, DMO assigned responsibility for the Gate Review program to its Major Program Control Branch and, during the remainder of 2009, held 18 Gate Reviews. On 16 December 2009, the then CEO DMO approved DMO's Gate Review policy, which was formally released as a Defence Materiel Instruction. The frequency of Gate Reviews increased steadily during 2010, with most being coordinated by the DMO's six divisions until July 2011.

24. DMO's Gate Review program was reinvigorated following a ministerial announcement on 6 May 2011. In response to this announcement and consistent with a recommendation of the Mortimer Review, DMO established its Independent Project Performance Office (IPPO) in July 2011, and centralised management of all Gate Reviews within this office. Under IPPO's management, standardised practices and better recordkeeping have become evident. However, DMO's target of holding Gate Reviews at a rate of at least one Gate Review per major project per year is not yet attainable unless it can increase its current effort. It is likely that DMO will conduct a total of 125 Gate Reviews in 2011–12 from approximately 200–220 eligible projects within its purview.<sup>6</sup>

25. Since the original Gate Review administrative policy was approved, the program has evolved and IPPO has attempted to incorporate developing practice by updating the policy in two separate draft amendments. Towards the end of the audit, in late April and early May 2012, two further amendments to the policy were approved.<sup>7</sup> DMO's compliance with the administrative policy reflected in these latest amendments has not been specifically assessed in this audit.

---

<sup>5</sup> Mortimer, David, *Going to the Next Level: the report of the Defence Procurement and Sustainment Review*, 2008, p. 35.

<sup>6</sup> This includes about 180 major projects under direct DMO control as well as 20 to 40 projects in the pre-second pass phase of capability development.

<sup>7</sup> The current policy, approved in May 2012 differs significantly from the original approved policy and the two draft amendments which were the focus of this audit. The major changes in the latest approved amendment are outlined in Chapter 2.

### Conduct of Gate Reviews (Chapter 3)

26. ANAO obtained records from DMO for 163 Gate Reviews held between July 2008 and 31 December 2011. Of these records, 35 (or 21 per cent) were incomplete. ANAO analysed the conduct of the remaining 128 Gate Reviews, for which complete records were available, to determine the level of compliance with the following essential characteristics:

- the presence of a documented preliminary analysis of the project, conducted before the Gate Review, by someone not involved in the project;
- the presence of external members on the Gate Review Assurance Board; and
- that the chair was sufficiently senior and was not directly responsible or accountable for the project under review.

27. ANAO found that, between August 2009 and July 2011, the conduct of Gate Reviews varied according to the acquisition category (ACAT level—broadly, the scale and complexity) of the project being reviewed. During this period there was, in effect, a two-tiered Gate Review program. Most Gate Reviews of the largest and most complex projects—ACAT I and II—were coordinated by DMO's Major Program Control Branch (IPPO's predecessor), and most Gate Reviews of the smaller and less complex ACAT III and IV projects were coordinated by the divisions in which the projects resided.

28. During this period, Gate Reviews of ACAT I and II projects were generally chaired by a General Manager with no responsibility for the project under review, informed by a documented preliminary analysis conducted by someone not involved with the project, and considered by a Gate Review Assurance Board that included at least one external member. In comparison, Gate Reviews of ACAT III and IV projects were generally chaired by the Division Head responsible for the project under review, not informed by a documented preliminary analysis, but were considered by a Gate Review Assurance Board that included one external member. Most Gate Reviews for which DMO's records are incomplete were reviews of ACAT III and IV projects held during this period.

29. In July 2011, DMO centralised the management of all Gate Reviews within IPPO. Under IPPO's management, the variation has decreased between Gate Reviews for ACAT I and II projects and ACAT III and IV projects, and the administration of the program has improved: DMO had complete records for

all but one of Gate Reviews held since IPPO assumed responsibility. Most of these Gate Reviews were informed by a preliminary analysis conducted by someone not involved with the project and were considered by a Gate Review Assurance Board that included two external members. However, for more than half of all Gate Reviews held during this period, the chair had some responsibility or authority for the project under review.

30. ANAO attended and observed eight Gate Reviews between September and November 2011. All the Gate Reviews attended were supported by a comprehensive preliminary analysis. Most were well attended with an appropriate level of representation from all the relevant stakeholder groups within Defence (including, for example, representatives of the Capability Manager and Capability Development Group). The discussion at each Gate Review appeared to be open and frank and aimed at resolving problems without blame.

31. Interviews with individuals involved in Gate Reviews (including external members, chairs and members of the executive) indicate a generally positive view of the program. All interviewees agreed that the preliminary analysis conducted by someone external to the project was the most important aspect of the process. Other positive views expressed related to the benefit of external members and centralising the management of Gate Reviews within IPPO. Negative comments referred to the absence of a mechanism to follow up action items, the risk of developing an over-optimistic perception that the Gate Review program will identify and address all problems, and the resource impact on project staff and senior management.

## **Monitoring and Reviewing Gate Reviews (Chapter 4)**

32. Assessing the success of any initiative, and determining whether it is performing as expected, requires a means of measuring performance, preferably using objective indicators. DMO's positive assessment of the success of Gate Reviews has hitherto been based on the professional judgement of those involved. Although relevant DMO staff have met to consider and evaluate the program on several occasions, they have not been able to base their assessment on any objective data. While DMO has recently started collecting data against a range of metrics, it will take several years to aggregate systematic information on the effectiveness of Gate Reviews in reducing project risk and improving project outcomes.

33. Gate Reviews are generating a large number of action items aimed at resolving problems and improving outcomes for the project under review. DMO has not yet established a reliable monitoring system to ensure that these actions are completed by those assigned responsibility for them. This could detract from the overall effectiveness of the program. In addition, it inhibits the ability to measure the effectiveness of the program. DMO has acknowledged this shortcoming and plans to address it.

34. There have been some incidental consequences of the Gate Review program. Some are positive, such as increased stakeholder engagement across Defence in projects, and some have been negative, such as variable use of the term 'Gate Review' both in DMO and in the broader Defence organisation, which risks devaluing the program. There is an opportunity for a consistent understanding of DMO's Gate Review program to develop throughout DMO, now that it has an approved policy that reflects current practice.

35. Gate Reviews are a resource intensive activity. Sustaining the program with the current level of rigour and increasing the rate to one Gate Review per major project per year will be challenging. Using figures provided by DMO, ANAO estimates the cost of the program at some \$6 million annually. This is a substantial figure, representing an additional investment in project management of 0.1 per cent of the total acquisition budget managed by DMO. To date, DMO has not conducted a formal cost benefit analysis of the Gate Review program.

## Agency response

36. Defence provided the following response to the report:

Defence welcomes the ANAO audit report on Gate Reviews for Defence Capital Acquisition Projects and accepts all three recommendations. Defence acknowledges that the report provides opportunities to build on the progress already made in the delivery and assurance of capital acquisition projects. The ANAO acknowledge that the Gate Reviews are resource intensive. Implementing the Recommendations will require, in particular, additional resources to provide a more rigorous systematic program evaluation to measure the effectiveness of Gate Reviews as well as to include Gate Review risk analysis.

Defence notes that effecting fundamental change in an organisation as large and complex as Defence is a time consuming and challenging process. To ensure that the full benefits of effective Gate Reviews can be achieved, cultural change is required. The project management improvements flowing from the

Gate Reviews need to be embedded into Defence practice. Defence has taken a measured approach to ensure the process is implemented effectively, incorporating lessons learned along the way. This measured approach to the introduction of Gate Reviews is now delivering the transformational behaviour that Defence had anticipated when introducing the Gate Review program.

Although this program introduction may have been deemed *'slower than hoped'* by the ANAO, Defence notes that the ANAO has also acknowledged that the *'additional impetus and resources DMO has devoted since July 2011 are now starting to bear fruit'*.

# Recommendations

---

## Recommendation No. 1

### Para 4.21

The ANAO recommends that Defence ensures that a control mechanism is deployed to monitor the status and completion of actions recommended by Gate Review Assurance Boards and agreed by the relevant executive.

**Defence response:** Agreed.

## Recommendation No. 2

### Para 4.32

The ANAO recommends that Defence:

- initiates planning to systematically evaluate DMO's Gate Review program. Suitable performance measures need to be identified and put in place early to inform an evaluation; and
- undertakes that evaluation when sufficient data is available to enable it to draw sound conclusions about Gate Reviews as a project assurance technique.

**Defence response:** Agreed.

## Recommendation No. 3

### Para 4.49

The ANAO recommends that Defence implements a mechanism to systematically collect and analyse data from Gate Reviews relating to the risks that arise in management of capital acquisition projects to enable development of a means of addressing and reducing such risks and incorporates these into its training tools for project managers.

**Defence response:** Agreed.





## **Audit Findings**



# 1. The Defence Materiel Organisation and Capital Acquisition Projects

---

*This chapter provides a brief introduction to the DMO Gate Reviews and the context in which they operate, and to the audit.*

## DMO's role in Defence

**1.1** The Defence Materiel Organisation (DMO) is an organisation within the Department of Defence (hereafter, 'Defence') that buys and maintains equipment for the Australian Defence Force (ADF).<sup>8</sup> With a cash budget in 2011–12 of more than \$10 billion, DMO manages about 180 major capital acquisition projects, 100 minor projects, and maintains physical assets and inventory valued at more than \$46.8 billion. Gate Reviews are part of DMO's internal assurance framework for capital acquisition projects.

**1.2** DMO's organisational purpose is to 'Equip and sustain the Australian Defence Force'. This is done in support of Australia's national security. Many of the capital acquisition projects managed by DMO are technically complex, high-cost endeavours characterised by risk and long time frames between concept, delivery and acceptance into service. In January 2012, DMO envisaged spending \$115 billion on capital acquisition and sustainment over the next ten years.<sup>9</sup>

## Phases of the acquisition process

**1.3** Defence capital acquisition projects pass through a series of defined phases: identifying a capability need, specifying requirements, acquisition, use in-service by the ADF, and ultimate disposal (Figure 1.1). Defence's Capability Development Group (CDG) is responsible for managing a project from conception until acquisition can commence, when responsibility formally passes to DMO. DMO acquires the equipment to support the capability, as approved by government, sustains it through its in-service life, and disposes of it when it is no longer needed by the ADF.

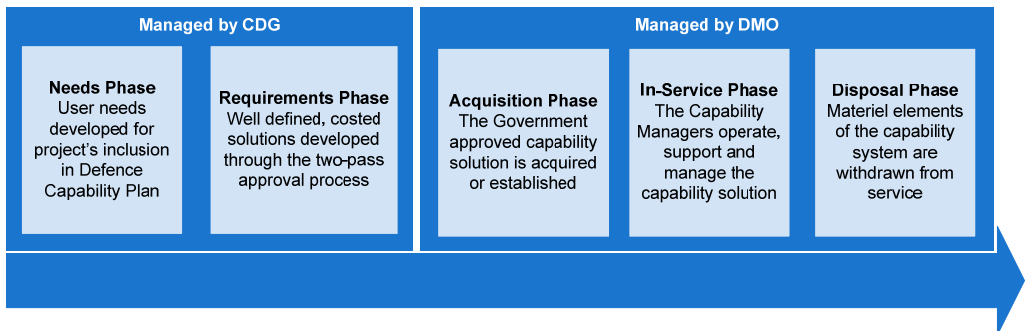
---

<sup>8</sup> DMO was established in June 2000 and made a prescribed agency under the *Financial Management and Accountability Act 1997* following a government decision in September 2003.

<sup>9</sup> Defence Materiel Organisation, *Inside the Defence Materiel Organisation*, February 2012, p. 2; see <[http://www.defence.gov.au/dmo/id/publications/DMO\\_Flipbook\\_MAR2012.pdf](http://www.defence.gov.au/dmo/id/publications/DMO_Flipbook_MAR2012.pdf)> [accessed 2 March 2012].

Figure 1.1

Simplified representation of capital acquisition project lifecycle



Source: ANAO, based on CDG/DMO documentation.

Responsibility for the phases

1.4 DMO formally assumes responsibility for managing a capital acquisition project at the decision point known as ‘second-pass’ approval. At this point, government has agreed to acquire a specific, well-defined capability. Before this point, CDG is responsible for developing ADF user needs into a defined capability, seeking Government agreement in-principle for the project (‘first-pass’ approval) and preparing the detailed, costed proposal for second-pass approval. However, DMO is also actively involved during the development phases managed by CDG, working closely with CDG personnel. Developing a project to the point of second-pass approval can take a great deal of work and a long time, sometimes several years. Thus, a project may have been underway for some years before acquisition of the required capital equipment starts and DMO takes on full management responsibility.<sup>10</sup>

The purpose of DMO Gate Reviews

1.5 Major defence capital acquisition projects frequently attract Parliamentary and public interest because of their planned contribution to national security, their capacity to generate local employment in high-

<sup>10</sup> The *Defence Procurement and Sustainment Review* (generally known as ‘the Mortimer Review’) notes that current procedures allow a project to be entered into the Defence Capability Plan (DCP) ten years before it goes to Government for second-pass approval (Report of the *Defence Procurement and Sustainment Review*, ‘Going to the Next Level’, 2008, p. 11, available from <<http://www.defence.gov.au/publications/mortimerreview.pdf>> [accessed 11 January 2012].) The 2006 edition of the *Defence Capability Development Manual* also stated that ten years could elapse between DCP entry and second-pass approval.

technology industry, and their cost, which can be substantial. Managing these projects successfully, and keeping them within corporate and ministerial visibility and control, requires a robust project assurance framework.<sup>11</sup>

**1.6** Gate Reviews form part of DMO's internal assurance framework for capital acquisition projects.<sup>12</sup> They are intended to improve project outcomes and ensure that DMO can provide high quality and reliable advice to Defence and to government as to a project's health and outlook.<sup>13</sup>

**1.7** Gate Reviews involve an assessment by a DMO-appointed body (known as a 'Gate Review Assurance Board') of a project's readiness to proceed to the next stage of its lifecycle: that is, through a project 'gate'. Generally, the assessments are held before the project reaches a major milestone. DMO intends that the board should comprise senior DMO management and external members.<sup>14</sup> A measure of independence is provided by both the contribution of the external members, and when so chosen, by having a chair who is a senior manager not responsible for the project under review.

**1.8** The term 'gate' refers to a major project decision point or milestone, some of which DMO regards as mandating a Gate Review (Table 1.1).

---

<sup>11</sup> UK Office of Government Commerce, *Managing Successful Projects*, 2007, p. 19.

<sup>12</sup> DMO Gate Reviews are not to be confused with the Department of Finance and Deregulation's *Gateway Review Process*. This is discussed in Chapter 2.

<sup>13</sup> Defence Materiel Instruction (A&S) 14-0-003 Version: 1.0 *Gate Reviews for DMO Acquisition Projects*, 16 December 2009.

<sup>14</sup> The Minister for Defence provided a list of the fifteen (then) current external members in an answer to a Parliamentary Question. See: Answer to question on notice, 'Defence: Early Indicators and Warning System (Question No. 1441)', *Senate Hansard*, 9 February 2012.

**Table 1.1**

**Gate Review decision points, by project phase**

Decision Point / Milestone
<p>Defence Capability Plan (DCP) entry (All projects in a DCP update will be considered by the General Managers in a combined review)</p> <p>First-pass consideration (<b>Mandatory</b>)</p> <p>Second-pass consideration (<b>Mandatory</b>)</p>
<p>Industry Solicitation</p> <p>Project Approval</p> <p>Contract Negotiation</p> <p>Contract signature (<b>Mandatory</b>)</p> <p>Contract start</p>
<p>Performance review, aligned to contract milestones or project milestones.</p>
<p>Initial Materiel Release (IMR)</p> <p>Final Materiel Release (FMR)</p> <p>Materiel Acquisition Agreement (MAA) Closure</p>

Source: DMO, Defence Materiel Instruction (A&S) 14-0-003, 16 December 2009, Annex A.<sup>15</sup>

**1.9** DMO also requires a Gate Review of a project to be held where the risks known about the project merit such a review. For example, DMO may require a Gate Review where new information about a project triggers an early warning of a difficulty arising.<sup>16</sup> In any case, DMO has intended that every project undergo at least one Gate Review each year.

**1.10** DMO conducts Gate Reviews throughout the needs, requirements and acquisition phases of a project's lifecycle. This includes the earlier period, when the project is being managed by CDG. This extends the number of projects that can be subject to a Gate Review beyond the numbers usually

<sup>15</sup> The decision points and their mandatory status have changed over time. The decision points and corresponding objectives contained in the most recent Gate Review instruction (DMI (EXEC) 00-0-009 Version: 1.0 *Gate Reviews for DMO Projects*, 3 May 2012) are detailed at Appendix 1.

<sup>16</sup> DMO has implemented its 'Early Indicators and Warnings' (EI&W) system to identify problems with projects 'early' to allow for remediation of issues before they affect delivery. EI&W uses defined triggers to measure projects against schedule, cost, capability, industry or risk thresholds. A project triggering a breach on mandated thresholds is to be notified to line management to determine remedial actions, which may include a Gate Review. See Defence Annual Report 2010–11, vol. 2, p. 109, available from: <[http://www.defence.gov.au/Budget/10-11/dar/dar\\_1011\\_v2\\_s2.pdf](http://www.defence.gov.au/Budget/10-11/dar/dar_1011_v2_s2.pdf)> [accessed 21 February 2012].

referred to by DMO in describing its responsibilities.<sup>17</sup> DMO does not generally conduct Gate Reviews during the sustainment phase of a project.<sup>18</sup>

**1.11** DMO's internal instruction on the conduct of Gate Reviews characterises their purpose as providing 'a collegiate assessment of project performance and plans, against the Government-approved business case.'

## **Gate Reviews have assumed a high profile**

**1.12** DMO's Gate Reviews have developed an increasingly high profile, including in public discussion of Defence acquisitions. The Joint Committee of Public Accounts and Audit noted, in late 2008, the evidence of the CEO DMO before the Defence Subcommittee of the Joint Standing Committee on Foreign Affairs, Defence and Trade about 'the new steps being taken to mitigate risk through the gate review process'.<sup>19</sup> In later evidence to another Parliamentary committee DMO has identified Gate Reviews as a 'process to thoroughly flush out all of the issues' associated with a troubled project.<sup>20</sup>

**1.13** There have also been occasions when a Gate Review has been announced at ministerial level and received attention and discussion in the Defence industry press.<sup>21</sup> The Minister for Defence Materiel has identified Gate

---

<sup>17</sup> The number of projects DMO is managing has declined recently. Evidence provided to the Senate Foreign Affairs, Defence and Trade Committee in October 2011 indicated that DMO was running between 230 and 240 major projects (Hansard, 7 October 2011, p. 5). Information from DMO tabled on 9 February 2012 shows that the number of major projects was calculated to be 181 as at 1 November 2011. Later information from DMO is that the number is expected to stabilise at around 170 by the end of 2012. DMO Gate Review records indicate that there are an additional 20 to 40 projects subject to first and second-pass Gate Reviews each year.

<sup>18</sup> See DMO evidence to the Senate Foreign Affairs, Defence and Trade Committee, Committee Hansard, 7 October 2011, p. 49. To date, DMO has undertaken at least three Gate Reviews of sustainment activities, including for sustainment of Collins-class submarines.

<sup>19</sup> Joint Committee of Public Accounts and Audit, Report 411, *Progress on equipment acquisition and financial reporting in Defence*, August 2008, p. 136.

<sup>20</sup> Evidence provided by the CEO DMO, to the Joint Standing Committee on Foreign Affairs, Defence and Trade, Defence Subcommittee, Review of the Defence Annual Report 2009–10, Hansard, 25 March 2011.

<sup>21</sup> For example, the decision to conduct a Gate Review for the delayed project to acquire MRH-90 helicopters was announced by the Minister for Defence Materiel on 1 February 2011, at a press conference. This attracted an article in the *Australian Defence Business Review*, vol. 30, No. 1, March 2011, pp. 40–2, 'Gate review for delayed MRH program'.

Reviews as a process to be invoked when triggered by indications that a project is in difficulties:

Where those triggers go off, that will trigger me writing to those companies, saying, 'We have an issue here; I want you to help us address it.' If the issue is serious enough, then it can lead to a gate review, an independent diagnostic analysis of the project, to provide advice and recommendations to me as the Minister for Defence Materiel and to the Minister for Defence on what action should be taken to rectify the problems that appear to be emerging in that project.<sup>22</sup>

**1.14** Ministers have now developed high expectations of Gate Reviews and perceptions of their value. For example, the Minister for Defence stated, in July 2011:

Government is expanding the use of the Gate Review process for mature projects to ensure that the desired operational capability is being delivered.

Gate Reviews commenced in 2009 for selected high value and highly complex projects and have proven very effective in the early identification and resolution of problems.

Gate reviews have now been expanded to apply to all major capability projects.<sup>23</sup>

### *Gate Reviews do not replace normal project management*

**1.15** Even though Gate Reviews have achieved particular prominence as a process that occurs at several points during a capability project lifecycle, it needs to be borne in mind that they are not the means by which projects are managed. They are a tool, newly-developed, intended to supplement Defence's regular management processes with an additional capacity to identify emerging problems early.

## **External views of the Gate Review Process**

**1.16** Two external views of Gate Reviews have come to the attention of the audit. The first expressed the view that DMO should have implemented such a

---

<sup>22</sup> House of Representatives Hansard, 14 June 2011, p. 5973.

<sup>23</sup> Speech by the Minister for Defence to the Australian Strategic Policy Institute, Canberra, 19 July 2011.



process at its inception.<sup>24</sup> The second, expressed by a Parliamentary committee, raised some concerns about the Independent Project Performance Office (IPPO), the organisational unit within DMO now managing Gate Reviews. When Defence informed the Parliament that the IPPO had been created, the Senate Foreign Affairs Defence and Trade Committee commented:

In relation to the Defence Materiel Organisation, whilst heartened by the establishment of the Independent Project Performance Office the committee is concerned that this not become another level of bureaucracy that hinders rather than helps the performance of DMO.<sup>25</sup>

## Organisational arrangements for DMO projects

**1.17** DMO manages its projects within two groups: the systems group and the program group. An organisational structure for DMO is shown in Figure 1.2 and a description of the hierarchy of project line management is set out in the box following the figure.

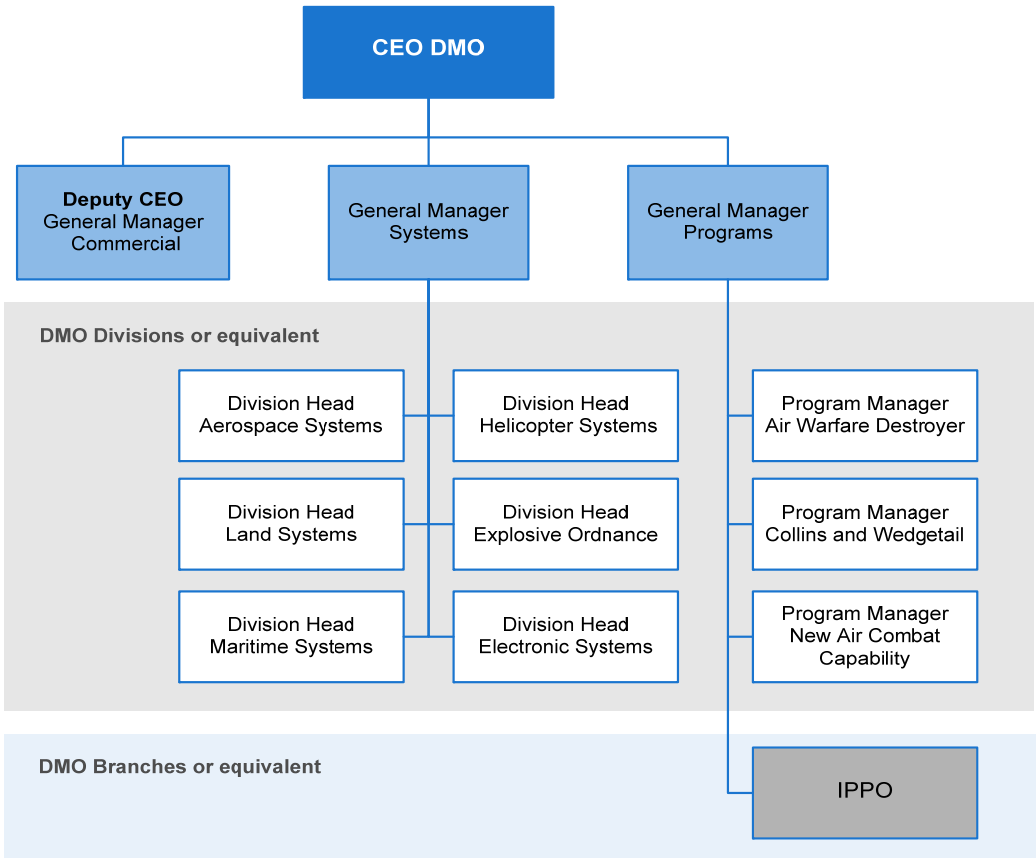
---

<sup>24</sup> Bushell, E. J. 2011, 'An Analysis of Defence Materiel Organisation Major Projects Management and What Needs to be Fixed', *Air Power Australia Analyses*, 23 February, available from <<http://www.ousairpower.net/APA-2011-02.html>> [accessed 24 January 2012].

<sup>25</sup> Senate Hansard, 27 February 2012, p. 58.

Figure 1.2

Basic organisational structure of DMO



Source: <[http://www.defence.gov.au/dmo/about/Leadership\\_Chart\\_May12.pdf](http://www.defence.gov.au/dmo/about/Leadership_Chart_May12.pdf)> [accessed 16 May 2012].

## Line management of projects in DMO

DMO has three General Managers, who report directly to the CEO. **General Manager Systems** is responsible for all acquisition and sustainment business conducted through DMO's divisions. **General Manager Programs** is responsible for the overall management of a number of major DMO Programs which require substantial program management experience and business acumen to be successfully managed. **General Manager Commercial** oversees commercial issues within DMO with the aim of developing improved acquisition strategies which better manage cost, commercial strategy and industry involvement.

Most of DMO's projects reside in DMO's Systems Group. Within this group there are six divisions, each managed by a **Division Head**. Each division contains between two and six branches which manage projects. Some divisions contain additional branches which manage the division's corporate or logistics functions. Each of the project branches is managed by a **Branch Head** and runs between one and twenty-one projects.

Within a branch, a project typically resides within a Systems Program Office (SPO), headed by a SPO Director, and is generally managed by a Project Director and a Project Manager. These project directors and managers have day-to-day responsibility for a project. SPO Directors and Branch Heads provide the first layer of senior manager oversight for a project.

In addition, DMO branches are also involved with projects still being developed by Defence's Capability Development Group. Each project branch is typically involved with two pre-second pass projects but can be involved with as many as six.

The Independent Project Performance Office (IPPO), the organisational unit within DMO that manages Gate Reviews, is a branch that, during the course of this audit reported directly to General Manager Programs. Since 27 April 2012, with the approval of Version 2.0 of the administrative policy for Gate Reviews, IPPO reports directly to the Deputy CEO DMO. This has remained unchanged in the most recent policy, approved on 3 May 2012.

## Independent Project Performance Office

**1.18** Gate Reviews are now the most prominent of DMO's assurance activities. DMO's former Major Program Control Branch managed Gate Reviews until July 2011 when this responsibility was assumed by the new Independent Project Performance Office (IPPO).

**1.19** IPPO is responsible for a range of related project assurance and monitoring processes, including the Early Indicators and Warnings (EI&W)

system which, when triggered for a project, may give rise to a Gate Review (Table 1.2).<sup>26</sup>

**Table 1.2**

**IPPO: Branch Directorates and Responsibilities**

Directorate	Responsibilities
Gate Reviews	Independent evaluation and assurance of major DMO projects at key stages across the project lifecycle.
Projects of Concern	Identification, oversight and assistance with remediation of troubled projects.
Early Indicators and Warnings	System design and implementation, assessment and analysis of project performance success criteria against key thresholds to identify issues early.
Cost Estimation and Analysis	Cost estimation assistance, analysis and assurance.

Source: DMO.

## Previous relevant ANAO performance audits and other relevant reviews

**1.20** Gate Reviews in Defence capital acquisition projects remain a comparatively recent and developing practice. Therefore, although there have been many performance audits of Defence capital acquisition projects (particularly audits focused on individual projects), none has previously focused on Gate Reviews.<sup>27</sup>

**1.21** There are other performance audits relevant to the current audit:

- ANAO Report No.22 2011–12, *Administration of the Gateway Review Process*, Department of Finance and Deregulation (tabled 7 February 2012); and
- concurrently with this audit, the ANAO is conducting a performance audit of Defence's implementation of the two-pass project approval process and associated aspects of capability development, primarily in CDG. This audit is due to be tabled later in 2012.

<sup>26</sup> A project which triggers EI&W thresholds is reviewed by the Director-General, IPPO, to determine if a Gate Review is required. See Answers to Questions on Notice, (Question No. 1441), Hansard, Senate, 9 February 2012.

<sup>27</sup> ANAO performance audits are available in electronic form here: <<http://www.anao.gov.au/Publications>> [accessed 13 January 2012].

**1.22** The ANAO also conducts, annually, an assurance review of selected major projects being managed by the DMO. The latest of these is the 2010–11 Major Projects Report (Report No.20 2011–12, tabled 20 December 2012).

**1.23** Also concurrent with this audit is a Parliamentary inquiry into Defence Procurement. The Senate Foreign Affairs Defence and Trade Committee is holding an inquiry into procurement procedures for Defence capital projects. The committee's preliminary report was tabled in December 2011. The preliminary report indicates that the committee intends to table its final report by 28 June 2012.

## Audit objective and scope

**1.24** The objective of the audit was to examine the effectiveness of DMO's implementation of its Gate Review process for major Defence capital acquisition projects.

### Audit scope

**1.25** The primary focus of the audit was to examine how effectively DMO conducts Gate Reviews. This involved:

- a broad review of Gate Reviews conducted since DMO first announced, in 2008, that it had implemented the program. This considers the management of Gate Reviews, how many such reviews have been undertaken and the growth in the program since inception in 2008;
- examining the development of administrative policy in the form of the first Defence Materiel Instruction (DMI) describing the process in December 2009, and the evolution of the DMI since that time;
- analysing the actual conduct of Gate Reviews, seeking to identify objectively-testable characteristics of an effective Gate Review process, and reviewing evidence for their realisation; and
- reviewing whether, as part of the overall management of its Gate Review program, DMO has considered how it ensures that matters identified in Gate Reviews are followed up, and the value and viability of the new process in the longer-term.

## Audit method

**1.26** The ANAO obtained records of Gate Reviews from DMO, including all such records held by IPPO, from the inception of Gate Reviews to 31 December

2011 (with the exception of those conducted for classified projects) for detailed analysis.

**1.27** The audit team attended eight Gate Reviews to observe what happens in practice during the Gate Review meetings themselves. These Gate Reviews were selected from those already scheduled to take place during the fieldwork phase of the audit to be representative by size, nature and phase of projects then in course.

**1.28** The audit team interviewed a range of relevant personnel, including:

- key DMO staff in the IPPO;
- a selection of experienced external members; and
- DMO executives.

**1.29** The audit team analysed successive editions (including several drafts) of the key administrative policy document, the Defence Materiel Instruction (DMI) relating to Gate Reviews. Two new editions of this DMI were authorised and promulgated towards the end of the audit.

**1.30** The team compiled three case studies of projects where Gate Reviews had been undertaken. Because projects are complex and each has unique features, these must be regarded as illustrative rather than representative.

## **Audit criteria**

**1.31** The high-level criteria for the audit were that:

- DMO effectively developed its administrative policy for conducting Gate Reviews;
- DMO effectively conducts Gate Reviews; and
- DMO monitors the costs and benefits of conducting Gate Reviews.

**1.32** The audit was conducted in accordance with the ANAO auditing standards at a cost to the ANAO of \$426,000.

## **Structure of this report**

**1.33** The remainder of this report is structured into three chapters:

- Chapter 2: *Implementation of Gate Reviews*—explains how DMO has implemented Gate Reviews, including the development of its administrative policy and the delivery of the process from its inception.

- Chapter 3: *Conduct of Gate Reviews*—considers what happens in the course of DMO Gate Reviews, and analyses the compliance of Gate Reviews with DMO's stated success factors for them. This chapter includes the case studies.
- Chapter 4: *DMO Monitoring of Gate Reviews*—examines how DMO monitors Gate Review conduct, their cost and the future practicality of DMO Gate Review administrative policy.

## 2. Implementation of Gate Reviews

---

*This chapter explains how DMO has implemented Gate Reviews, including the development of its administrative policy and the delivery of the process from its inception.*

### Examining the implementation of Gate Reviews

**2.1** The audit sought to examine the origins and purpose of DMO Gate Reviews to clarify why the organisation has introduced them and, in particular, to identify the benefits that management expected from these reviews. DMO has made numerous statements and claims in reports and oral evidence to Parliament about Gate Reviews and their implementation. Effective implementation requires the development of guidance, usually in the form of an administrative policy, and a system of monitoring and review to assess the effectiveness of the new arrangements.

**2.2** Therefore, in examining the implementation of Gate Reviews by DMO, the audit considered:

- the origins of the ‘Gate’ concept. DMO distinguishes its Gate Reviews from other approaches, such as the Commonwealth-wide *Gateway Review Process*;
- the inception of Gate Reviews in DMO. This has been linked by DMO to its desire to learn from a major acquisition project failure, that of the Super Seasprite helicopters, and to the Mortimer Review which suggested expansion of Gate Reviews in 2008;
- progress with Gate Review implementation in practice. Given the range of statements made about the implementation of Gate Reviews, the audit sought to establish the actual schedule, and the set of DMO projects included in the Gate Review program; and
- DMO’s development of administrative policy for conducting Gate Reviews. Gate Reviews have become DMO’s primary project assurance mechanism and it is important that they be performed in the manner expected and understood by senior management and Government.

**2.3** DMO’s monitoring and review of its Gate Review program—also an integral part of program management—is considered in Chapter 4.



## Origins of the 'gate' concept

**2.4** The underlying idea behind Gate Reviews can be traced to research and development in the private sector in the 1980s and is widely attributed to work by a Dr R. G. Cooper of Canada. The terms used to describe such reviews include 'Stage-Gates' and 'Gateway Reviews'. The Stage-Gate approach remains strongly identified with product innovation and the introduction of new products to the market by private companies.<sup>28</sup>

## Australian Government adoption of the Gateway Review Process

**2.5** The concept of reviewing the progress of projects at specified stages during a project lifecycle has become a widely accepted project management technique. In the Australian Government context, the technique is most widely represented by the Commonwealth-wide *Gateway Review Process* adopted by the Government in November 2005 and managed by the Department of Finance and Deregulation (Finance). This is a project assurance method that involves short, intensive reviews at up to six critical stages throughout a project's lifecycle by a team of reviewers not associated with the project. The Gateway Review Process is intended to provide an arm's-length assessment of the project against its specified objectives, and an early identification of areas requiring corrective action.<sup>29</sup>

**2.6** Research done by central agencies leading up to the Commonwealth's adoption of the Gateway Review Process showed that a common concern across governments and private sector organisations had been early detection of problems and risk associated with major projects. A range of named approaches were available, some with a proprietary element. That research also found a high degree of commonality among these approaches, particularly in the adoption of independent peer reviews.<sup>30</sup> Such reviews supported better

<sup>28</sup> The Australian Government's Public Sector Innovation website advises: 'There could be benefit in the use of a stage-gate system for large innovation processes, where an innovation must pass through approval gates before it can enter the next stage of the project. This can help contain the risk that an innovative idea will not deliver on what is predicted. By limiting the initial investment, the development of the proposal can happen before requiring authorisation for larger investments or greater risk exposure.' See: <<http://innovation.govspace.gov.au/tools/stage-gate-systems/>> [accessed 11 January 2012]. See also The Official Website of the Stage-Gate Product Innovation Process [accessed 11 January 2012].

<sup>29</sup> Department of Finance and Deregulation, Gateway Review Process, <<http://www.finance.gov.au/gateway/review-process.html>> [accessed 23 March 2012].

<sup>30</sup> A more recent review by the UK National Audit Office has reaffirmed that 'independent assurance is valued by stakeholders and, while difficult to quantify, there is strong evidence that such assurance has been beneficial to individual projects.' National Audit Office, Assurance for High Risk Projects, June 2010, p. 4.

project management, and gave higher levels of assurance to internal agency-based approaches, providing greater objectivity and avoiding checklist mentalities.<sup>31</sup>

**2.7** The Commonwealth adopted a method based directly on the Gateway Review Process, which the UK Office of Government Commerce (OGC) had developed as a proprietary method in 2001. When the Commonwealth introduced it, the technique had already been adopted in other Australian jurisdictions, including several state governments and a large city council.<sup>32</sup> The New Zealand Government has also adopted the method.<sup>33</sup>

## **Defence exemption from the Gateway Review Process**

**2.8** When the Australian Government introduced the Gateway Review Process in November 2005, it intended that the reviews would apply to new high-risk information technology projects valued at \$10 million or more, and infrastructure and other procurement projects worth \$20 million or more.<sup>34</sup> On the face of it, this would encompass major Defence acquisition projects.

**2.9** In the event, the Government explicitly excluded Defence acquisition projects from the Gateway Review Process because Defence was then

---

<sup>31</sup> The ANAO Better Practice Guide *Implementation of Programme and Policy Initiatives* includes reference to the Gateway Review Process in its advice.  
<[http://www.anao.gov.au/~media/Uploads/Documents/implementation\\_of\\_programme\\_and\\_policy\\_initiatives.pdf](http://www.anao.gov.au/~media/Uploads/Documents/implementation_of_programme_and_policy_initiatives.pdf)> [accessed 21 February 2012].

<sup>32</sup> State Government of Victoria Gateway Unit, <<http://www.gatewayreview.dtf.vic.gov.au/>> [accessed 21 February 2012]; NSW Government Procurement, Gateway Review System, <<http://www.nswprocurement.com.au/Government-Procurement-Frameworks/Gateway-Review.aspx>> [accessed 21 February 2012]; Queensland Government, Gateway Review Process, <<http://www.treasury.qld.gov.au/office/services/financial/gateway-review-process.shtml>> [accessed 21 February 2012]; Government of Western Australia, Department of Finance, Gateway, <<http://www.finance.wa.gov.au/cms/content.aspx?id=2113>> [accessed 21 February 2012];

<sup>33</sup> New Zealand Government, State Services Commission, Gateway Review Process, <<http://www.ssc.govt.nz/gateway>> [accessed 21 February 2012]. The Australian Strategic Policy Institute (ASPI) notes that Government approval of defence projects in New Zealand follows a similar pattern to that in Australia, with first pass replaced by 'initial gate approval' and second pass replaced by 'main-gate approval'. See ASPI, *How much information is enough? The disclosure of defence capability planning information*, December 2009, p. 32, <[http://www.aspi.org.au/dcp\\_review/](http://www.aspi.org.au/dcp_review/)> [accessed 23 March 2012].

<sup>34</sup> Currently, inclusion in the Gateway Review Process is triggered where a project has a total estimated cost of \$30 million or more for procurement or infrastructure; or an estimated total cost of \$30 million or more including an ICT component of at least \$10 million; or where a program is valued over \$50 million. <<http://www.finance.gov.au/gateway/review-process.html>> [accessed 12 January 2012].

implementing the agreed recommendations of the Kinnaird Review.<sup>35</sup> By excluding Defence acquisitions the Government intended to recognise those existing arrangements for major projects that give a consistent level of adherence to the principles of peer review and external scrutiny equivalent to the Gateway Review Process.

**2.10** Nevertheless, in July 2008, DMO officers advised a Parliamentary Committee that:

[The] Kinnaird [two-pass system] is an excellent system of providing government with a clear insight, a pre-first pass and second pass, but what had not happened in the past was a detailed executive review at particular critical times in the project. When we got to a point where it was clear that a project should be cancelled or it was clear that a project was going to fail or it needed to have some sort of executive intervention there was not a structured approach to actually doing that analysis. Now we have implemented that process. We will have a series of gates. It is very similar to the process that the large industry organisations do with their major projects.<sup>36</sup>

**2.11** Defence had introduced the two-pass system a few years before the Kinnaird Review. In his review, Kinnaird had recommended that this process be strengthened. The Government had accepted that recommendation so as to improve oversight of capability development. However, even after the strengthened two-pass system had been adopted, DMO officers believed a need remained for an additional form of analytical review of projects, especially at key decision points. This advice to the committee was the first public mention of DMO's decision to conduct Gate Reviews.

## **Gate Reviews are not a replication of the Gateway Review process**

**2.12** DMO advises that its Gate Review process is partly derived from the Finance-managed Gateway Review approach and partly from methods DMO

<sup>35</sup> The primary relevant recommendation of the Kinnaird Review concerned the operation of a rigorous two-pass system for new acquisitions. That relates primarily to the first part of the Defence acquisition process, where CDG has management responsibility (see Figure 1.1). See *Report of the Defence Procurement Review*, (Malcolm Kinnaird AO, chairman), August 2003, available at: <<http://www.defence.gov.au/publications/dpr180903.pdf>> [accessed 13 March 2012].

<sup>36</sup> Joint Standing Committee on Foreign Affairs, Defence and Trade, Review of the Defence Annual Report 2006–07, Committee Hansard, 10 July 2008, p. 10. See: <[http://www.aph.gov.au/Parliamentary\\_Business/Committees/House\\_of\\_Representatives\\_Committees?url=jfadt/defenceannualreport\\_2006\\_2007/hearings.htm](http://www.aph.gov.au/Parliamentary_Business/Committees/House_of_Representatives_Committees?url=jfadt/defenceannualreport_2006_2007/hearings.htm)> [accessed 23 March 2012].

executives observed earlier in private organisations.<sup>37,38</sup> This means that the detail of the process has been developed in-house, rather than being an implementation or imitation of an established or proprietary method.

**2.13** One key attribute that is common to the Gateway Review process and the DMO Gate Review program is a measure of independence of the review as an essential element for success. Gateway Reviews are conducted by a wholly independent team. DMO Gate Reviews are an internal assurance review which includes elements of independence such as the presence of external board members and, in some cases, a DMO chair who is not part of line management for that project.<sup>39</sup> In effect, the chair in these cases could be seen as a peer reviewer, albeit within the organisation. Senior DMO officers advised the ANAO that they believed that the quality and vitality in Gate Reviews flowed from the presence of independent, external members.

## **Extension of various gate processes within Defence**

**2.14** In May 2011, when the Minister for Defence announced that DMO would be expanding its use of Gate Reviews, he added that Defence would adopt Gate Reviews across other parts of the organisation:

All major projects managed by the Defence Materiel Organisation will now undergo at least one Gate Review per year. Gate Reviews will also be extended to other areas of Defence including Chief Information Officer Group and Defence Support Group.<sup>40</sup>

**2.15** The ANAO has seen subsequent indications that DMO was preparing to share its methodology with other Defence Groups (though not take

---

<sup>37</sup> A draft of the DMO policy instruction on Gate Reviews, circulated in May 2009, states: 'The Gateway Review Process was reviewed by the DMO in 2008 and found to have a positive effect on the delivery of major projects. A decision was therefore taken to use a similar process within the DMO to identify and control the level of risk on selected acquisition projects.'

<sup>38</sup> Oral evidence provided by the CEO DMO, to the Senate Foreign Affairs, Defence and Trade Committee inquiry into Defence Procurement, 7 October 2011. See: [http://www.aph.gov.au/Parliamentary\\_Business/Committees/Senate\\_Committees?url=fadt\\_ctte/procurement/hearings/index.htm](http://www.aph.gov.au/Parliamentary_Business/Committees/Senate_Committees?url=fadt_ctte/procurement/hearings/index.htm) p. 29 [accessed 22 March 2012]. In particular, DMO has referred to the Raytheon Company, a large American aerospace and defence manufacturer of weapons and military equipment, as a source of its approach to Gate Reviews.

<sup>39</sup> DMO has strengthened the requirement for independence of the chair in the latest policy instruction (DMI (Exec) 00-0-009, Version 1.0, 3 May 2012), which states 'the Chair must not be in the line management of the project under review.' Independence of the chair is discussed at paragraphs 3.54–56 of this report.

<sup>40</sup> Minister for Defence and Minister for Defence Materiel, Press release, 6 May 2011. See: <http://www.minister.defence.gov.au/2011/05/06/strategic-reform-program-2/> [accessed 18 February 2012].

responsibility for Defence Support Group (DSG) or Chief Information Officer Group (CIOG) Gate Reviews).

**2.16** However, rather than extending the application of DMO's Gate Review approach, CIOG has adopted the (Commonwealth-wide) Gateway Review Process for its major Centralised Processing Project.<sup>41</sup> DSG has devised its own approach following consultation with Finance, which it has called the 'Procurement Assurance Review (PAR) framework.'<sup>42</sup> PAR has some obvious differences from Gate Reviews such as the fact that the review comprises officials internal to Defence and external expertise 'can be used where required'. DMO has advised that although the approved policy does not mandate the use of external expertise, 'all nine PARs conducted so far [have] engaged at least one external expert.' On the face of it, these are distinct and separate processes, each managed to its own set of rules. As a consequence, DMO, DSG and CIOG are using three different project assurance processes, with some common elements.

## Conclusion—origins of the gate concept

**2.17** DMO has been exempted from the Commonwealth-wide Gateway Review process and has developed its own process for reviewing the progress of its major projects based on various methods used in other organisations. Other Groups within Defence have adopted a variety of gate-like processes which may be appropriate to their particular assurance requirements. It is unclear whether these arrangements meet the Minister for Defence's expectations, which were clearly based on DMO's Gate Review method.<sup>43</sup>

<sup>41</sup> Notably, the CIOG Centralised Processing project is 'following the Australian Government's Gateway Review Process and the ICT Two Pass Review Process for major ICT enabled projects.' See: <[http://www.defence.gov.au/cio/SRB/CP\\_index.htm](http://www.defence.gov.au/cio/SRB/CP_index.htm)> [accessed 21 February 2012].

<sup>42</sup> Defence advice of 17 February 2012. DSG advised that:

Extensive consultation with stakeholders from Defence and [Finance] was conducted and literature research was performed to identify successfully implemented and best practice procurement assurance processes to inform the design of the Procurement Assurance Review (PAR) framework. This included the identification and analysis of international, Australian state and Commonwealth government procurement 'Gateway' mechanisms including the DMO Gate Review. Prior to the finalisation of the PAR framework Defence met with [Finance] representatives to outline the process and to confirm that there were no issues with the proposed approach. [Finance] confirmed that the overall approach was consistent and aligned, but that the PAR framework and [Finance] Gateway process differ in their nature and scope. The PAR framework is focused on procurement outcomes, procurement process, compliance, probity and risk, whereas the [Finance] Gateway process focuses on project outcomes and delivery confidence.

<sup>43</sup> It should be noted that, regardless of the exact nature of the extension of 'Gate Reviews' to other areas of Defence, DMO's Gate Review process is the main focus of the current audit.

**2.18** However, for the purposes of considering DMO Gate Reviews, the origin of its variety of ‘gate’ and the intellectual history of this type of project management concept is less important than the rigour and purpose with which the process is applied in practice. The application of the technique will be considered further in Chapter 3, with particular reference to the essential characteristics of Gate Reviews.

## The inception of DMO Gate Reviews

**2.19** In seeking to understand the inception of Gate Reviews within DMO it is useful to draw on three elements in the recent history of the organisation:

- the Super Seasprite project, where Gate Reviews were first mentioned in the context of reducing the risk of such massive project failure and waste of resources in future;
- a predecessor assurance mechanism to Gate Reviews within DMO, the former Domain (or Materiel) Assurance Boards; and
- the *Defence Procurement and Sustainment Review* (Mortimer Review), which is perceived as having given impetus to Gate Reviews.

### The Super Seasprite project

**2.20** The use of Gate Reviews as an assurance activity and as a tool to improve project outcomes had been the subject of discussion within DMO since at least mid-2008. This included discussions held as part of the Mortimer Review between May and September 2008. The first public mention by DMO of its intention to adopt a Gate Review process was on 10 July 2008, in oral evidence provided to a Parliamentary committee.<sup>44</sup> The matter then under consideration was the *Super Seasprite* helicopter acquisition project.

---

<sup>44</sup> Joint Standing Committee on Foreign Affairs, Defence and Trade, Review of the Defence Annual Report 2006–07, *Committee Hansard*, 10 July 2008, p. 8.

## The Cancellation of the Super Seasprite Project

*Abstracted from ANAO, Audit Report No.41 2008–09, The Super Seasprite, 17 June 2009.*

Project Sea 1411 Phase 1 sought to acquire and support 14 Super Seasprite helicopters to be used on the Navy's ANZAC-class ships. The Government approved the Project in February 1996 with a budget of \$746 million (December 1995 prices). The final helicopter was due to be delivered in May 2002.

By mid-1999, the project's schedule was at substantial risk and under cost pressure. Between late 2003 and mid-2005 DMO provisionally accepted nine helicopters in an interim configuration. Navy operated these helicopters until March 2006 when concerns about the helicopters' Automatic Flight Control System led Navy to stop flying them. In May 2006, the ADF Airworthiness Authority withdrew the Australian Military Type Certificate for the helicopters.

In March 2008, the Government cancelled the project and DMO entered into a Deed of Settlement with the Prime Contractor, which terminated all contracts related to the project and put in place arrangements for the disposal of the helicopters, associated equipment and spares.

The Super Seasprite Project ran for more than 12 years and, at cancellation, the total expenditure exceeded \$1.4 billion. The ANAO concluded that:

The Project was complex in nature and long running, and accordingly the decision to cancel the Project cannot be attributed to any individual factor. Rather a range of issues escalated over time and ultimately led to the decision to cancel the Project. These issues included the emergence of technical issues in a range of areas, difficulties in defining requirements and evaluating compliance with the Prime Contract, changed airworthiness arrangements within Defence and incidents which brought an increased focus on aviation safety within the ADF.

**2.21** The Joint Standing Committee on Foreign Affairs, Defence and Trade questioned senior DMO managers about the cancellation of the Super Seasprite project. That project had delivered no capability whatsoever at a cost to the public of \$1.4 billion. In particular, the committee wanted to know what DMO was doing differently in the light of the problems experienced during the project which would prevent such an episode from recurring. Senior DMO officers responded that 'The gate review process and the appropriate external scrutiny of the project is a critical lesson for us.'<sup>45</sup>

<sup>45</sup> Joint Standing Committee on Foreign Affairs, Defence and Trade, Review of the Defence Annual Report 2006–07, *Committee Hansard*, 10 July 2008, p. 10.

**2.22** The CEO DMO advised the committee that the organisation was introducing Gate Reviews ‘based on lessons learnt from things like Seasprite. You cannot sit around and have a Seasprite happen and not think about how you would stop that happening again.’ At the same hearing, when asked whether the Gate Reviews were risk mitigation steps, DMO agreed but added:

It is also making sure that you do a really detailed analysis at those particular stages in the life of a project to ensure that you are getting that executive oversight and ensuring that you are actually testing to see whether something should be going or not, and the assumption should be at those stages if in fact there is something that is going to fail we declare it early and quickly to government, and we provide government and our stakeholders, the service chiefs, with that advice.

**2.23** Thus, DMO senior managers expected the Gate Review mechanism to identify difficulties a project may be facing where executive intervention might enable DMO to resolve those difficulties or there may be a need to draw matters to government attention. In summary, the essential features and benefits DMO expected of Gate Reviews were:

- external scrutiny;
- detailed, analytical, executive level review;
- risk mitigation; and
- a basis for advice to Government, when necessary.

### *The first two Gate Reviews*

**2.24** The *Defence Annual Report 2007–08* states that DMO ‘has implemented a program of Gate Reviews to examine projects at nine key milestones, or ‘gates’. Similarly, in the *Major Project Report 2007–08* DMO reported that they had ‘recently introduced a system of reviews at specific “Gates” in the capability lifecycle.’

**2.25** The first two Gate Reviews were held in 2008–09, on 4 August 2008 and 25 September 2008, shortly after DMO had given the evidence referred to above about the Super Seasprite project. The statement in the 2007–08 Annual Report that DMO ‘has implemented’ the program, at best reflects an apparently undocumented decision or resolution to do so, rather than being a report of it having happened in the year under review. The two 2008 Gate Reviews were strategic level reviews of projects in the higher acquisition categories (ACAT 1 and II projects: see below).



### Acquisition Category (ACAT level)

The Acquisition Category or ACAT level of a project reflects the complexity of managing that particular project. There are four ACAT levels, from ACAT I (most complex) to ACAT IV (least complex) which are determined using the DMO Acquisition Categorisation process. ACAT I and ACAT II projects are strategically important and are characterised by very high to high levels of complexity against six attributes:

- Acquisition Cost
- Project Management Complexity
- Schedule Complexity
- Technical Difficulty
- Operation and Support
- Commercial

ACAT III and IV projects are characterised by a moderate or lower level of strategic significance and complexity. The majority of projects in DMO are ACAT III projects. Each project is allocated an initial ACAT level upon entry into the Defence Capability Plan (DCP), and that level is periodically reviewed at key milestones across the project lifecycle.

Project ACAT levels are to be assessed at each Gate Review and, where necessary, a recommendation to change the ACAT level will be included in the review outcomes.<sup>46</sup>

**2.26** When DMO conducted its first two Gate Reviews it had not then developed or promulgated any administrative policy for their conduct for projects at any level. Both of the first two Gate Reviews were attended by senior officers and chaired by DMO's General Manager Systems. At the August Gate Review the chair stated that Gate Reviews were 'to provide a forum for executive review and decision making on projects at critical lifecycle milestones'. He also directed that 'Written reports would not be prepared for the review; instead the format for these reviews would take the form of an open forum discussion.'<sup>47</sup> This latter approach was to change substantially as Gate Review policy and practice developed.

<sup>46</sup> This directive was introduced in Draft DMI (A&S) 14-0-003 Version 2.0, July 2011 p. 5, and has been retained in subsequent versions, including the latest approved version, of the policy.

<sup>47</sup> Minutes of Gate Review meeting for SEA 1654 Ph 2A, August 2008, p. 1.

**2.27** DMO did not conduct another Gate Review for twelve months. Eighteen Gate Reviews were then held between September and December 2009. However, records for some of these Gate Reviews are incomplete and do not provide details of attendees or outcomes.

**2.28** DMO advised that, in their original conception, Gate Reviews had been intended to be essentially ‘in-house’ exercises with DMO staff and external experts—but no other Defence personnel—in attendance. However, following the reinvigoration of Gate Reviews by the Minister in May 2011, the Capability Managers (being primarily the Service Chiefs) expressed interest, as stakeholders, in having appropriate representatives attend.

### **A predecessor to Gate Reviews within DMO**

**2.29** There had been within DMO an identifiable predecessor assurance mechanism, at least in part, to Gate Reviews. Five Domain Assurance Boards (also known as ‘Materiel Assurance Boards’)<sup>48</sup> had functioned within DMO from 2002 ‘providing independent assurance to the CEO on the adequacy of the governance framework for each project and sustainment activity, and on risks involving schedules, costs, capability and sustainability.’<sup>49</sup>

**2.30** In December 2008, DMO undertook an internal review to ‘streamline and better focus assurance activities’.<sup>50</sup> Following the review, DMO decided to incorporate the function of Domain Assurance Boards into Gate Review Assurance Boards. Domain Assurance Boards continued until 30 June 2009, after which their activities were substantially subsumed within the operation of Gate Reviews. DMO records indicate that it had calculated that ceasing Domain Assurance Boards would save \$525 000 a year. It is not clear whether the prospective additional costs of running Gate Reviews had been calculated at this point.

**2.31** The audit team understands that the December 2008 internal review was conducted by DMO’s Chief Audit Executive to assess the volume and value that the then current assurance activities provided to the organisation. DMO had noticed what it described as ‘assurance fatigue’ during the pilot

---

<sup>48</sup> These comprised bodies such as the Aerospace Systems Domain Assurance Board, Maritime Systems Domain Assurance Board, Electronic and Weapons Systems Domain Assurance Board, and so on.

<sup>49</sup> Defence Annual Report 2006–07, p. 105.

<sup>50</sup> DMO, Minute to Minister, ‘Incorporation of DMO Domain Assurance Boards into Gate Review Assurance Boards’, 10 June 2009.

2007–08 Major Projects Report (MPR) program. DMO had observed this across numerous projects and business units, together with ‘a largely unstructured approach in the manner that the DMO’s broader assurance program is managed.’

**2.32** The audit team sought access to DMO’s internal review in the expectation that it would elaborate upon the rationale for the change from Domain Assurance Boards to Gate Review Assurance Boards and provide an explanation and evidence for the expected improvements of the new mechanism over the old. However, the documentation that DMO provided does not include any contemporaneous analysis that underpinned or further explains DMO’s decision to replace the Domain Assurance Boards with Gate Review Assurance Boards.

## The Mortimer Review and Gate Reviews

**2.33** After the publication of the Mortimer Review in September 2008, Gate Reviews became associated with that review.<sup>51</sup> In fact, none of Mortimer’s formal recommendations refer to Gate Reviews, though the report of the Review notes that DMO was implementing such reviews and, in its text, suggested that they be expanded:

DMO is presently implementing ‘gate reviews’ of projects to supplement the ‘red team’ and ‘deep dive’ reviews that have been operating over the past few years. These ‘gate reviews’ entail a formal review by senior managers and project personnel at key project milestones. The goal is to consider the project in sufficient detail to provide adequate assurance, and if necessary support, without overly disrupting the project office. The Review believes that the ‘gate review’ process should be expanded.<sup>52</sup>

**2.34** The Government’s response (May 2009) to the Mortimer Review recommendations did not mention Gate Reviews. That response did, however,

---

<sup>51</sup> This is likely to flow from numerous references in official literature referring to the expansion of Gate Reviews as ‘building on the recommendations of Kinnaird and Mortimer’. See, for example, (i) DMI (A&S) 14-0-003, 16 December 2009, para. 5: ‘In summary, applicable Mortimer report recommendations were that ... The Gate Review process should be expanded’; and (ii) Minister for Defence Materiel, Strategic Reform Program, Press Release 6 May 2011 (available from: <http://www.minister.defence.gov.au/2011/05/06/strategic-reform-program-2/>) [accessed 17 January 2012]).

<sup>52</sup> Mortimer, David, *Going to the Next Level the report of the Defence Procurement and Sustainment Review*, 2008, p. 35.

refer to DMO's 'current Assurance Boards', an apparent reference to the previous Domain Assurance Boards.

**2.35** At the time the report of the Mortimer Review was completed, DMO had held only the first of the two Gate Reviews referred to in paragraph 2.25. The Mortimer Review team had not attended this Gate Review and any specific, analytical basis of the Review's conviction that the process should be expanded is apparently undocumented.

## **Progress with Gate Review implementation<sup>53</sup>**

### **DMO's early approach to Gate Reviews**

**2.36** The first statement of a procedure describing DMO's Gate Review process appeared in the DMO part of the Defence Annual Report 2007–08 (October 2008):

The review board for the DMO's most complex high-value projects comprises its three General Managers, DMO executives and senior representatives from the Services and Capability Development Group. The projects selected for review at a particular gate will be based on a risk assessment.

**2.37** DMO outlined the objectives for Gate Reviews at each of the nine gates included in the process, described two levels at which reviews are conducted, strategic and complex—depending on the project's ACAT level—and described two types of Gate Reviews. These were an executive level review and a review conducted by the Project Management Stakeholder Group—to be conducted at certain gates within the process. DMO also described the make-up of a typical Gate Review board:

A strategic-level board would typically comprise the DMO General Managers as well as the DMO Executive Level legal and finance representatives, and the head of the relevant DMO Systems Division, and stakeholders such as Head of Capability Systems (CDG) and the relevant Deputy Chief of Service. A complex level board would comprise the same functional representatives but at one level lower.

### **Administrative policy for Gate Reviews was developed in 2009**

**2.38** In early 2009, the CEO DMO asked the Assurance Board secretariat team to provide support to Gate Reviews. However, at that point there was 'no

---

<sup>53</sup> A chronology of events in the development of Gate Reviews in DMO is set out in Appendix 2.

agreed Gate Review methodology and certainly no policy.’ DMO engaged a contractor to draft its Gate Review administrative policy (as a Defence Materiel Instruction, or ‘DMI’), which took the form of a ten-page draft circulated internally in May 2009.

**2.39** DMO established a Gate Review Directorate within its Major Program Control Branch in August 2009. The Branch’s scope included ‘enhancing the management of early project phases, ensuring that comprehensive project proposals come to Government for decision, and providing oversight of the gate review process’. The first Gate Review, conducted by the Branch in accordance with the draft Gate Review policy was held in September 2009.

**2.40** The CEO DMO approved Defence Materiel Instruction (DMI) 14-0-003 *Gate Reviews of DMO Acquisition Projects*, in December 2009.<sup>54</sup> That policy allocated responsibility for managing Gate Reviews to Major Program Control Branch, with some qualifications:

Director General Major Program Control (DGMPC) is responsible for management of the Gate Review process, coordinating Gate Reviews on ACAT I and II projects, conducting independent reviews, participating in ACAT III and IV project Gate Reviews and reviewing GRAB findings for all projects.

**2.41** Major Program Control Branch circulated a copy of the draft Gate Review policy to DMO’s divisions in September 2009, together with a Gate Review forward work program which included nominal dates for each Gate Review in the program. In response to this email, and in the absence of any explicit direction from Major Program Control Branch, individual DMO divisions started conducting Gate Reviews of projects, but not necessarily the projects listed in the forward work program.

**2.42** For the remainder of 2009 DMO held 18 Gate Reviews, 15 of which were coordinated by the DMO divisions. This period of Gate Reviews was characterised by a lack of centralised record keeping and, most Gate Reviews held were not informed by a preliminary analysis of the project under review, nor did they involve external members on the Gate Review Assurance Boards, features which would later become integral to the success of Gate Reviews.

---

<sup>54</sup> This DMI remained the approved policy until 27 April 2012 when Version 2.0 was approved although two draft amendments were released in July and November 2011 which attempted to articulate ongoing changes to policy and process. As of 3 May 2012, the current approved policy for the conduct of DMO Gate Reviews is DMI (EXEC) 00-0-009.

**2.43** Internal DMO memoranda from the Gate Review Directorate reflect a view, in November 2009, that Gate Reviews ‘had been running for about two months’.<sup>55</sup> This appears to refer to Gate Reviews that had largely been managed by DMO’s divisions and were subject to the draft policy.

**2.44** In 2010 the number of Gate Reviews increased considerably with a total of 57 held; 36 at divisional level and 21 managed centrally by the Gate Review Directorate in the Major Program Control Branch.

## **Ministerial action invigorated Gate Reviews**

**2.45** DMO’s Gate Review program was reinvigorated following a ministerial announcement on 6 May 2011.<sup>56</sup> The Ministers for Defence and Defence Materiel announced that Defence would accelerate the implementation of all outstanding Mortimer recommendations agreed by Government, as a matter of priority. They would implement a number of reforms aimed at improving project management and identifying problems with projects earlier. DMO would expand the Gate Review program to ensure that all major projects managed by DMO would undergo at least one Gate Review each year.

### *Mortimer’s recommendation for creation of the IPPO*

**2.46** The Mortimer Review had recommended that DMO establish an independent Project Performance Office to review projects and help project teams to solve problems. The Government agreed to this recommendation in May 2009, as part of its wider response to the Mortimer Review.

**2.47** Two years later, in their May 2011 announcement, the Ministers for Defence and Defence Materiel announced that they had asked Defence to accelerate the implementation of the agreed recommendations of the Mortimer Review as a matter of priority, making specific reference to the implementation of an Independent Project Performance Office (IPPO) within DMO.

**2.48** In June 2011 the Ministers for Defence and Defence Materiel further announced that IPPO, as recommended by the Mortimer Review in 2008,

---

<sup>55</sup> DMO, Minutes prepared by Director, Gate Reviews, proposing the engagement of additional external members for the Gate Review Assurance Boards, November and December 2009. This perspective on the history of Gate Reviews in DMO does not take account of the two Gate Reviews held in August and September 2008.

<sup>56</sup> An internal DMO meeting concerned with evaluating the Gate Review program and involving senior management noted in mid-2011, that ‘Ministerial direction has led to the expansion of the program.’ (DMO, Evaluation of the Gate Review Program, 9 June 2011, Outcomes.)

would begin operating from 1 July 2011. The Ministers announced that IPPO would:

- conduct Gate Reviews of all major Defence capital acquisition projects;
- implement the new Early Indicator and Warning system;
- reform the Projects of Concern process and oversee the remediation of all Projects of Concern;
- implement a 'lessons learned' process as recommended by the Mortimer Review; and
- assist project teams to develop more robust cost and schedule information and to improve the accuracy of this information when it is provided to Government.

**2.49** The Ministers also announced that an additional 14 independent experts with substantial project management and commercial experience would be contracted by Defence to participate on Gate Review Assurance Boards and that this would ensure that there were 'at least two external members on every significant gate review board.'

**2.50** According to a revised draft of DMO's Gate Review policy that appeared at this time: 'Following a limited implementation during 2010 the decision was taken to strengthen the process and expand it to all major projects managed by the DMO.' In response to a request for a copy of that decision and any supporting documentation, DMO advised:

In mid Dec 10 MINDEF [the Minister for Defence] verbally advised CEO DMO that he wanted the Gate Reviews to be expanded to all projects' 'DG Major Program Control ... was verbally directed to commence the necessary planning and to continue to grow the program'.

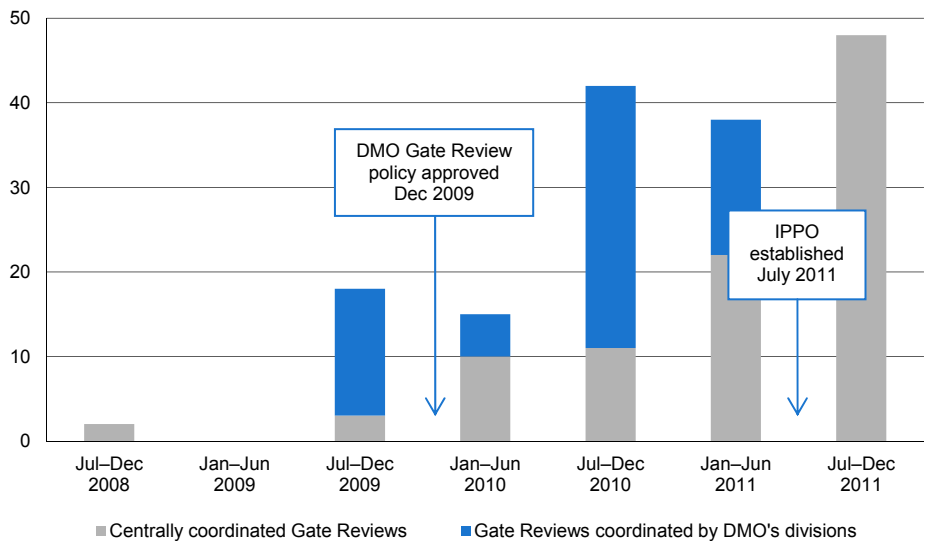
**2.51** The CEO DMO approved IPPO's creation on 15 June 2011 and it was established on 1 July 2011, based on the former DMO Major Program Control Branch. Subsequently, IPPO has taken responsibility for managing DMO Gate Reviews and a range of other related functions. IPPO is a branch comprising four directorates whose collective aim is to provide independent project performance analysis and advice to the government on major acquisition projects (Table 1.2).

## Centralising Gate Review management

2.52 Centralising the management of Gate Reviews within IPPO has standardised processes and improved record keeping, and is consistent with the original DMO Gate Review administrative policy. Also consistent with this policy is the requirement for every major capital project to undergo periodic Gate Reviews, approximately annually, associated with major project milestones. However, the number and frequency of Gate Reviews held to date has fallen short of that envisaged by this policy.

Figure 2.1

Number of DMO Gate Reviews held, July 2008 – December 2011



Source: ANAO, based on data supplied by DMO.

## Administrative policy for Gate Reviews

2.53 The discussion to this point has mentioned that, in May 2009, DMO commenced developing an administrative policy to support the conduct of Gate Reviews. The first Defence Materiel Instruction (DMI), approved in December 2009, remained the current approved policy until 27 April 2012. During the intervening period two revisions were drafted by IPPO, in July 2011 and November 2011. Neither of these instructions was approved before the release of an approved Version 2.0 on 27 April 2012, which was



superseded on 3 May by DMI (EXEC) 00-0-009 Version 1.0.<sup>57</sup> Nevertheless, IPPO's advice to the ANAO is that the July 2011 draft has been the policy observed in practice during most of the audit field work phase and that the drafts were an attempt to articulate and document actual current practice.

**2.54** The ANAO examined these various versions of the policy to help to understand the direction of thinking in the DMO about how Gate Reviews should be managed.

### **Defence Materiel Instruction (DMI) Acquisition & Sustainment (A&S) 14-0-003 Version 1.0, 16 December 2009**

**2.55** As stated earlier, DMO started to conduct Gate Reviews in 2008 in the absence of a formal administrative policy and continued to do so throughout 2009. In December 2009 the DMO Gate Reviews were formally implemented through a DMO written instruction. Version 1.0 of the relevant Defence Materiel Instruction (DMI 14-0-003) was available on the DMO's Quality Environmental Management System (QEMS)<sup>58</sup> and, therefore, remained formally the current policy until near the end of the audit.

**2.56** This policy outlined the background and proposed outcomes of the Gate Review process, provided six policy principles, and described nine milestone-related Gates, three of which were mandatory. The Business Process Owner for this policy was General Manager, Programs.

**2.57** Effectively, the original policy of December 2009 applied to all major capital projects within, or proposed for inclusion within, the Defence Capability Plan, including accelerated acquisition projects. This included not only the major acquisition projects under DMO management, estimated to number about 180 active projects, but also those major acquisition proposals still passing through the two-pass approval process, under CDG control, estimated to number between 20 and 40 at any one time.

---

<sup>57</sup> DMO's latest Gate Review DMI differs from the previous versions in that it is managed by the DMO Executive rather than Acquisition and Sustainment, see para 2.66).

<sup>58</sup> QEMS is the suite of software tools which support the DMO's Quality Management System enabling access to DMO's business processes, procedures, policies, guidance, tools and templates.

## **Draft DMI (A&S) 14-0-003, Version 2.0, July 2011**

**2.58** Draft version 2.0 dated July 2011 has not been made available on QEMS. It was, until November 2011 available on the IPPO intranet website and, DMO advises, was applicable in practice until November 2011.

**2.59** Compared with the original policy, this revision substantially increased the rigour required in the conduct of Gate Reviews in that it:

- replaced six Policy Principles with eight Policy Directives;
- clarified the responsibilities;
- specified the inclusion of at least two external board members with extensive Defence or commercial experience on each board;
- increased the total number of milestone related gates from nine to twelve;
- increased the number of mandatory gates from three to six; and
- listed nine factors to be observed for successful Gate Reviews.

**2.60** This version of the policy had been awaiting approval since July 2011 by the Business Process Owner, General Manager Systems when it was replaced by a further update.

**2.61** DMO has also been developing detailed procedures for the conduct of Gate Reviews. This includes specific template documents for each of the mandatory Gate Reviews, Agendum Paper, Outcomes, Actions and Observation Records. These templates are available on the IPPO intranet website and personnel involved in the management and conduct of Gate Reviews have been informed on their use in workshops conducted by IPPO.

## **Draft DMI (A&S) 14-0-003, Version 2.0, November 2011**

**2.62** An amended draft version 2.0 became available on the IPPO website in November 2011. Amendments incorporated into this version included:

- the position of ‘Senior Executive’ was introduced as the person to whom the chair makes a formal recommendation following a Gate Review;
- inclusion of the word ‘normally’ in one of the policy directives (Policy Directive 4), the effect of which is to indicate that external members are no longer a mandatory requirement;

- revision of Policy Directive 5 relating to the preliminary analysis before the conduct of the Gate Review. This states that IPPO will appoint project analysts subject to resource availability and according to a project's risk level. This was previously dependent on ACAT level;
- revision of Policy Directive 7 relating to line management responsibilities clarifies the acceptance/rejection process for actions arising from the Gate Review; and
- responsibility for implementation of actions is assigned to the responsible line manager in lieu of the DMO Project Manager.

**2.63** In explaining the latest amendments DMO advised that it was:

largely an administrative change that made minor refinements reflecting evolution of the process and organisational arrangements since the July draft. There was no fundamental change to the Gate Review methodology in this update.

**2.64** ANAO's assessment of the changes made in the November 2011 draft is that they could facilitate a more profound change in policy, particularly through the removal of the mandatory requirement for external board members and by making the requirement for a preliminary analysis dependent on resource availability in lieu of the ACAT level of the project under review. This potential weakening of policy may be contradictory to senior executive expectations – in October 2011 CEO DMO told a Senate Committee 'I do not want the quality of the gate reviews to deteriorate. We must not allow it to fall into just a process.'

### **DMI (A&S)14-0-003, Version 2, 27 April 2012**

**2.65** On 30 April 2012, DMO provided ANAO with a copy of the latest amendment, which had been approved on 27 April 2012. This version differs from the last draft amendment in the following areas:

- replacement of the mandatory Defence Capability Plan (DCP) and Options Review Committee (ORC) Gates with the non-mandatory Project Initiation (PI) and Options Definition (OD) Gates;
- removal of the mandatory requirement to conduct a Gate Review for each project every year: 'Projects will normally be reviewed on an annual basis from First Pass to Final Materiel Release (FMR)';

- deputy CEO replaces General Manager Programs as the position responsible for the independence of the Gate Review process and its implementation;
- removal of the requirement to consider materiel system safety, environment and Occupational Health and Safety at every Gate Review;
- strengthening of the requirement for independence of the chair: 'unless otherwise agreed by DCEO, the Chair must not be in the line management of the project under review';
- requirements for external members amended to ensure 'Each Board will include at least one, and normally two External Board Members.'; and
- the requirement for Director General Governance and Assurance (DGGA) to audit actions arising from Gate Reviews has been amended to allow for DGGA to audit Divisional action closure processes.

## **DMI (EXEC) 00-0-009, Version 1.0, 3 May 2012**

**2.66** On 3 May 2012 an amended Gate Review policy was approved by CEO DMO. This instruction differs from the previous one in that it is managed by the DMO Executive in lieu of Acquisition and Sustainment, and the relevant business process owner is CEO DMO in lieu of General Manager Systems.

**2.67** ANAO did not assess DMO's compliance with the two most recent policy amendments as the Gate Reviews considered by ANAO occurred before these amendments were released. However, ANAO noted that the more significant changes in these latest amendments address strengthening the independence of the chair, reducing the requirement for each project to undergo a Gate Review every year and confirming the requirement for there to be at least one external member on each Gate Review Board.

## **Conclusion**

**2.68** DMO's development of its Gate Review policy and its implementation of the program has been slow. DMO's testimony to the Parliament, in July 2008, that it would implement Gate Reviews was made in the context of preventing a large and expensive project failure. However, those claims were made well in advance of full implementation. Only two Gate Reviews were held in 2008, some months after DMO officers stated that they had

‘implemented the process’ and no further Gate Reviews were held for a year. DMO formally released its administrative policy for Gate Reviews in December 2009. It is not clear why, with a pressing need to act, implementation has taken several years.<sup>59</sup>

**2.69** In response to a ministerial announcement reinvigorating the process, DMO established IPPO in July 2011 and centralised management for Gate Reviews within IPPO. Only then did Gate Reviews begin to resemble the reviews envisaged in DMO’s administrative policy. For some time, between July 2011 and April 2012 Gate Reviews were conducted under policy amendments which remained in draft.<sup>60</sup> Towards the end of the audit, on 27 April 2012, DMO approved an amended policy which was further revised on 3 May 2012. That policy strengthened two important principles: the requirement for independence of the chair and presence of external board members.

---

<sup>59</sup> DMO has advised that effecting fundamental change in a large and complex organisation such as DMO is a time consuming and complex process. DMO contends that the long implementation process reflects a measured approach, incorporating lessons learned during the process.

<sup>60</sup> DMO has advised that this recognises the developmental nature of the Gate Review program, which required progressive policy development.

## 3. Conduct of Gate Reviews

---

*This chapter discusses the conduct of Gate Reviews in DMO. In particular, it considers the essential characteristics of Gate Reviews and analyses whether the Gate Reviews conducted by DMO comply with these characteristics.*

### Introduction

**3.1** DMO first mentioned its intention to adopt a Gate Review process, based on the lessons it learned from the failed Seasprite project, in July 2008. DMO envisaged that this process would provide external scrutiny of projects and enable senior management to intervene in troubled projects at critical times. This chapter considers how effectively DMO conducts Gate Reviews, and to what extent Gate Reviews accord with these two intended purposes.

**3.2** To analyse the conduct of Gate Reviews ANAO:

- distilled three testable ‘essential characteristics’ of Gate Reviews from DMO’s administrative policy for Gate Reviews and publicly reported statements, and from what represents a reasonable expectation in relation to the success of such a policy;
- attended a number of Gate Reviews to gain a general understanding of how the reviews were conducted;
- interviewed personnel involved in the Gate Review program; and
- analysed the records held by the Independent Project Performance Office (IPPO) for all Gate Reviews held before 31 December 2011 to:
  - broadly assess the compliance of the reviews against these three testable characteristics; and
  - develop detailed case studies of the effectiveness of the Gate Review process for three projects that had, on the face of it, been subjected to more than one Gate Review.

**3.3** As discussed in Chapter 2, given the pressing need for DMO to have a process to escalate troubled projects, the organisation’s progress towards developing and implementing its Gate Review policy has been slow. DMO first approved its Gate Review policy in December 2009, 18 months after announcing its intention to adopt such a policy, and it brought together the management of all Gate Reviews into one central area in July 2011.

**3.4** Between July 2008 and 31 December 2011 there were three distinct periods in DMO's development and implementation of Gate Reviews during which DMO's management and conduct of Gate Reviews was markedly different. These periods were:

- the year following DMO's announcement, in July 2008, of its intention to conduct Gate Reviews, during which DMO conducted two Gate Reviews;
- the two years between August 2009 and July 2011, during which DMO established a Gate Review Directorate and first developed administrative policy for conducting Gate Reviews; and
- the first six months after DMO established IPPO, and consolidated the management of all Gate Reviews within IPPO.

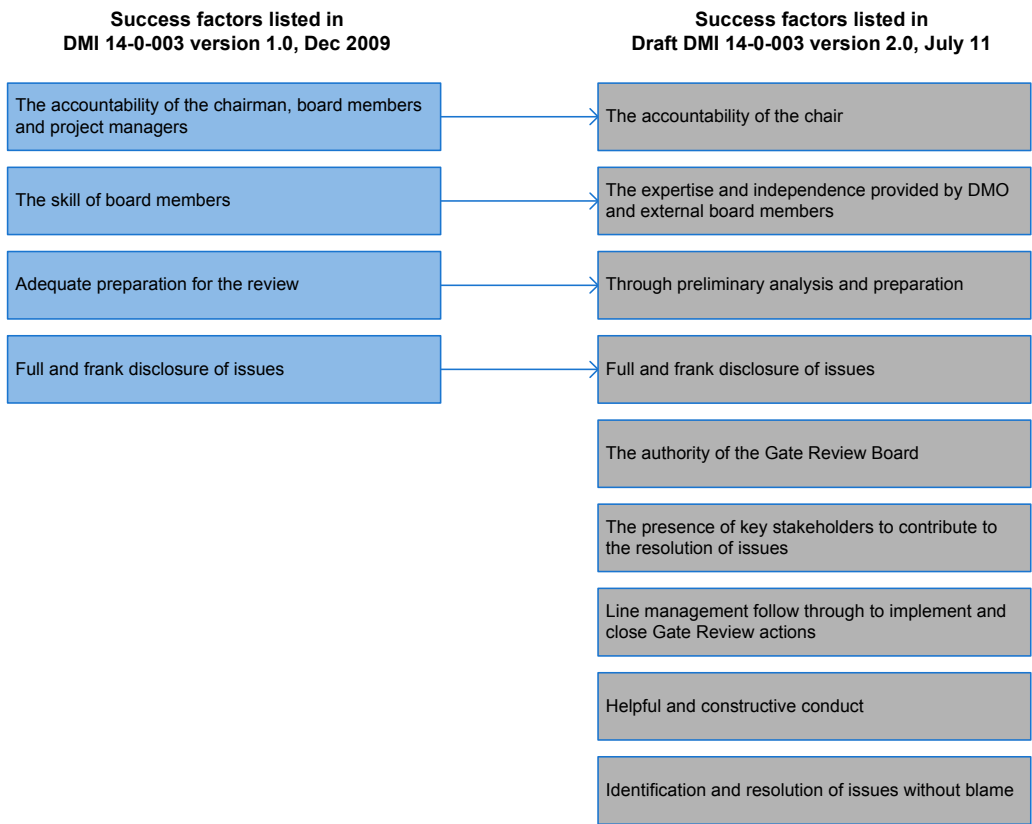
**3.5** To be able to comment meaningfully on the conduct of DMO's Gate Review program, ANAO has considered these three periods separately, analysing the compliance of the Gate Reviews held in each period with the essential characteristics.

## **Essential characteristics of Gate Reviews**

**3.6** DMO listed what it characterises as success factors for Gate Reviews in its original December 2009 Gate Review policy. It developed and extended this list from four to nine success factors in the July 2011 updated draft of this policy (Figure 3.1). This list remained unchanged in the November 2011 iteration of the draft policy, and has undergone minor changes in the recent policy amendments dated 27 April and 3 May 2012.

Figure 3.1

Attributes considered by DMO to contribute to successful Gate Reviews



Source: Defence Materiel Instruction (A&S) 14-0-003 *Gate Reviews for DMO projects*, version 1.0, 16 December 2009 and draft version 2.0, dated July 2011.

3.7 In both these lists of success factors DMO has included some factors which are objective and measurable, such as *thorough preliminary analysis and preparation*, and others which are difficult to measure as they describe DMO’s expectations for the behaviour of participants or the conduct of the board, such as *full and frank disclosure of issues*.

3.8 Furthermore, there are links between some of the measurable success factors and the more subjective expectations for the behaviour of Gate Review participants or the conduct of the board. For example, if DMO conducts a thorough preliminary analysis of the project under review before the Gate Review meeting this will contribute to the extent to which the Gate Review Assurance Board can draw out a full and frank disclosure of issues during the meeting. Similarly, the authority of the Gate Review Assurance Board will



encourage key stakeholders to attend Gate Review meetings and line management to implement and close action items resulting from the review.

**3.9** Taking the more comprehensive list of success factors from DMO's draft July 2011 Gate Review policy, ANAO analysed DMO's records of Gate Reviews held before 31 December 2011 to determine whether these records contained sufficient information to assess DMO's achievement against each success factor. Table 3.1 lists the records DMO typically maintains for Gate Reviews that are relevant to measuring each success factor, and the constraints ANAO found in measuring them.

**Table 3.1**

**Measuring DMO's success factors for Gate Reviews**

Success factor	Relevant DMO records available	Constraints on measuring success factor
The accountability of the Chair	<ul style="list-style-type: none"> <li>• DMO Gate Review policy confers accountability on chair.</li> <li>• Records of the outcomes of each Gate Review Assurance Board meeting are signed by the chair.</li> <li>• DMO staff management policies.</li> </ul>	Practical application of policies relating to the accountability of the chair is not readily observable.
The expertise and independence provided by DMO and external members	<ul style="list-style-type: none"> <li>• Records of the outcomes of each Gate Review Assurance Board meeting are signed by the chair.</li> <li>• Letters of Engagement between DMO and each independent external member.</li> </ul>	<ul style="list-style-type: none"> <li>• DMO's records of Gate Review meetings typically included a list of who was invited to the meeting but <i>not</i> who attended.</li> <li>• Difficult for ANAO to determine the appropriateness of the expertise of board members.</li> </ul>
Thorough preliminary analysis and preparation	The findings from an analysis of the project, conducted before the Gate Review by someone not involved with the project, are typically documented in an agenda paper.	Difficult for ANAO to determine the thoroughness of any preliminary analysis of a project undertaken, particularly if it is not well documented.
Full and frank disclosure of issues	Records of the outcomes of each Gate Review Assurance Board meeting.	Subjective expectation of behaviour, observable but difficult to measure.

Success factor	Relevant DMO records available	Constraints on measuring success factor
The authority of the Gate Review Assurance Board	<ul style="list-style-type: none"> <li>DMO Gate Review policy confers authority on the Gate Review Assurance Board.</li> <li>Records of the outcomes of each Gate Review Assurance Board meeting are signed by the chair.</li> <li>Letters of Engagement between DMO and each independent external member.</li> </ul>	Authority of the Board may be related to managerial seniority of chair and its other members and presence of independent external members, but difficult to measure directly.
The presence of key stakeholders to contribute to resolution of issues	No relevant records maintained by DMO.	DMO's records of Gate Review meetings typically included a list of who was invited to the meeting but <i>not</i> who attended.
Line management follow-through to implement and close Gate Review actions	Records of outcomes of each Gate Review Assurance Board meeting signed by chair.	DMO does not currently have a centralised process for following up on whether action items from Gate Reviews have been implemented or not (see Chapter 4).
Helpful and constructive conduct	No relevant records maintained by DMO.	Subjective expectation of meeting conduct, observable but not directly measurable.
Identification and resolution of issues without blame	Identification and resolution of issues recorded in agenda paper and meeting outcomes respectively.	Blame attribution not reliably observable or directly measurable.

Source: ANAO analysis of DMO draft policy for the conduct of Gate Reviews, July 2011 and DMO Gate Review records.

**3.10** Given the constraints listed in Table 3.1 ANAO identified the following three characteristics with which to broadly analyse DMO's conduct of Gate Reviews:

- the presence of a documented analysis of the project (referred to as a 'preliminary analysis'), conducted before the Gate Review by someone not involved with the project;

- the presence and number of external members on a Gate Review Assurance Board; and
- the seniority of the Gate Review Assurance Board chair and whether or not they had some responsibility for, or accountability for the project under review.

**3.11** Together, these form the essential characteristics of Gate Reviews. They are related to three of DMO's success factors (which are highlighted in Table 3.1) but they measure only aspects of these success factors: they do not measure them completely. The related success factors are:

- Thorough preliminary analysis and preparation—*evaluated by ANAO through the presence of a documented preliminary analysis;*
- The expertise and independence provided by DMO and external members—*evaluated by ANAO through the presence and number of external members on the Gate Review Assurance Board and whether or not the chair of the board had some responsibility, or accountability for the project under review; and*
- The authority of the Gate Review Assurance Board—*evaluated by ANAO through consideration of the managerial seniority of the Gate Review Assurance Board chair.*

## The conduct of Gate Reviews observed by ANAO

**3.12** ANAO attended eight Gate Reviews, conducted in Canberra and Melbourne, between 21 September and 9 November 2011. A list of the Gate Reviews attended and some of the attributes of these reviews is included in Appendix 3. For all eight Gate Reviews, IPPO had selected the members of the Gate Review Assurance Board, scheduled the board meeting and arranged for a preliminary analysis of the status of the project to be conducted by someone not involved with the project.

## Limitations of observing Gate Reviews

**3.13** There are limitations on what can be drawn from observing meetings. There is always a risk that the behaviour of participants will change under scrutiny, particularly by an external auditor. However, given that Gate Reviews are themselves a relatively new and vigorous form of scrutiny, the risk is minimal in this case.

**3.14** A second limitation is that the audit team could only attend a small sample of meetings which may not necessarily be representative of all Gate Reviews. However, the audit team did attend a wide cross-section of different types of Gate Reviews for projects of various ACAT levels and at different gates. As the team's observations were substantially consistent across the meetings attended, the risk that what was observed deviates significantly from the generality of Gate Reviews is low.

## **Observations<sup>61</sup>**

**3.15** DMO's Gate Review policy provides IPPO with clear guidance as to who should normally be included on Gate Review Assurance Boards, including the different areas of DMO to be represented, the seniority of board members and the inclusion of external members. The policy also specifies the seniority of the chair for different types of Gate Reviews. Within the confines of this guidance, for the eight Gate Reviews that the ANAO observed, IPPO undertook the important task of selecting the chair and the board's external members. The latter were drawn from a panel established by IPPO.

**3.16** Once IPPO had selected the board and scheduled the meeting, it then assigned one or both of the board's external members and, in some cases where resources permitted, an IPPO project analyst as well, to undertake a preliminary analysis of the project under review. To accord with the purpose of Gate Reviews providing a degree of external scrutiny, it is necessary that this preliminary analysis is undertaken by someone not involved with the project.

**3.17** This work involved reviewing existing project documents, interviewing project staff and relevant stakeholders and led, in each case, to the development of an 'agendum paper' for consideration by the Gate Review Assurance Board. Each such paper provided an analysis of the project's history and current status, set out the major issues facing the project's progress, and generally contained some suggested points which the chair could raise for discussion during the Gate Review meeting. The papers prepared for each meeting attended by ANAO were, on the face of it, thorough and comprehensive.

---

<sup>61</sup> A description of arrangements for conducting a Gate Review has been set out in Hansard in an answer to a question on notice in February 2012. The audit team found the observed practice to be consistent with this description. See: Answer to question on notice, 'Defence: Early Indicators and Warning System (Question No. 1441)', *Senate Hansard*, 9 February 2012.

**3.18** A few days before each Gate Review meeting IPPO distributed a briefing pack to the board members that contained a meeting agenda; a list of invitees, including board members and secretariat; an agendum paper; and other relevant project documents. IPPO also organised a 'pre-brief' meeting where the external board member or members (and, when they were involved, the IPPO project analyst) briefed the chair and other board members on the findings contained in the agendum paper. At times, this pre-brief was the first time some board members had considered the agendum paper and the issues facing the project.

**3.19** The Gate Review meetings were well attended: all board members attended, and there was generally appropriate representation by the project team and key stakeholders. The only exception to this was for the pre-solicitation Gate Review of the AIR 5431 Ph 1 *Deployable Air Traffic Management and Control Systems* project. The board for this Gate Review noted that the review would have benefited from the presence of a representative from Defence's Capability Development Group and a senior line manager of the project.

**3.20** The conduct of each Gate Review meeting appeared open, honest and collegiate, and focused on the identification and resolution of problems. Board members frequently posed challenging questions to the project team, often informed by the preliminary analysis. In no case were attempts to lay blame observed. Prima facie, the meetings provided an opportunity both for senior staff to seek insight into project progress and also to allow project staff to bring to attention difficult issues they had been grappling with. The level of board and stakeholder representation was generally sufficient for decisions to be made.

**3.21** At the end of each meeting the Gate Review Assurance Board held a closed session, involving just the board members and the secretariat, to develop proposed action items and recommendations. The board also assigned responsibility for the action items and a date by which they needed to be completed. In the days after the meeting, IPPO drafted an outcomes paper which included these action items and recommendations. IPPO distributed this paper to board members and then to the chair for approval. Once the outcomes were signed by the chair, IPPO then sent them to the General Manager Systems, who is the senior line manager for the eight projects reviewed, for either her noting, support or agreement. In addition, for six of the Gate Reviews attended, IPPO also sent the outcomes to CEO DMO for agreement

(see Appendix 3 for details). All outcomes papers were signed by the chair and other designated signatories within eight weeks of the date of the Gate Review. IPPO has advised that a system of follow-up for signatures is now in place which aims to ensure that it takes a maximum of fifteen working days to obtain all required signatures.

## Interviews with Gate Review personnel

**3.22** ANAO interviewed a range of people who had participated in the conduct of several Gate Reviews and had experience of the program over a period of at least six months. These individuals provided their personal viewpoint on the conduct of Gate Reviews based on their experience. All those interviewed agreed that the Gate Review program was a worthwhile exercise which had the potential to identify problems and reduce risk.

**3.23** All agreed that the most important aspect of the program is the preliminary analysis, although several noted that this is a resource-intensive activity which requires sufficient time to complete well. One interviewee gave an example where the analyst had only two days in which to conduct the analysis and compile the agendum paper. He advised ANAO that this detracted from the quality of the information that was provided. Board members also need to receive the agendum paper in sufficient time to familiarise themselves with the issues raised and, thereby, enable them to make a useful contribution to the review.

**3.24** There was also general agreement on the value of external members who can focus on the 'big picture' and are in a position to challenge a set viewpoint. One person commented that the people engaged as external experts should not be engaged continuously but rather take extended breaks between contracts to ensure they maintain their independence.

**3.25** Most interviewees agreed that centralising the management of the Gate Review program within IPPO had merit. This change gave the program greater independence from line management, helped engage the appropriate stakeholders in the reviews and standardised Gate Review processes. Centralising management also meant that systemic issues with DMO's project management practices could be identified, lessons learned could be catalogued and, as a result, improvements made to DMO's processes to prevent common project management mistakes from being repeated.

**3.26** Several interviewees mentioned the lack of a formal process to follow up actions raised during Gate Reviews. One experienced Gate Review

Assurance Board member stated that actions were often not followed up until the next Gate Review.

**3.27** A common view was that while the program has the ability to improve project outcomes, it should not be expected to identify every risk and the reviews add to the already lengthy process of progressing a project through its lifecycle.<sup>62</sup>

## Analysis of Gate Review records

### Completeness of the records

**3.28** To assess the completeness of DMO's Gate Review records the ANAO identified, from a list compiled by IPPO, all the Gate Reviews held before 31 December 2011.<sup>63</sup> DMO's approved Gate Review policy assigns overall responsibility for managing the Gate Review program to Major Program Control Branch (this responsibility was transferred to IPPO in July 2011). However, this policy also delegates the responsibility for coordinating some Gate Reviews to the division in which the project resides. As such, some of DMO's Gate Reviews were coordinated centrally by either IPPO or Major Program Control Branch and some were coordinated by DMO's divisions.

**3.29** ANAO obtained from IPPO copies of the records of all Gate Reviews held before 31 December 2011 and the audit team analysed these records to assess their completeness. ANAO considered the records of a Gate Review to be sufficient if they included documents identifying the date of the meeting, who chaired it, and its outcomes.

**3.30** Of the 163 Gate Reviews included in IPPO's records as having occurred before 31 December 2011, 35 (or 21 per cent) had incomplete records (Table 3.2). In most of these cases, IPPO did not have a record of who chaired the meeting and, in each case, IPPO did not have a record of what actions were recommended as a result of the meeting.

<sup>62</sup> Overall, the views obtained through ANAO interviews were consistent with DMO's own on-line survey of the performance of its Gate Review program, which was undertaken during the course of the ANAO audit. (DMO minute, 'Evaluation of the DMO Gate Reviews Program', 23 April 2012.)

<sup>63</sup> IPPO's *Project Progress Overview* spreadsheet listed all major projects underway in Defence (including those still progressing through the Government two-pass approval process). IPPO recorded on this spreadsheet the progress of the project to date, and for some of the projects, the date of the most recent Gate Review held and the date of the next scheduled Gate Review. In August 2011, IPPO changed the name of this document to *DMO Project Dashboard*.

**Table 3.2****Completeness of DMO records of Gate Reviews held before 31 December 2011**

Completeness of meeting records	Gate Reviews managed:		Total
	centrally	by Divisions	
Complete	95	33	128
Incomplete	1	34	35
<b>Total:</b>	<b>96</b>	<b>67</b>	<b>163</b>

Source: ANAO analysis of DMO's Gate Review records.

**3.31** Of the Gate Reviews for which no record of the meeting could be found, all except one were coordinated by DMO's divisions. On the basis of information available from IPPO, the divisions kept records for only half of the Gate Reviews they coordinated.

**3.32** DMO's Gate Review policy states that: 'for ACAT III and IV projects the chair will appoint a secretariat from within Divisional resources.' To manage the additional workload of providing secretariat support for Gate Reviews of ACAT III and IV projects, each division appointed a Gate Review Divisional Coordinator. These coordinators undertook this work in addition to their other existing duties. One Gate Review Divisional Coordinator reported to the audit team that this extra work took approximately 25 – 30 per cent of his time.

**3.33** DMO's Gate Review policy provides little guidance on what is expected of a Gate Review Assurance Board secretariat and does not mention the role of Gate Review Divisional Coordinators. As of July 2011 DMO centralised management and coordination for all Gate Reviews within IPPO.

***Importance of documenting Gate Review meeting outcomes***

**3.34** The presence of documented outcomes is an historical record of the agreed status of a project, its risks and the way ahead. Moreover, it shows the actions that various parties have been directed to undertake to progress the project and meet DMO's obligation to provide advice to Government.

**3.35** DMO recognised the importance of documenting the outcomes from Gate Review meetings at a Divisional Coordinator meeting held in July 2011. At this meeting, IPPO stated that it was important to document the recommendations and actions arising from each Gate Review meeting and to include enough detail about the discussion held during the meeting to provide



adequate context to these recommendations and actions. IPPO also advised that Gate Review outcomes must be prepared by someone who is independent from the project team. IPPO recommended that, if the chair does not summarise the actions at the end of the meeting, the secretary should do so.

**3.36** Since July 2011 IPPO has managed all Gate Reviews held and this has substantially improved the administration of the program. Table 3.2 shows that DMO had complete records for all but one of the Gate Reviews centrally managed by either IPPO or its predecessor, Major Program Control Branch.

### **Compliance of DMO's Gate Reviews with the essential characteristics**

**3.37** The remainder of this section reports ANAO's broad analysis of the compliance of DMO's Gate Reviews with the three essential characteristics. The analysis is limited to those 128 Gate Reviews for which DMO could provide complete records. The analysis considers how DMO conducted Gate Reviews during the following three periods of the program's development:

- between July 2008 and August 2009, when DMO held its first two Gate Reviews;
- between August 2009 and July 2011, when Gate Reviews of ACAT I and II projects were largely coordinated by Major Program Control Branch and Gate Reviews of ACAT III and IV projects were largely coordinated by the divisions in which the projects resided; and
- following the establishment of IPPO, between July 2011 and 31 December 2011 (being the end of the audit fieldwork) when DMO consolidated management and coordination for all Gate Reviews within IPPO.

**3.38** As described in paragraphs 3.28 and 3.29, ANAO obtained the information for this analysis from IPPO's records. IPPO continued to update these records during the audit fieldwork period with information about Gate Reviews held recently and also with historical information about Gate Reviews held during the previous two years. Before July 2011, DMO did not maintain a definitive list of all Gate Reviews held. IPPO's *Project Progress Overview* spreadsheet, renamed the *DMO Project Dashboard* in August 2011, was the most complete list. This spreadsheet lists, for all major projects underway in Defence, the date of the most recent Gate Review and the scheduled date of the next. However, as projects undergo additional Gate Reviews, historical

information about previous Gate Reviews drops off the list. As such, it is not possible for the ANAO to gain assurance as to the completeness of the records for Gate Reviews held before 1 July 2011.

### **The first two Gate Reviews**

**3.39** As discussed in Chapter 2, the first two Gate Reviews were held on 4 August 2008 and 25 September 2008. At this time, DMO had not developed nor promulgated any administrative policy for the conduct of Gate Reviews. Both Gate Reviews were chaired by the General Manager Systems, who had line management responsibility for the projects under consideration. The rest of the board comprised internal DMO personnel. No external experts were present.

**3.40** At the August Gate Review the then General Manager Systems stated that Gate Reviews were 'to provide a forum for executive review and decision making on projects at critical lifecycle milestones'. He also directed that 'written reports would not be prepared for the review; instead the format for these reviews would take the form of an open forum discussion.' No preliminary analysis of the project under review was prepared before either of these Gate Review meetings.

**3.41** DMO conducted no further Gate Reviews until September 2009.

### **Expansion of Gate Reviews: August 2009 – July 2011**

**3.42** DMO established a Gate Review Directorate within the Major Program Control Branch in August 2009, and CEO DMO approved DMO's Gate Review policy in December 2009. DMO conducted the first Gate Review in accordance with this policy in September 2009. This approved policy remained current between August 2009 and July 2011.

**3.43** DMO held complete records for 79 Gate Reviews held during this expansion period. Most Gate Reviews of ACAT I and II projects were coordinated by Major Program Control Branch and most Gate Reviews of ACAT III and IV projects were coordinated by the divisions in which the project resided (Table 3.3).

**Table 3.3****Coordination of Gate Reviews, August 2009 – July 2011**

Number and type of Gate Reviews coordinated by:	2009–10	2010–11	Total
<b>Major Program Control Branch</b>			
ACAT I & II	10	22	<b>32</b>
ACAT III & IV	2	11	<b>13</b>
Sustainment	1	0	<b>1</b>
<b>Total:</b>	<b>13</b>	<b>33</b>	<b>46</b>
<b>DMO Divisions</b>			
ACAT I & II	2	2	<b>4</b>
ACAT III & IV	5	24	<b>29</b>
Sustainment	0	0	<b>0</b>
<b>Total:</b>	<b>7</b>	<b>26</b>	<b>33</b>

Source: ANAO analysis of DMO's Gate Review records.

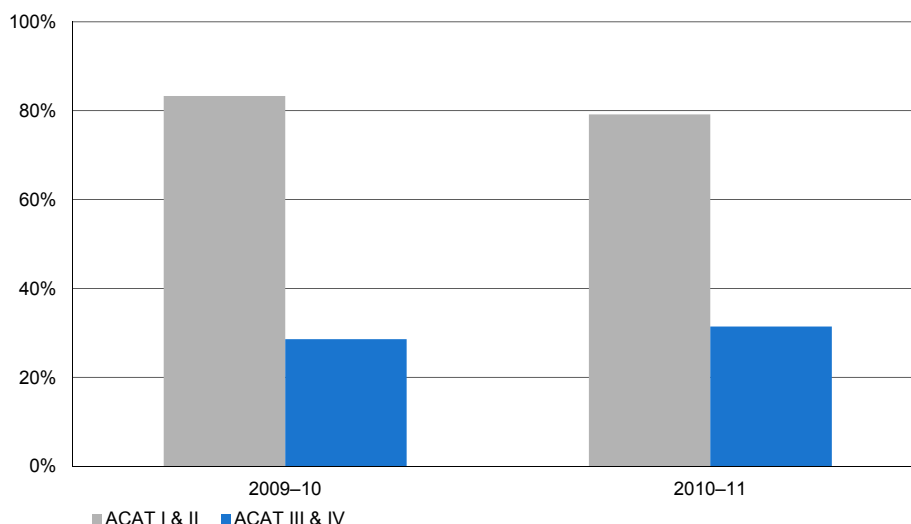
*Documented, preliminary analysis of projects*

**3.44** DMO's Gate Review policy states that for Gate Reviews of ACAT I and II projects and selected ACAT III and IV projects, the Major Program Control Branch will prepare a review of a project before it is considered by a Gate Review Assurance Board. The policy does not state how to select, or who selects, which ACAT III and IV projects are required to be reviewed before consideration by a Gate Review Assurance Board and it does not require the findings of all reviews to be documented, stating that the findings of such analysis will normally be presented in an agenda paper.

**3.45** During this period DMO undertook a preliminary analysis for a minority of Gate Reviews of ACAT III and IV projects, whereas it conducted a preliminary analysis for almost 80 per cent of Gate Reviews of ACAT I and II projects. Furthermore, the number of Gate Reviews for which DMO undertook a preliminary analysis was steady over the two-year period (Figure 3.2).

**Figure 3.2**

**Percentage of Gate Reviews for which DMO documented a preliminary analysis of the project, August 2009 – July 2011**



Source: ANAO analysis of DMO's Gate Review records.

**3.46** DMO's Gate Review policy places much importance on conducting a preliminary analysis, stating that this analysis helps the Gate Review Assurance Board to focus on the issues facing the project and strengthens the effectiveness of the Gate Review.<sup>64</sup> When done well, a preliminary analysis of the project under review conducted by someone not involved with the project provides both:

- a degree of external scrutiny to the Gate Review; and
- visibility to senior managers with responsibility for the project under review of the issues that project is facing, helping the manager to make appropriate interventions.

**3.47** A half-yearly evaluation meeting of the Gate Review program, in July 2010, found that preliminary analysis of projects was essential to the success of the Gate Review program. At this time DMO planned to undertake more

<sup>64</sup> DMI (A&S) 14-0-003Version 1.0, 16 December 2009, p. 9.

preliminary analyses for Gate Reviews of ACAT III and IV projects as resources permitted. Figure 3.2 shows that this intention was not realised.

**3.48** In the Defence Annual Report 2009–10, DMO again attributed the success of Gate Reviews to ‘thorough preliminary evaluation, accountability, independence and a collegiate approach to improving the project.’

#### *External board members*

**3.49** As discussed in paragraph 3.40, the initial emphasis of Gate Reviews within DMO was on detailed executive review of projects. With the abolition of the Domain Assurance Boards in mid-2009, at the start of this expansion period, the emphasis of Gate Reviews shifted towards including external scrutiny of projects.

**3.50** DMO’s Gate Review policy states that Gate Review Assurance Boards will normally include an external member. The policy states that the ‘independence’ of the board ‘will be strengthened through the involvement of independent members with no line management accountability for the project.’

**3.51** DMO’s Gate Review policy describes an external member as someone ‘who brings high levels of expertise, commercial acumen and independence [to the board].’ The group from whom DMO selects these members are:

- not permanent employees of DMO, but engaged, between August 2009 and July 2011, at a rate of \$220 – \$259 per hour plus a retainer of between \$880 – \$1040 per month under a DMO Eminent Persons Engagement Agreement; and
- have no line management responsibilities within DMO but are usually drawn from a pool of former Defence and industry senior executives, including some who had previously held senior management positions within DMO.

**3.52** Most Gate Reviews held during this period included at least one external board member (Table 3.4).

**Table 3.4**

**Percentage of Gate Review Assurance Boards including one or two external members, August 2009 – July 2011**

Number of external members	ACAT I & II	ACAT III & IV
One external member	53%	64%
Two external members	36%	12%
<b>Total</b>	<b>89%</b>	<b>76%</b>

Source: ANAO analysis of DMO's Gate Review records.

**3.53** The July 2010 Gate Review program evaluation meeting found that external members were providing rigour and assurance to the process. However, the meeting noted that it is important that the independent members understand the Defence business and that, while the number of independent members should be increased, the quality of those members should not be compromised.

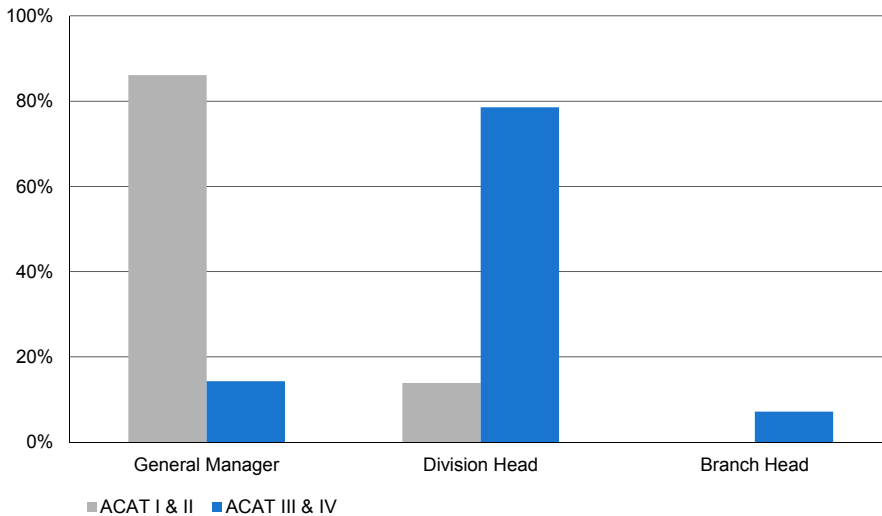
*Seniority and independence of Gate Review chair*

**3.54** DMO's Gate Review policy recommends that:

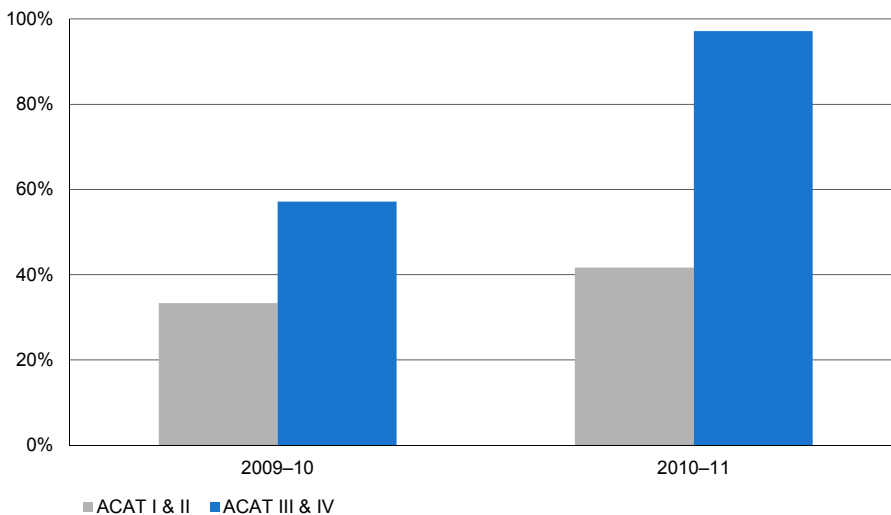
- a General Manager, usually with no line management responsibility for the project under review, chair reviews of all ACAT I and II projects and chairs the reviews of all projects pre-second pass; and
- the responsible Division or Branch Head chairs all the Gate Reviews of post-second pass, ACAT III and IV projects.

**3.55** During the July 2010 Gate Review program evaluation meeting, the General Manager Systems highlighted the dangers of line management reviewing their own project, stating that, 'to avoid blind spots it was important that the chair was relatively independent.'

**3.56** During this period, most Gate Reviews of ACAT III and IV projects were chaired by a Division Head with direct responsibility for the project, whereas most Gate Reviews of ACAT I and II projects were chaired by a General Manager who did not have direct responsibility for the project under review (Figure 3.3 and Figure 3.4).

**Figure 3.3****Seniority of Gate Review Assurance Board chairs for Gate Reviews held August 2009 – July 2011**

Source: ANAO analysis of DMO's Gate Review records.

**Figure 3.4****Percentage of Gate Reviews chaired by a manager with some responsibility or accountability for the project under review, August 2009 – July 2011**

Source: ANAO analysis of DMO's Gate Review records.

*Overall compliance of Gate Reviews held between August 2009 and July 2011 with the essential characteristics*

3.57 During this period DMO's Gate Review program was characterised by a two-tiered approach with most Gate Reviews of ACAT I and II projects complying with the essential characteristics but very few Gate Reviews of ACAT III and IV projects complying with all three essential characteristics (Table 3.5).

**Table 3.5**

**Compliance of Gate Reviews against the essential characteristics, August 2009 – July 2011**

Essential Characteristic	ACAT I & II	ACAT III & IV
Chair independent of line management	61%	9.5%
External board member	89%	76%
Documented preliminary analysis	81%	31%

Source: ANAO analysis of DMO's Gate Review records.

3.58 In summary, between August 2009 and July 2011 Gate Reviews of ACAT I and II projects were generally:

- coordinated by Major Program Control Branch;
- chaired by a General Manager with no direct responsibility for the project under review;
- informed by a documented preliminary analysis conducted by someone not involved with the project; and
- considered by a Gate Review Assurance Board that included at least one independent external member.

3.59 In comparison, during this same period, Gate Reviews of ACAT III and IV projects were generally:

- coordinated by the division in which the project resided;
- chaired by the Division Head responsible for the project under review;
- not informed by a documented preliminary analysis; and
- considered by a Gate Review Assurance Board that included one independent external member.

3.60 In July 2010, a half-yearly evaluation meeting of the Gate Review program found that, in relation to Gate Reviews of ACAT III and IV projects:



These boards have a distance to go in providing rigorous review. Concern was expressed that key line managers were managing tactically, not strategically ... Did they all have the skills to ask penetrating questions to fully expose an issue? ... Greater participation of external members and preliminary analysis would greatly assist. The example of the ACAT I and II boards was providing valuable guidance to line managers.

## **Gate Reviews managed by IPPO: July 2011 – 31 December 2011**

**3.61** In June 2011 the Ministers for Defence and Defence Materiel announced that, as had been recommended by the Mortimer Review in 2008, DMO would establish an 'Independent Project Performance Office'. IPPO would begin operating from 1 July 2011. IPPO took over the functions of the Major Program Control Branch including the Gate Review Directorate.

**3.62** The Ministers also announced that an additional 14 independent experts with significant project management and commercial experience would be contracted by Defence to act as board members on Gate Reviews and that this would ensure that there were 'at least two external members on every significant gate review board.'

**3.63** After July 2011, the management and coordination of all Gate Reviews was centralised within IPPO. This has had the effect of standardising processes and improving the management of records. IPPO also released a draft version of an updated Gate Review administrative policy in July 2011, which it further updated in November 2011. Between July 2011 and 31 December 2011 the approved policy remained the original December 2009 version.

**3.64** DMO held records for 47 Gate Reviews held between July 2011 and 31 December 2011. Table 3.6 shows the compliance of these Gate Reviews against the essential characteristics.

**Table 3.6**

### **Compliance of Gate Reviews against the essential characteristics, July 2011 – 31 December 2011**

Essential Characteristic	ACAT I & II	ACAT III & IV
Chair independent of line management	50%	43%
External board member	100%	100%
Documented preliminary analysis	100%	89%

Source: ANAO analysis of DMO's Gate Review records.

### *Seniority and independence of Gate Review Chair*

**3.65** Under IPPO's management, the distinction between Gate Reviews of ACAT I and II projects and ACAT III and IV projects has decreased. All Gate Reviews held during these six months included an external member on the Gate Review Assurance Board and almost all were informed by a documented preliminary analysis. However, more than half of all Gate Reviews conducted during this period were chaired by someone with some responsibility or authority for the project under review.

**3.66** This practice—of having a senior line manager for the project under review chair the Gate Review—contravenes specific changes made by DMO to its Gate Review policy on this point. DMO's draft Gate Review policy (July 2011) removed the requirement for the 'responsible' Division Head or Branch Head to chair Gate Reviews of ACAT III and IV projects and states that 'the chair must have sufficient independence from the project to allow objective assessment of the project status and the issues it faces.' This requirement was retained in the draft policy of November 2011 and strengthened in the latest policy amendments approved in April and May 2012 which state 'the Chair must not be in the line management of the project under review.'

**3.67** Similarly, a half-yearly evaluation meeting of the Gate Review program, held in July 2011, reaffirmed the need for independent chairs. In particular, the review found that Division Heads should chair a Gate Review only if they had not been heavily involved in the project.

**3.68** Over the whole period DMO has been conducting Gate Reviews, reviews of ACAT I and II projects have become more likely to be chaired by a manager (usually a General Manager) with some responsibility or accountability for the project under review. During the first year DMO conducted Gate Reviews (July 2009 – June 2010), 33 per cent of Gate Reviews of ACAT I and II projects were chaired by a manager with some responsibility or accountability for the project under review. During the second year (July 2010 – June 2011) this increased to 42 per cent. During the first six months of IPPO's management of all Gate Reviews this increased further to 50 per cent.

**3.69** In comparison, 57 per cent of Gate Reviews of ACAT III and IV projects held between July 2009 and June 2010 were chaired by a manager (usually a Division Head) with some responsibility for the project under review. This increased to 97 per cent during DMO's second year of conducting Gate

Reviews and came back down to 57 per cent during the period IPPO has managed all Gate Reviews.

### *External board members*

**3.70** DMO's draft Gate Review policy dated July 2011, stated that 'each Board will include at least two external board members who have extensive Defence or commercial experience,' consistent with the ministers' announcement (para. 3.62). As noted earlier, the draft policy of November 2011 returned to a less definitive position, stating that 'each board will normally include at least two external board members', effectively removing the mandatory requirement for external members. DMO has advised that this draft change in policy was unintentional and the latest amendment now specifies that 'each board will include at least one, and normally two External Board Members'.

**3.71** In the event, since July 2011 all Gate Review Assurance Boards have included at least one external member. Some 90 per cent of Gate Reviews of ACAT I and II projects and 66 per cent of Gate Reviews of ACAT III and IV projects have had two external members on the board (Table 3.7).

**Table 3.7**

**Percentage of Gate Review Assurance Boards including one or two external members, July 2011 – 31 December 2011**

Number of external members	ACAT I & II	ACAT III & IV
One external member	10%	34%
Two external members	90%	66%
<b>Total</b>	<b>100%</b>	<b>100%</b>

Source: ANAO analysis of DMO's Gate Review records.

### *Documented, preliminary analysis of projects*

**3.72** Almost all Gate Reviews held during this period were informed by a preliminary analysis of the project under review. The half yearly evaluation meeting of the Gate Review program held in July 2011 'recognised that in-depth preliminary analysis was pivotal to ensuring program success.'

**3.73** During this period DMO increased its reliance on the external board members conducting the preliminary analyses without the assistance of an IPPO project analyst. These analyses were of varying quality. Some were self-evidently thorough and comprehensive; others were brief summaries of the project's attributes and the written material did not provide much apparent

insight or analysis of the issues the projects were facing. For half of them, the author of the analysis was not identified. In these cases, IPPO confirmed that they had been conducted by an external board member. During this period IPPO's Gate Review process included a pre-brief meeting where the person or persons who conducted the preliminary analysis briefed the other board members on their findings. It is possible that during these meetings the external board member who conducted the preliminary analysis provided the other board members with insights not present in their documented findings. However, their analytical work would be more transparent if properly documented.

**3.74** In conclusion, in the period between July 2011 and the end of audit fieldwork (31 December 2011) all DMO's Gate Reviews were managed and coordinated by IPPO and, in general, complied with two out of three of the essential characteristics. In particular, during this period:

- most Gate Review Assurance Boards convened were chaired by either a Division Head or General Manager with some responsibility or accountability for the project under review. Of note, Gate Reviews of ACAT I and II projects became more likely, during this period, to be chaired by a manager with some responsibility or accountability for the project under review than during the first two years of DMO's Gate Review program;
- all Gate Reviews held were informed by a documented preliminary analysis of the project under review, conducted by someone not associated with the project; and
- most Gate Review Assurance Boards convened included two independent external members.

## Case Studies

**3.75** ANAO reviewed three projects in detail which had undergone Gate Reviews. These case studies can be found at Appendix 4 and are summarised in this section. They show that Gate Reviews can help to draw management attention to many of the problems and risks facing projects. However, holding a Gate Review does not provide assurance that all problems and risks will be discussed and addressed.

**3.76** The case studies demonstrate that DMO's Gate Review process has matured over time and illustrate some of the challenges facing DMO's Gate Review program such as:

- the poor regulation of Gate Reviews, particularly before the centralised management of the program within IPPO, contributing to the use of the term 'Gate Review' to describe reviews and meetings that do not adhere to DMO Gate Review policy;
- the risk that project teams may seek to influence the scope of Gate Reviews;
- the independence of Gate Review Assurance Boards, particularly in relation to the appointment of the chair, and the seniority of board members can affect how effectively Gate Reviews address a project's issues;
- that Gate Reviews can be resource-intensive; and
- that Gate Reviews can generate a large number of action items.

### **Case Study 1: Land 106—M113 Upgrade**

**3.77** M113s are a family of tracked vehicles, 431 of which are being upgraded under the Land 106 project. The project has been delayed due to a number of factors and was, for a time, the subject of attention as a Project of Concern.

**3.78** This case study provides an example of the variable use of the term 'Gate Review', the influence project teams may seek over the scope of a Gate Review, and issues associated with the level of independence and seniority of the Gate Review Assurance Board:

- First, DMO incorrectly advised Government in April 2011 that it had held a Gate Review for this project in October 2010, when in fact the meeting referred to was not a Gate Review.
- Second, the project office sought to narrow the scope of a Gate Review for the project conducted in August 2011. IPPO informed the project office that was not appropriate but, in the event, the available documentation suggests that the Gate Review focused on the schedule-related aspects of a Contract Change Proposal.
- Third, the Gate Review Assurance Board for this August 2011 Gate Review was chaired by the Division Head responsible for the project,

and comprised one external member and three other DMO officers internal to the division in which the project resided, two of whom delegated their attendance to more junior staff.<sup>65</sup>

## **Case Study 2: Land 112 Phase 4—ASLAV Enhancement**

**3.79** The Australian Light Armoured Vehicle (ASLAV) is an eight-wheeled armoured vehicle. Land 112 Phase 4 was to provide ‘enhanced survivability’ (such as improved ballistic and mine protection) and a mid-life upgrade for 113 ASLAVs.

**3.80** A Gate Review held in March 2010 was heavily focused on schedule risk and gave limited attention to technical risk. It found that the project was ready to proceed to second-pass approval and the project then commenced solicitation activities. By the time of the next scheduled Gate Review, twelve months later, DMO management was aware of a range of serious problems, all of which had originated before the first Gate Review, and the project was ultimately cancelled before contract signature.

**3.81** In this case, the first Gate Review did not identify the main problems facing the project. Again, there is a risk that a heavy focus on one particular aspect—schedule—may have inhibited attention being given to other potential risks. By the time the second Gate Review took place, Defence had recognised the critical problems facing the project. While the second Gate Review did not identify any previously unknown issues, it did formally disclose the extreme risk of proceeding and advised Government accordingly.

## **Case Study 3: Air 9000 Phase 2, 4 and 6—MRH-90**

**3.82** This project seeks to acquire 46 multi-role helicopters for Army and Navy use. Defence presented the chosen option to government as a low-risk acquisition of a proven aircraft. This proved to be incorrect, and the project has been the subject of delays due to substantial technical and contractual issues.

**3.83** The project has been the subject of two Gate Reviews, in February 2011 and September 2011. The records relating to these two Gate Reviews, combined with the behaviours observed by ANAO at the September 2011

---

<sup>65</sup> Although the Gate Review Assurance Board included only one external member, representation was provided at the Gate Review meeting by invited attendees from Capability Development Group and Army Headquarters.

meeting, portray a well-managed, helpful review process which addressed a wide range of complex problems and authorised actions aimed at resolution.

**3.84** While the process was resource intensive and the outcomes will not be visible for some time, this is a good example of what Gate Reviews can potentially achieve to minimise or prevent project failure.

## Conclusion

**3.85** DMO started to conduct Gate Reviews regularly towards the end of 2009. During the first two years of implementation the program was weakened by a difference in rigour applied to Gate Reviews conducted by DMO's divisions and to those conducted by Major Program Control Branch, resulting in the variable use of the term 'Gate Review'. Since DMO established IPPO, in July 2011, and centralised the management of all Gate Reviews within IPPO, the program has been strengthened and is better regulated.

**3.86** A significant number of Gate Reviews have been chaired by individuals with line management responsibility for the project under review. This trend has increased in recent times and contravenes DMO policy. The latest policy amendment, approved on 3 May 2012, further strengthens the requirement for chair independence.

## 4. DMO Monitoring of Gate Reviews

---

*This chapter considers how DMO monitors and evaluates Gate Reviews, their cost and benefits, and the future practicality of DMO Gate Review administrative policy.*

### Monitoring and Review

**4.1** Monitoring and review is an essential part of management; it allows management to learn and adapt processes to ensure program implementation is as effective as possible. For DMO's Gate Review program, monitoring and review includes: ensuring that the outcomes of each Gate Review are followed through; assessing the effectiveness of the Gate Review approach; being aware of the costs of implementing the program; and addressing any unintended consequences.<sup>66</sup> Careful review of Gate Review outcomes is also an opportunity for 'learning lessons' about the management of capital acquisition projects within DMO.

**4.2** The audit considered the following matters:

- whether DMO monitors the carrying out of the agreed actions flowing from Gate Reviews. Gate Reviews may be of diminished value if there is no mechanism to verify that agreed follow-up is carried out;
- whether DMO has evaluated its Gate Review process. This has two related aspects: first, working out whether Gate Reviews are inherently worthwhile and, second, ensuring that they are managed with maximum effectiveness;
- whether DMO has sought to learn lessons about its capital acquisition projects from Gate Reviews; and
- whether DMO is aware of the costs of developing and implementing its Gate Review policy and has considered the program's longer-term sustainability.

---

<sup>66</sup> ANAO and the Department of the Prime Minister and Cabinet, *Implementation of Programme and Policy Initiatives: Making Implementation Matter* (Better Practice Guide), October 2006, Chapter 9. <[http://www.anao.gov.au/~media/Uploads/Documents/implementation\\_of\\_programme\\_and\\_policy\\_initiatives.pdf](http://www.anao.gov.au/~media/Uploads/Documents/implementation_of_programme_and_policy_initiatives.pdf)> [accessed 23 March 2012].



## DMO monitoring of Gate Review action items

### DMO administrative policy

**4.3** DMO's administrative policy for Gate Reviews places particular emphasis on completing the action items that flow from Gate Reviews. That policy has, from the outset, recognised a need to assign responsibility for carrying out those actions, though it has become less precise in later drafts.

**4.4** The original policy, approved in December 2009, states that: 'Project Managers are responsible for ... ensuring that the project completes any actions that may be required by the review.' It also states that the last of the six steps in a Gate Review is 'Certification that follow-up action is complete', though it is silent on how that certification is to be provided or verified.

**4.5** The May 2012 revised policy elaborates on these requirements. It includes a specific policy directive that 'Line management must implement the agreed Gate Review outcomes' and identifies 'Line management follow through to implement and close Gate Review actions' as the last of nine factors upon which the success of a Gate Review depends. The last element of a Gate Review has been amended now to read 'Completion and status reporting of actions', where status reporting is the new element.

**4.6** The May 2012 revised DMI states that:

A Gate Review Board does not usurp line management responsibility and the recommendations and actions must be considered and accepted, or rejected with argument, by the Senior Executive [defined as the person to whom the Chair makes a formal recommendation following a Gate Review]. Once accepted, the responsible line manager is to ensure recommendations and actions are implemented and advise completion to the Senior Executive, and the IPPO.

**4.7** In response to a query about how DMO monitors the follow-through, it advised that:

IPPO distributes the outcomes signed by the responsible senior executive. The project is required to provide a certification to that executive and IPPO once all actions are complete.

**4.8** However, DMO went on to say:

At a program review earlier this year the General Managers recognised there were shortcomings in the follow-through by line management and directed DGGA to implement an audit program. IPPO is also strengthening line management reporting mechanisms on completion of actions.

**4.9** The strengthening referred to in this response takes the form of a template or pro forma to be completed by line management to advise IPPO of the status of actions.<sup>67</sup> ANAO has observed some instances of this documentation being recorded by IPPO. However, at this stage, DMO has not provided any evidence of how rigorously these self-reporting arrangements are examined or verified by IPPO.

**4.10** In relation to the audit function, whereas the July 2011 and November 2011 draft updates to the DMI, directed that 'Director-General, Governance and Assurance (DGGA) will audit the completion of actions' the May 2012 update changes this to have the DGGA audit 'Divisional action closure processes'<sup>68</sup> and not whether the actions have been completed. DGGA—who is the same person in DMO as the Chief Audit Executive—also advised the ANAO that it was up to the next Gate Review to verify that actions flowing from the previous Gate Review for that project had been completed.

### **Appropriateness and effectiveness of these arrangements**

**4.11** Two major points can be made about these arrangements:

- first, DMO has consistently assigned responsibility for any follow-up action from a Gate Review to the area of the organisation responsible for the project. This assignment of responsibility has become less specific in later drafts of its administrative policy, moving from *project manager* to *line management*, but there is no doubt that, organisationally, responsibility has been with the DMO division responsible for the project; and
- second, there has not yet been an adequate formal mechanism for verifying that this action is complete—ensuring that the follow-up has taken place.

**4.12** There are two aspects that require further discussion: the role of Chief Audit Executive, and the implementation of an effective mechanism for verifying Gate Review follow-up actions by line management.

---

<sup>67</sup> The IPPO intranet website contains draft documentation including a document referred to as 'Template 4. GR Outcomes—Actions status' and titled 'DMO Action Item Situation Report'. Additional guidance notes also available on this site state 'It is then up to the nominated person to follow up on the actions and advise their Senior Line Manager as appropriate.'

<sup>68</sup> Assigning responsibility to DGGA for auditing the completion of actions was an outcome of the DMO *Evaluation of the Gate Review Program*, 9 June 2011.

### *Whether the Chief Audit Executive should verify follow-up action*

**4.13** The Chief Audit Executive's responsibilities within DMO are substantially those of internal auditor. Consistent with this, the function assigned to that position in the Gate Review policy document is specifically to 'audit' the follow-up actions, not to monitor the status or ensure completion.

**4.14** Staff to whom the audit team spoke during fieldwork had a consistent view that responsibility for verifying follow-up action after a Gate Review lies with DGGA/Chief Audit Executive, reflecting the assignment of responsibility in the two draft versions of the policy document, referred to above. They appear not to be aware of the distinction drawn out in the latest approved version of the DMI, in which DGGA is required only to audit the existence of a process rather than the completion of actions. This may need to be explained further if it is to be meaningful and understood by DMO staff.

**4.15** Primary management control mechanisms—such as that required to ensure the follow-up takes place—should not be confused with the role of internal audit:

Although internal auditors can be a valuable advisory resource on internal control, the internal auditor should not be a substitute for a strong internal control system. A system of internal control is the primary response to risks.<sup>69</sup>

**4.16** This is not to say that follow-up action should not be audited from time to time by the Chief Audit Executive. That might well be part of a normal internal audit program within DMO. Rather, internal audits should not be relied upon as part of the normal operation of the program. That operation needs to be complete by itself and in no way dependent on an audit function. Otherwise, the auditor is prevented from providing the independent assurance about the program which senior management reasonably expects.

**4.17** There remains a risk of confusion of roles under current arrangements, and particularly while the DGGA and Chief Audit Executive are positions held by the same person.

### *Verifying Gate Review follow-up action*

**4.18** DMO's internal control structure in this case is incomplete. In other words, the organisation has not yet established a reliable, central mechanism

---

<sup>69</sup> INTOSAI Professional Standards Committee, *Internal Audit Independence in the Public Sector*, INTOSAI GOV 9140. See <<http://www.intosai.org>> [accessed 20 February 2012].

for gaining assurance that the actions from Gate Reviews are being carried out or otherwise acquitted.<sup>70</sup> This does not necessarily mean that line management in the separate divisions of the organisation is not following through on the responsibilities conferred on it by the Gate Review process. Rather, it means that the controls are uncertain.<sup>71</sup> Follow-up has not only been assigned to line management but largely left to its discretion. This results in any information on the status of Gate Review recommendations being held, at best, in diverse locations according to local preferences.

**4.19** One approach to putting a central control mechanism in place to monitor and verify follow-up actions after Gate Reviews would be to assign it formally to IPPO, with appropriate resources to carry it out. This would be consistent with the general responsibilities of the Director-General, Independent Project Performance for all other aspects of management of the Gate Review program.

**4.20** It is encouraging that IPPO has been seeking to strengthen reporting, (para. 4.9, above) but effective implementation is likely to require more than the drafting of a template for reporting and an invitation to use it. It will need a clear acceptance by all DMO divisions that reporting on follow-up actions is mandatory. Divisions need to be aware that provision of evidence that follow-up action is complete—including any lack of satisfactory progress—will be scrutinised and, where there are deficiencies, receive the attention of senior management. Otherwise there is a risk that necessary corrective work for a project will be set aside until the next Gate Review occurs for that project.

---

<sup>70</sup> One experienced independent external participant in DMO Gate Reviews observed to the audit team that the only way to work out whether there had been follow-up action was at a subsequent Gate Review for the same project.

<sup>71</sup> DMO's own on-line survey of the performance of its Gate Review program, which was undertaken during the course of the ANAO audit, finds that an area of concern is 'the time it takes for projects to receive the outcomes is considered excessive.' This could also be addressed as part of an effective method of following up the Gate Review outcomes. (DMO minute, 'Evaluation of the DMO Gate Reviews Program', 23 April 2012.)

## Recommendation No.1

**4.21** The ANAO recommends that Defence ensures that a control mechanism is deployed to monitor the status and completion of actions recommended by Gate Review Assurance Boards and agreed by the relevant executive.

**Defence response:** Agreed.

**4.22** The ANAO observed during fieldwork and through review of Gate Review records that Gate Review Assurance Boards frequently generate a large number of items for follow-up. These actions are often not completed either in the time frame specified or by the time of the next Gate Review.<sup>72</sup> While Gate Review action item lists have included a 'By when' column since around May or June 2011, they do not include a categorisation or ranking of importance. This means that the project team carrying them out may not give attention to what the Gate Review Assurance Board considers to be the most urgent or most important tasks. It may also be beneficial to consider, in instances where many action items are proposed, to reconvene at appropriate intervals between Gate Reviews to assess the progress against the actions items.

## Evaluation of the Gate Review process

### DMO claims about the Gate Review process

**4.23** DMO has made strong claims about the Gate Review process since its implementation. For example:

The [Gate Review Assurance Board] process is a proactive activity that has led to early identification, intervention and resolution of risks and issues across numerous projects in DMO. Given the success of this methodology, the [Gate Review Assurance Board] process will be extended to all major projects.

**4.24** However, DMO has not compiled any firm, objective data with which to substantiate these claims. When invited to provide evidence to support the contention that Gate Reviews 'had led to early identification, intervention and resolution of risks and issues across numerous projects', DMO advised that

---

<sup>72</sup> This has been noted on many occasions. Examples include the JP2060 Phase 2B Gate Review, held 13 October 2011, and Land 112 Phase 4 Gate Review, held 30 March 2011.

this view was ‘based on the judgement of the senior executive given their experience of the Boards.’

**4.25** Because of their protracted implementation period, centrally managed Gate Reviews conducted in accordance with the currently accepted process did not commence until July 2011. Given that the life of most capital acquisition projects is several years, it is very unlikely that there could be sufficient data on the effects—especially the longer-term effects—of Gate Review actions to allow DMO to form a complete and mature view on the effectiveness of the program.

**4.26** Nevertheless, there is clearly a strong perception among DMO senior management that Gate Reviews are helping DMO to manage its work. All the available anecdotal evidence suggests that most of the individuals involved, including external participants, agree that this form of review and assurance process is valuable. ANAO did not receive any negative comments during field work. However, to obtain independent assurance of such benefits requires more systematic and objective, evidence-based research.

**4.27** A program which has such high expectations of success, and which is resource intensive in both cost and effort, would benefit from a formalised process of gathering, recording and analysing performance data. In the strictest sense, systematic evaluation of this type of process is challenging for the following reasons:

- this activity cannot be subjected to experiment, nor to easy comparison between projects. Every project is unique and most are complex;
- there is no reliable way of posing a counterfactual in any individual case. That is, even if a Gate Review does draw attention to some important risk or information about a project, it is not possible to be confident whether, without a Gate Review, that risk would not have come to attention in any case by some other means;
- if that challenge could be overcome, an evaluation would also need confidence that the early risk identification in the course of a Gate Review then leads consistently to adequate corrective action. The discussion earlier in this chapter shows that processes to support this are far from mature; and
- finally, it would be necessary to discern and set aside any influences from other organisational changes that might also be occurring to be certain that observed benefits could only be accruing from Gate

Reviews.<sup>73</sup> Only then could an assessment be made of the contribution of the Gate Review process.

**4.28** In these circumstances, if a suitable research design could be devised, a thorough and reliable evaluation would be likely to take some years. The ANAO is not aware of any plans for such an evaluation of DMO's Gate Review program. However, IPPO has undertaken two activities that will contribute to assessing the value of Gate Reviews:

- it has recently undertaken a systematic survey of the views of its officers involved in Gate Reviews;<sup>74</sup> and
- it has recently commenced drafting a set of measurement 'metrics' to determine broad trends found in Gate Reviews.

**4.29** The latter approach will shed particular light on what Gate Reviews can reveal about acquisition projects that have been subject to review. This activity is considered further below in the discussion of 'lessons learned'.

**4.30** Given the challenges of evaluating the Gate Review program, in the shorter term, a potentially valuable technique is to obtain an assessment through a systematic survey of the views of a large number of experienced officers. Such a survey would go beyond the senior executive and include experienced project personnel. This must still be subject to caution for the risks of drawing on opinion that may be difficult to substantiate, as DMO recognises. During the course of the audit DMO advised:

Our primary analytical approach to Gate Review effectiveness is separate surveying of [Project Directors] and Chairs. Whilst subjective the sample population is fairly large and the individuals well placed to make the judgement.

**4.31** Because this work has been carried out simultaneously with the audit, the results are not yet available. However, the important aspect is that DMO is currently setting about this task. The ANAO suggests that it would aid transparency in the area of defence capital acquisitions if DMO were to publish

---

<sup>73</sup> DMO recognises this issue. It advised: 'We did also look at measuring DMO performance over time, but felt that we could not filter out the impact of the Gate Reviews from the many other reform activities happening across the organisation.'

<sup>74</sup> Towards the end of the audit, DMO provided a copy to the ANAO of the findings of its on-line survey of the performance of its Gate Review program. DMO invited 124 of its personnel to complete the survey. It advised that 48 per cent of SES Band 1 – 3 and 57 per cent of project managers responded. Relevant findings have been footnoted earlier in this report.

the results of this work on its internal website. There would also be merit in Defence committing to evaluate the DMO Gate Review program systematically.

## Recommendation No.2

### 4.32 The ANAO recommends that Defence:

- initiates planning to systematically evaluate DMO's Gate Review program. Suitable performance measures need to be identified and put in place early to inform an evaluation;
- undertakes that evaluation when sufficient data is available to enable it to draw sound conclusions about Gate Reviews as a project assurance technique.

**Defence response:** Agreed.

Defence intends to introduce an evaluation system based on available resources.

**4.33** As noted earlier, such an evaluation will take careful planning and cannot be expected to be completed quickly, as the effects of Gate Reviews will take time to propagate through DMO's large portfolio of projects. However, it may be prudent to identify performance indicators and metrics and begin data collection as early as possible so as to have a basis for identifying trends in due course.

## Meetings of senior DMO personnel to evaluate Gate Reviews

**4.34** Senior DMO managers have met on several occasions to evaluate its Gate Review program. The last occasion was in June 2011, just before the inception of the Independent Project Performance Branch (IPPO) in DMO. Participants included the (then) Deputy CEO, several DMO General Managers, two experienced independent members of Gate Review Assurance Boards, several DMO division heads and other senior staff centrally involved in the operation of Gate Reviews.

### 4.35 The outcomes of the meeting were summarised thus:

The evaluation team see the program as a valuable forward-looking assurance process. Gate Reviews provide a forum for engaging stakeholders, strategic analysis and resolving issues. Projects value the opportunity for professional discussion. Ministerial direction has [led] to the expansion of the program which requires development into an independent, tiered assurance program.



**4.36** The listed outcomes included a detailed range of aspects of the operation of Gate Reviews. An example is as follows:

**Preliminary Analysis.** The evaluation team recognised that in-depth preliminary analysis was pivotal to ensuring program success. Suitably experienced external members can undertake the task given the shortage of APS staff.

**4.37** Overall, it is clear that these meetings have been focused on ‘tuning’ the operation of Gate Reviews, seeking to identify and support the features that have been observed to be useful, and considering ways of sustaining or enhancing these features. This could be a useful input to administrative policy changes and it is possible to identify the influence some of these on current administrative policy for Gate Reviews. There may be merit in DMO continuing to conduct such review sessions and using them as a basis for further refinement of that policy until such time as a thorough evaluation can be completed. However, DMO advise the next review meeting planned for May 2012 will cover specific issues and that there are no plans for further general evaluation reviews.

## Learning from experience with capital acquisition projects

### ‘Lessons learned’

**4.38** DMO advised that it was implementing a ‘lessons learned’ system, to identify and learn about its projects from close scrutiny of its Gate Reviews:<sup>75</sup>

Our primary approach to identifying and correcting systemic issues is through our lessons learned system. ... this not only identifies trends but gives us information on causes. The lessons learned data collection system is in operation and our first major analysis is planned for June [2012].

**4.39** Again, this approach is in a formative stage and may take a year or two of data collection to discern any changes in performance results. At the time

<sup>75</sup> Seeking to identify lessons has been a common practice among other implementations of Gate Review-like project management techniques. See, for example, Finance’s published *Gateway Review Process—Lessons Learned*, at <http://www.finance.gov.au/publications/gateway-publications/lessons-learned.html> [accessed 14 March 2012] and the State Services Commission (New Zealand), *Gateway Reviews—Lessons Learned Report*, at <http://www.ssc.govt.nz/gateway-lessons-learned-july11> [accessed 14 March 2012].

that audit fieldwork was underway, DMO had not yet undertaken any analysis.

**4.40** However, IPPO has begun to compile what it refers to as a *Gate Review Metric Register*, which is an initial step in such an analysis.

**The Gate Review Metric Register**

**4.41** In late 2011, an internal working group within IPPO undertook an analysis of the characteristics of a selection of Gate Reviews that had taken place from April to November 2011. That analysis recorded certain objective characteristics of each Gate Review and formed some judgements about each. These judgements, made by officers with project management experience, were binary assessments (‘Yes’/‘No’) of whether, for example, the Gate Review had identified if the schedule for the project under review had been unrealistic.

**4.42** IPPO officers advised the ANAO that the metric register was an attempt to discern broad trends from a rudimentary examination of the Gate Review records and that it would be unwise to rely on judgements made, say, for any individual Gate Review. IPPO is seeking to identify underlying causes—this may be more apparent in its lessons learned analysis. Table 4.1 summarises these results, in aggregate, for the first 55 Gate Reviews analysed in this way by IPPO.

**Table 4.1**

**Summary data from DMO’s Gate Review Metric Register**

Question	Proportion of Gate Reviews
Was the scope [of the project] inadequately defined?	51%
Was the acquisition budget inadequate?	36%
Was the NPOC budget inadequate?	27%
Was the schedule unrealistic?	76%
Was there stakeholder recalibration?	35%
Was First/Second Pass delayed?	36%
Was there advice to government?	53%

Source: DMO, January 2012.

**4.43** Although this analysis introduces an element of human judgement (as IPPO acknowledges) it serves to provide a first approximation to the analysis of Gate Review activity.

**4.44** The 55 Gate Reviews analysed by IPPO encompassed reviews of Air, Sea, Land and Joint projects of all ACAT levels, and at various stages in the project lifecycle. The percentages in the table each represent the proportion of Gate Reviews which attracted a positive response to the respective question. The calculation is based on the conduct of 55 Gate Reviews (and projects) for most questions but is based on 22 projects for the question about delaying first/second pass.<sup>76</sup>

**4.45** The ANAO sought an explanation of the meaning of ‘stakeholder recalibration’ in one of the DMO questions. DMO advised that an important aspect of Gate Reviews has been the participation of stakeholders from outside DMO (particularly the Capability Manager and the Sponsor):

The discussion in the Gate Review often ‘recalibrates’ the view of Senior Stakeholders to better understand the issues and challenges faced by the project and to enlist their assistance to resolve matters within their purview. The open and honest discussion also often ‘recalibrates’ the project office to better understand the needs of, and the pressures on, their external stakeholders.

**4.46** It is notable that Gate Reviews are identifying matters in need of attention in projects that are not yet under DMO management, but still yet to receive second pass approval by the Government:

The metrics table suggests that about a third of projects pre First and Second Pass Gate Reviews identify the projects as not ready for consideration and their Capability Gate Review Board is postponed.

**4.47** The most notable finding in the results set out in Table 4.1 is that three-quarters of projects coming before a Gate Review are perceived to have an ‘unrealistic schedule’ and that, after a Gate Review, over half of the projects sought to provide advice to government.

**4.48** A great deal of care is needed in interpreting this data, as IPPO officers have pointed out to the audit team. The data, as it stands, does not explain the underlying causes of these observations. For example, a schedule delay may be the consequence of a range of underlying problems, such as a project having a more developmental character than originally recognised, poor recognition of project interdependencies or the failure of a contractor to deliver according to a

---

<sup>76</sup> These figures flow naturally from the particular stages projects were at when subject to the Gate Reviews analysed by IPPO in compiling this register.

promised schedule. Only by recognising the underlying causes can steps be taken towards controlling such problems. IPPO is looking forward to its further 'lessons learned' analysis to seek that degree of insight. ANAO suggests that the development of a lessons learned mechanism be conducted in a planned and controlled manner which is informed by expert advice and characterised by formally documented decisions.

### **Recommendation No.3**

**4.49** The ANAO recommends that Defence implements a mechanism to systematically collect and analyse data from Gate Reviews relating to the risks that arise in management of capital acquisition projects to enable development of a means of addressing and reducing such risks and incorporates these into its training tools for project managers.

**Defence response:** Agreed.

### **Costs and sustainability of Gate Reviews**

**4.50** The issues that are considered below in relation to the costs of DMO's Gate Review program are:

- the context for considering the costs of the program;
- whether DMO is monitoring the costs; and
- whether there are any unintended costs or other incidental consequences.

#### **Context for considering Gate Review costs**

**4.51** As a means of providing project assurance and informing senior managers of matters that require their attention, the costs of Gate Reviews must be considered in relation to two other factors:

- the costs of the methods of assurance DMO previously used and which have now been replaced by Gate Reviews; and
- any reductions in cost in achieving capability where those reductions flow from Gate Reviews.

**4.52** As noted in Chapter 2, DMO records indicate that it had calculated that ceasing Domain Assurance Boards would save \$525 000 a year. However, that is only one method of assurance. DMO has also had others in place, which

have been replaced by Gate Reviews, such as ‘deep dives’, ‘red team reviews’ and similar approaches.

**4.53** DMO has been monitoring its assurance workload by its divisions over the last three years in all areas of assurance activity. DMO has indicated to the audit team that it can discern in the data a reduction in overall assurance effort. However, as assurance effort includes some major elements that are substantially replaced by Gate Reviews (such as ‘deep dives’ and ‘red team reviews’) and others that are more distinct spheres of assurance activity (such as financial assurance) the ANAO believes that more data and further careful analysis will be required to form a view on this point.

**4.54** Regardless of whether the actual costs of operating assurance processes are greater or less now for DMO than earlier, the more important issue is the cost-effectiveness of these processes. This is a question of whether the resources invested through Gate Reviews have the potential to be returned, or more than returned, through improved project outcomes.

**4.55** The costs of the projects that DMO has under its purview are substantial—there are around 180 major projects, each with capital costs over \$20 million and some major projects costing several billion dollars or more. Therefore, any improvement in project management that shortens a schedule, addresses contingencies or technical risks early, or even simply allows an early decision to close a failing project, could yield benefits or savings that far outweigh the cost of the Gate Review. However, reductions in the costs of achieving capability are likely to be very difficult to estimate, let alone measure or attribute ex post in an uncontested way to a specific Gate Review. This is a matter which can best be examined in the context of a longer-term systematic evaluation of the Gate Review program.

## **Whether DMO has been monitoring costs of Gate Reviews**

**4.56** DMO advise that there have been three major cost considerations:

- one time ‘ramp-up’ and establishment costs. IPPO has budgeted \$1.5 million to cover the cost of contractors and establishing a secure board room;
- public service salaries for ten Australian Public Service positions in IPPO; and
- independent external member costs. These are estimated at \$2.2 million for 2011–12.

**4.57** DMO also advised that:

A cost per gate review analysis was performed in March [2011] and is attached. The analysis looked at the relative costs of various sizes and complexities of review.

**4.58** DMO's analysis estimated the mean cost of Gate Reviews at \$28 800. As noted above, DMO currently manages about 180 major projects (this number is likely to stabilise at 170). A further 20 to 40 pre-second pass projects are also likely to be subject to a Gate Review in a given year, bringing the total number of future Gate Reviews to about 200 a year. Using this figure, and taking into account the requirement to review all major projects at least annually, the annual cost of a full program of Gate Reviews would be around \$6 million a year. This is a substantial figure, representing an additional investment in project management of 0.1 per cent of the total acquisition budget managed by DMO.

**4.59** Defence has advised ministers that it will be difficult to reach the target of one Gate Review per project per year. In response to a request for assurance that all major projects managed by DMO will be reviewed at least once annually, Defence advised:

As at 1 Sep 2011, the expansion of the Gate Reviews was working towards achieving the review of each major project by mid-2012, however this will be very challenging and we will provide further updates as we progress.

**4.60** This raises the question of the sustainability of Gate Reviews. This matter has been under notice within DMO since at least late 2010. A DMO Division Heads' meeting noted that:

[Gate Review] issues include the capacity to conduct the necessary amount of gate reviews for ACAT 1 and ACAT 2 projects and in some respects the ability to 'keep up' this year has been possible because of DCP slippage.

**4.61** DMO acknowledged in October 2011 that its program is challenging:

I do not think we could do it more regularly than we are doing; just a pure resource business. For example, the gate review: 250 projects. To get through a review of each project is obviously five a week. Of that, one is a major project; one is a category ACAT 1 project. Given the sheer volume of work involved in review of where the project is and where its risk register is and what risks it is mitigating, it would be impossible to do it more often than once a year.

**4.62** Even with only 200 major projects on hand (comprising a 'stabilised' number of 170 in DMO management and another 20 to 40 in pre-second pass

status), to conduct a Gate Review for each project annually DMO needs to hold about 17 Gate Reviews a month. A total of 49 (based on ANAO records to 30 December 2012 and internal DMO Gate Review records) had been completed in IPPO's first six months of operation. IPPO advises that, as of 24 April 2012, it had completed 31 Gate Reviews in 2012. This equates to about eight Gate Reviews a month over the ten-month period. DMO has advised that they plan to conduct 125 Gate Reviews in 2011–12.

**4.63** DMO could not provide assurance that the rate of 200 Gate Reviews per year is an achievable outcome given the current resource levels. However, it has indicated that the number of projects requiring a Gate Review may be reduced in some circumstances. An example is where the project is so close to practical completion that the benefits of such a review are judged to be marginal.

**4.64** A separate matter is that demands by Gate Reviews on the time of DMO General Managers has been high, operating at the current rate. It is not clear whether DMO has a strategy for continuing to 'ramp up' the rate of Gate Reviews to the frequency that will satisfy ministerial expectations or even whether this is currently considered practicable.

#### *Cost of development of Gate Review administrative policy*

**4.65** An aspect of the costs of Gate Review management by DMO that warrants attention is the cost of developing Gate Review administrative policy.

**4.66** A contractor developed the original version of DMO's Gate Review administrative policy (approved in December 2009) at a cost of \$67 600. From February 2011, DMO arranged for further work to be done (under a new contract) to revise the original policy document and develop specific procedures for the conduct of Gate Reviews. In the following twelve months, this has cost a further \$240 000. The revised draft of policy was submitted to General Manager Systems for approval in July 2011. However, in November 2011, DMO made a new draft available. Ultimately, the CEO DMO signed a revised policy and DMO released that on 3 May 2012.

**4.67** DMO estimated earlier in 2012 that a further \$100 000 would be spent under an existing contract to finalise the procedural documentation. This brings the estimated externally contracted cost of developing the policy document to over \$400 000. This figure does not take into consideration any investment of the time of APS staff. This means that DMO has spent and continues to spend substantial resources on refining documentation.

## Incidental benefits and risks of Gate Reviews

**4.68** Incidental outcomes can be positive or negative in their effects on the organisation and its processes. In either case they are changes in behaviour or outcome that may impose additional costs or constraints, or confer benefits.

**4.69** From the foregoing analysis and, based on various reports from DMO officers, ANAO has identified the following beneficial consequences:

- *Changes in senior management behaviour*—The extensive involvement of DMO General Managers has reportedly ‘changed behaviour at the top’ by facilitating their involvement in and awareness of project progress in a way that did not previously occur. This is reported to have made the executive into a ‘huge clearing house’ for project information and issues.
- *Stakeholder involvement*—Whereas DMO expected, at the outset, its Gate Review program would be a largely internal DMO affair, it found that capability managers and Defence’s Capability Development Group wanted to participate. This will have promoted opportunities for communication and decision-making by involving more senior level staff than formerly took place at lower-level committees, which are generally attended by representatives or delegates of senior officers.

**4.70** There are also additional risks that may need to be taken into account in the ongoing management of Gate Reviews:

- *Demands on management time*—As a counterpart to the first point, the very involvement of DMO General Managers in Gate Reviews places a substantial additional demand on their time. DMO has recently enabled approximately twenty Band 2 Senior Executive Officers to act as Gate Review chairpersons. This is intended to alleviate the pressure on the General Managers and strengthen the independence of the chair.
- *Misuse of the name ‘Gate Review’*—The perceived merit currently associated with Gate Reviews (especially at ministerial level) may lead to the term ‘Gate Review’ being applied more widely than is appropriate. That is, it may be tempting to label meetings and reviews ‘Gate Reviews’ which are not. This, in turn, could devalue the entire program.
- *Gate Review fatigue*—Unless carefully nurtured, the Gate Review program, like all organisational processes, risks becoming another



process-driven activity conducted only to 'tick the box'. It will be up to DMO management to guard against this and make adjustments from time to time to refresh the process and maintain quality.

**4.71** DMO has demonstrated an awareness of at least some of these risks and opportunities. For example, several people interviewed by ANAO commented on the benefits of the involvement of key stakeholders outside DMO. A presentation to the Divisional Coordinator Meeting held in July 2011 emphasised that the term 'Gate Review' must mean the same thing to all parties, making it clear that the inappropriate use of the term is a risk DMO is aware of.

## Conclusion

**4.72** DMO has declared the Gate Review program successful since its inception in mid-2008. The results for a program such as this are difficult to measure objectively given the qualitative nature of the effects of Gate Reviews on project outcomes and lengthy project lifecycles. IPPO has recently commenced gathering measurement data for a range of factors and the limited analysis possible so far indicates Gate Reviews are helping DMO management to bring problems to attention and facilitating resolution. However, DMO will need to complete substantial further evaluative work before either the underlying issues in acquisition projects can be identified ('lessons learned') or an objective assessment of the success of Gate Reviews can be claimed with certainty.

**4.73** While Gate Reviews are creating a large number of actions intended to reduce risk and improve project outcomes, DMO has not yet established a reliable monitoring system to ensure these actions are completed as planned. The absence of such a system diminishes the value of the program and further inhibits the ability to measure its effectiveness.

**4.74** Maintaining the program within current resource levels presents a challenge for DMO. The program risks a reduction in rigour as the organisation aspires to attain the rate of Gate Reviews suggested by the policy. The work already begun by IPPO on analysis of 'lessons learned' could be of value in justifying any additional resources required to reach its intended activity rate. There is a risk that the program will be weakened if the rigour imposed by IPPO's management of Gate Reviews is not maintained. Further, it is necessary to ensure that regular project management and oversight

processes continue to improve. Gate Reviews are a useful supplement, but no substitute, for effective day-to-day management of projects.

---



Ian McPhee

Auditor-General

Canberra ACT

26 June 2012

# Appendices



# Appendix 1: Gate Review Objectives

Objectives – Overview		
Decision Point	Objectives	Review Timing
PI	Confirm the project scope and dependencies are adequately defined and assumptions documented. Confirm the appropriateness of the acquisition and support concepts and the achievability of the First Pass and YOD timeframes. Confirm the adequacy of the cost estimate and that the spend spread is appropriate. Confirm the feasibility of delivering the proposed solution in the IOC and FOC timeframes. Agree the initial ACAT level. Assign the project to a Group/Division for execution.	At the commitment of DMO resources to prepare for First Pass.
OD	Confirm that capability options, the capability development strategies and any constraints imposed, are clearly understood. Confirm the engagement and support of the relevant stakeholders. Confirm that initial cost estimates are realistic. Confirm that the acquisition strategy for each option minimises risk, achieves optimal commercial leverage and can deliver value for money. Confirm that the project planning will ensure the project is ready for approval when it reaches First Pass.	4-8 weeks after the Capability Options have stabilised and been agreed by the relevant CDG delegate.
1 <sup>ST</sup> First Pass (Mandatory)	Confirm that the scope of each capability option is unambiguously described and the maturity of the technology and the associated technical risks are well understood. Confirm that the Capability Definition Documents (COD) are sufficiently mature to meet the proposed solicitation schedule. Confirm that the acquisition strategy is comprehensive, minimises risk and achieves optimal commercial leverage to deliver value for money. Confirm that the project planning will ensure the project is ready for approval when it reaches Second Pass. Confirm that the schedule is soundly based and achievable. Confirm that cost estimates are soundly based and sufficiently accurate. Confirm the engagement and support of the relevant stakeholders. Confirm whether there are any issues to be brought forward in the Cabinet submission.	6-8 weeks before the CGRB meeting.

Objectives – Overview			Review Timing
2 <sup>ND</sup>	Second Pass (Mandatory)	Confirm that the project scope and technical risks associated with the candidate solution are fully understood and the acquisition concept remains valid. Confirm that the COD adequately defines the requirements for the capability. Confirm that the project planning will ensure the project achieves IMR on schedule. Confirm that the schedule is soundly based and achievable. Confirm that cost estimates are soundly based and sufficiently accurate. Confirm the engagement and support of the relevant stakeholders and that related FIC elements will be in place for Acceptance Into Operational Service (AIOS). Confirm whether there are any issues to be brought forward in the Cabinet submission.	6-8 weeks before the CGRB meeting.
SOL	Solicitation (Mandatory)	Confirm the procurement approach is consistent with the acquisition strategy and reflects the options approved by Government. Confirm that the approach to market will optimise the commercial outcome for the Commonwealth and provide a reasonable basis upon which to engage industry. Confirm that the OCD and FPS are pitched at an appropriate level for the acquisition strategy and are fit for purpose as solicitation documents. Confirm that the solicitation evaluation criteria and methodology ensure a fair and equitable evaluation of all offerings and that the solicitation package seeks the necessary information. Confirm that any proposed government to government acquisition maps to the requirement, assess the risks associated with the foreign government program and confirm whether additional commercial contracts are required to provide a complete support environment. Confirm that the project planning and resourcing will ensure the solicitation and evaluation targets are met. Confirm the engagement and support of the relevant stakeholders.  <i>Note: This review applies to the key procurements for the project involving complex solicitation.</i>	In the early stages of preparation of the solicitation package or Letter of Request (LOR).
NEG	Negotiation (Mandatory)	Provide assurance that the negotiation strategy has goals consistent with Government approval and will deliver an optimal commercial outcome with an acceptable level of risk. Confirm that preparation takes into account risks and issues identified in the Solicitation Evaluation Report, analysis of commercial intelligence and negotiation boundaries are set. Confirm that the proposed schedule, negotiation team membership, approval delegations and administrative planning ensure the negotiation targets will be met.  <i>Note: This review applies to the key procurements for the project involving complex negotiations.</i>	Before approval of the Negotiation Directive.

Objectives – Overview			Review Timing
SIG	Contract Signature	<p>Confirm the project business case remains valid and the procurement is in accordance with the project approval. Confirm that the goals of the Negotiation Directive have been met and the project is ready to enter into contract. Confirm that the project is ready to commence administration of the contract and has the resources in place to meet its commitments, including any initial Government Furnished Material (GFM) deliveries. Confirm that other Defence stakeholders are aware of, and will provide, any resources required to meet Commonwealth contractual commitments. Where applicable, confirm that any systems offered for government to government acquisition align with the original request.</p> <p><i>Note: This review applies to the key procurements for the project involving complex negotiations.</i></p>	Before approval of the Negotiation Report or Letter of Acceptance (LOA).
PER	Performance Review	<p>Ensure the project is on track to deliver as planned, review major risks and assist in the resolution of project issues. Review ongoing stakeholder engagement, product development and production or procurement performance. Ensure that integrated logistics support and verification and validation planning and development activities are progressing.</p> <p>Where a contract is applicable, provide an assurance that the contractor and DMO have committed the necessary resources and confirm that the contractor is conducting their side of the contract in accordance with their approved plans. Confirm that the Commonwealth is effectively monitoring the contractor's performance and meeting contractual commitments.</p>	Usually conducted annually, aligned with a project milestone.
IMR	Initial Materiel Release (IMR)	<p>Confirm that the products and services identified as deliverables for the IMR milestone in the MAA are ready or transition and that the Capability Manager is ready to accept them.</p> <p><i>Note: This review may also be applied to intermediate Materiel Releases between IMR and FMR.</i></p>	In the lead up to IMR, before approval of the IMR Report.
FMR	Final Materiel Release (FMR)	<p>Confirm that all of the products and services within the MAA have been delivered and that appropriate plans and resources are in place to conduct an orderly closure of the project.</p>	In the lead up to FMR, before approval of the FMR Report.

Objectives – Overview			Review Timing
Decision Point			
MAA Closure (only if disputes exist regarding closure)	Confirm the status of Technical and Financial Completion as perceived by all parties to the MAA. Determine actions and matters for consideration that will resolve disputes. <i>Note: Any party to the MAA can seek to put a case for closure to a Gate Review Board for decision and/or guidance.</i>		When determined that Technical or Financial Completion is in dispute.
EXC Exception Review	May be triggered by Government or senior management direction, identification as a potential Project of Concern or where a project breaches Early Indicator and Warning thresholds. May also be triggered by a line management/Project Manager request based on issues such as poor contractor or Commonwealth performance, a contractual dispute or other major issue.		As required.

Source: DMI (Exec) 00-0-009 Version 1.0 Gate Reviews for DMO Projects, 3 May 2012.



## Appendix 2: Key dates in development of DMO Gate Reviews

Date	Event
March 2008	Government cancels the <i>Super Seasprite</i> Project.
May – September 2008	Mortimer review team holds discussions with senior DMO officers as part of the <i>Defence Procurement and Sustainment Review (Mortimer Review)</i> .
10 July 2008	Senior DMO officers inform Joint Standing Committee on Foreign Affairs, Defence and Trade (Defence Subcommittee) that DMO is introducing Gate Reviews.
4 Aug 2008	DMO holds a Gate Review of the SEA 1654 Ph 2A (HMAS Sirius) project.
25 Sept 2008	DMO holds a Gate Review of LAND 121 Overlander Program project.
September 2008	<p>Report of Mortimer Review published.</p> <p><i>DMO is presently implementing 'gate reviews' of projects to supplement 'red team' and 'deep dive' reviews that have been operating over the past few years. ... The Review believes that the 'gate review' process should be expanded' (p. 36).</i></p> <p>The Review makes no recommendations about Gate Reviews but suggests they be expanded. Government response to the review does not mention Gate Reviews.</p>
17 Oct 2008	<p>DMO reports in 2007–08 Defence Annual Report that:</p> <p><i>The DMO has implemented a program of Gate Reviews to examine projects at nine key milestones, or 'gates', across the life of a project. The review board for the DMO's most complex high-value projects comprise its three General Managers, DMO executives and senior representatives from the Services and Capability Development Group. The projects selected for review at a particular gate will be based on a risk assessment' (vol 2, p. 90).</i></p>

Date	Event
27 Nov 2008	DMO reports in 2007–08 DMO/ANAO <i>Major Projects Report</i> that:  <i>DMO has recently introduced a system of reviews at specific 'Gates' in the capability lifecycle' (p. 46).</i>
Early 2009	<ul style="list-style-type: none"> <li>• DMO conducts an internal review of its assurance framework.</li> <li>• CEO DMO announces that Domain Assurance Boards will cease operation from 30 Jun 2009.</li> <li>• CEO DMO asks DMO's Assurance Board secretariat team to support Gate Reviews. However, when seeking advice on how it could assist in the process, including sighting the Gate Review policy, schedule and quantum, the team notes that there is no agreed Gate Review methodology and no policy.</li> </ul>
19 March 2009	Senior DMO officer informs Joint Committee of Public Accounts and Audit:  <i>We now have a series of gate reviews which we initiated about nine months ago.</i>
April 2009	DMO engages a consultant to undertake an analysis of DMO Gate Reviews and draft a Defence Materiel Instruction (DMI). Consultant is not required to consider how Gate Review process interacts with existing DMO policies.
May 2009	DMO circulates draft Gate Review DMI for comment.
30 June 2009	DMO ceases operating its Domain Assurance Boards.
August 2009	DMO establishes a Gate Review Directorate within its Major Program Control Branch.
9 Sept 2009	DMO holds its first Gate Review that complies with draft Gate Review policy – First Pass for project SEA 1442 Phase 4.

Date	Event
Late 2009	<p>DMO reports in 2008–09 Defence Annual Report that:</p> <p><i>As a result of recommendations from the recent Mortimer Review and following an internal DMO review, the DMO has decided to incorporate the function of Domain Assurance Boards into strengthened Gate Reviews—to be known as Gate Review Assurance Boards (GRAB). These Boards, which will commence operation from 1 July 2009, will conduct formal project reviews before selected key project milestones. It is envisioned that reviewing projects at key points—or Gates—will enhance the management and assurance of DMO projects (vol 2, p. 84).</i></p>
24 Nov 2009	<p>DMO states in 2008–09 ANAO/DMO Major Projects Report that:</p> <p><i>DMO has also instituted Gate Review Assurance Boards ... (p. 54).</i></p> <p><i>In addition to the two-pass Government approval process, the DMO's Gate Review Assurance Board process now comprehensively examines projects at critical milestones or gates in the pre- and post-government approval phases of a project to ensure that DMO has the best information available for Government to make an informed decision (p. 120).</i></p> <p><i>The recently introduced Gate Review Assurance Boards provide independent assurance by critically examining all aspects of projects at pre-determined milestones (p. 124).</i></p>
16 Dec 2009	<p>CEO DMO Gate Review approves Gate Review DMI. This DMI states that every major capital project will undergo periodic Gate Reviews approximately annually.</p>
December 2009	<p>CEO DMO writes in the DMO Bulletin that:</p> <p><i>I have instituted the 'DMO Gate Review Assurance' process which incorporates both the Mortimer Review recommendations and the functions previously undertaken by the DMO Assurance Boards.</i></p>

Date	Event
19 Nov 2010	<p>DMO reports in 2009–10 Defence Annual Report that:</p> <p><i>Following on from the Mortimer Review, the Gate Review Assurance Boards commenced operation in July 2009 focusing on selected high value and high risk projects ... Given the success of this methodology, Gate Reviews are in the process of being extended to all major projects (vol 2, p. 126).</i></p>
30 Nov 2010	<p>ANAO states in 2009–10 DMO/ANAO Major Projects Report that:</p> <p><i>DMO has advised that some twenty projects have been subjected to GRAB reviews, including five in the 2009–10 MPR (p. 58).</i></p> <p>DMO states in 2009–10 DMO/ANAO Major Projects Report that:</p> <p><i>The GRAB process is a proactive activity that has led to the early identification, intervention and resolution of risks and issues across numerous projects in DMO. Given the success of this methodology, the GRAB process will be extended to all major projects (p. 46).</i></p>
6 May 2011	<p>Minister for Defence announces that:</p> <p><i>As foreshadowed in the 2009–10 Defence Annual Report and the 2009–10 Australian National Audit Office Major Projects report, Defence will expand the use of the full diagnostic review of projects, known as 'Gate Reviews'. Gate Reviews commenced in 2009 for selected high value and highly complex projects and have proven very effective in the early identification and resolution of problems. All major projects managed by the Defence Materiel Organisation will now undergo at least one Gate Review per year.</i></p>
July 2011	<p>DMO establishes its Independent Project Performance Office (IPPO) and centralises management for Gate Reviews within this office.</p>

## Appendix 3: Details of Gate Reviews attended by ANAO

Project	ACAT	Gate Review Type	Project of Concern	Gate Review chaired by	No. of external board members	Agendum paper written by	Outcomes sent to
<b>AIR 9000 Ph 2,4,6</b> <i>Multi-Role Helicopter (MRH-90) Program</i>	II	Exception	Became a POC following the Gate Review	Deputy CEO DMO <i>Not a line manager for project</i>	2	IPPO Senior Project Analyst	<b>General Manager Systems</b> (senior line manager) for noting <b>A/CEO DMO</b> for agreement
<b>JP 154 Ph 3A</b> <i>Counter IED – Ningau</i>	III	Combined First & Second pass	No	Head, Land Systems Division <i>Line manager for project</i>	2	IPPO Senior Project Analyst	<b>General Manager Systems</b> (senior line manager) for agreement
<b>DEF 500 Ph 1</b> <i>Land Electronic Warfare Capability</i>	III	First Pass	No	Head, Electronics Systems Division <i>Line manager for project</i>	1	External board member	<b>General Manager Systems</b> (senior line manager) for agreement
<b>AIR 5431 Ph 1</b> <i>Deployable Air Traffic Management &amp; Control Systems</i>	III	Pre-solicitation	No	Head, Aerospace Combat Systems Branch <i>Not a line manager for project</i>	2	IPPO Project Analyst	<b>Head, Surveillance &amp; Control Branch</b> (line manager) for noting <b>General Manager Systems</b> (senior line manager) for support <b>A/CEO DMO</b> for agreement

Project	ACAT	Gate Review Type	Project of Concern	Gate Review chaired by	No. of external board members	Agendum paper written by	Outcomes sent to
<b>JP 1 Ph R</b> <i>Harpoon Block II Upgrade</i>	III	Exception (EI&W)	No	A/General Manager Programs <i>Not a line manager for project</i>	1	IPPO Senior Project Analyst	<b>General Manager Systems</b> (senior line manager) for noting <b>A/CEO DMO</b> for agreement
<b>LAND 112 Ph 3</b> <i>ASLAV- Surveillance</i>	III	Performance	No	Head, Land Engineering Agency (Branch) <i>Not a line manager for project</i>	1	External board member	<b>General Manager Systems</b> (senior line manager) for noting <b>A/CEO DMO</b> for agreement
<b>JP 2060 Ph 2B</b> <i>Deployable Health Capability</i>	III	Performance	No	A/General Manager Programs <i>Not a line manager for project</i>	2	External board member	<b>General Manager Systems</b> (senior line manager) for noting <b>A/CEO DMO</b> for agreement
<b>JP 129 Ph 2</b> <i>Tactical Unmanned Aerial Vehicle</i>	II	Initial Materiel Release	Yes	A/General Manager Programs <i>Not a line manager for project</i>	2	Author not identified	<b>General Manager Systems</b> (senior line manager) for noting <b>A/CEO DMO</b> for agreement

## Appendix 4: Case Studies

### Case Study 1

#### LAND 106—M113 Upgrade

##### Origins of the project

1. M113s are a family of tracked vehicles, comprising seven variants, the most common of which is the Armoured Personnel Carrier. The vehicles are the Australian Defence Force's only tracked vehicle used for transporting and supporting infantry in battle. Defence has been upgrading 431 M113s, replacing an ageing fleet of over 700 M113s that first saw service during the Vietnam War in the 1960s, and which were withdrawn from service from 2006. The planned project cost is \$884 million. This does not include a substantial part of the upgrade—the preparation and lengthening of the hulls—the cost of which is covered under a separate contract which sustains Army vehicles.
2. Defence's proposal to upgrade the M113 started in 1992 as a minor upgrade pending the development and production of a replacement. However, substantial scope changes transformed the minor project into a major upgrade of 431 vehicles. The first 16 upgraded vehicles were delivered in November 2007 and, by 25 November 2011, Defence had accepted 326 upgraded vehicles.
3. The project has been substantially delayed. The causes can be traced to the project's origins and include underestimation of the engineering risks, deficient requirements specification and poorly formed contract terms.

##### *M113 as a Project of Concern*

4. Defence's Projects of Concern List is designed to place projects which are experiencing difficulties under close scrutiny from senior management to help to identify and resolve problems. A decision to place a project on the list rests with government following consideration of advice from Defence.
5. In December 2007, LAND 106 was identified as a Project of Concern because of technical problems and associated delays. DMO subsequently recommended (and received ministerial approval for) removing the project from the list in May 2008.

##### M113 Gate Reviews

6. In February 2011, DMO's Head, Land Systems, the Division Head responsible for the project, advised ministers of further delays. In response, the

Minister for Defence asked DMO whether the project should be restored to the Projects of Concern list. The Minister for Defence Materiel asked whether a Gate Review was worth doing at this time, as had been done for the MRH-90 helicopter program (see Case Study 3). DMO responded by advising ministers that a Gate Review had already been held in October 2010, which had endorsed a plan to renegotiate the contracted delivery date, and that another Gate Review in May 2011 would determine the suitability of a Contract Change Proposal and make a recommendation to government on whether the project should be restored to the Projects of Concern list.

7. In fact, the October 2010 review had not been a Gate Review: it was a Budget Estimates Review conducted in November 2010. This review consisted of a written analysis of the project, prepared by the project director for his Division Head.

8. At this time, some of DMO's Gate Reviews were centrally coordinated by the Major Program Control Branch and some were coordinated by DMO's divisions. This arrangement led to Gate Reviews being conducted with differing levels of rigour, and poor regulation over what constituted, or should be referred to as a 'Gate Review' across DMO. This, in turn, led to DMO referring to the November 2010 Budget Estimates Review for the project as a Gate Review in a Ministerial Submission and IPPO subsequently including this review in its list of completed Gate Reviews.

## **5 August 2011 Gate Review**

9. DMO conducted the first Gate Review for this project—originally scheduled for May 2011—on 5 August 2011. The objectives for this Gate Review were to:

- ensure that the project is on track to deliver as planned, review major risks, and assist in the resolution of project issues;
- seek endorsement of the Contract Change Proposal (CCP) as the way forward; and
- consider whether to recommend that Land 106 be restored to the Projects of Concern List.

10. This Gate Review was coordinated by IPPO. It included an external member on the Gate Review Assurance Board, who conducted and documented a preliminary analysis of the project. Originally, two external members were to be involved but, in the event, only one undertook the task.



The meeting outcomes were documented and signed by the chair and the project's senior line manager, General Manager Systems. However, the Gate Review Assurance Board was chaired by the Division Head responsible for the project, and the three DMO officers who made up the board were internal to the Land Systems Division. Two of the board members delegated their attendance to more junior staff.

11. This Gate Review had been scheduled as part of the Gate Review forward work program and the Gate Reviews Directorate issued an email notice of the need to prepare for it to relevant parties in DMO on 16 June 2011.

12. In the lead-up to this Gate Review, correspondence between the Branch responsible for the management of the M113 project and IPPO shows that the Branch sought to direct the focus of the Gate Review to seek endorsement for the draft Contract Change Proposal (CCP) in readiness for August 2011 contract renegotiation. The Director-General Land Manoeuvre Systems (DGLMS) stated that 'the purpose of the 6 Jul GATE Review is "to review the CCP negotiated with [the supplier] to re-baseline the M113 production schedule and to assess whether the project warrants being managed as a Project of Concern"'. He also sought to emphasise that the Gate Review was 'not a routine Gate Review' and that its purpose was to 'provide independent assessment of the CCP to achieve the delivery schedule.' DGLMS directed the Gate Reviews Directorate to 'reshape/redefine' the Gate Review as he had set out.

13. This attempt by the Project's Line Management to direct the focus of that Gate Review raises three concerns:

- (1) First, a Gate Review that is confined in focus to assessing a CCP (or any other specific task) introduces risks. Gate Reviews have always been defined and taken as being concerned with the well-being of the entire project at a particular point in its lifecycle. Further, even if scope were to be limited, it should not be at the discretion of the relevant project management hierarchy. This would be inconsistent with DMO's express intention that the process was to 'thoroughly flush out all of the issues'.<sup>77</sup>

---

<sup>77</sup> Evidence provided by the CEO DMO to the Joint Standing Committee on Foreign Affairs, Defence and Trade, Defence Subcommittee, Review of the Defence Annual Report 2009–10, Hansard, 25 March 2011.

- (2) Second, even if the Gate Review found the CCP had merit, this might not be the only threat to the schedule. Again, a narrow focus adds risks.
- (3) Third, the additional purpose for the Gate Review was to address the Minister's question as to whether the project should be returned to the Projects of Concern list. Threats to the schedule are not the only problem that can lead to a project becoming a Project of Concern.

14. Gate Reviews are broad-ranging and exploratory in nature, seeking to identify potential risks, not a directed mission with a defined goal. However, the DGLMS advised the Gate Review Directorate that 'The End State I seek from the GATE Review is agreement to the CCP ... and approval to proceed to signature. ... Please take steps to reshape/redefine the 6 Jul GATE Review as described above.'

15. In response, the Director, Gate Reviews, in the (then) Major Program Control Branch warned the DGLMS of the risks in proceeding as he had directed:

I understand that mid August is the target date for signing the CCP. Holding a Gate Review so close to signature would usurp the independence of the review in that any unexpected outcome will cause delay. That can place unreasonable pressure on members to agree against their better judgement. Gate Reviews should be conducted in the lead-up to the milestone allowing adequate time for corrective action.

16. ANAO analysed the documentation supporting this Gate Review, including the preliminary analysis and the outcomes from the Gate Review meeting. The preliminary analysis focused on the proposed Contract Change Proposal, and the impact this CCP would have on the final delivery schedule. Important issues such as system safety and technical issues were given minimal attention in both the preliminary analysis and in the recommendations made by the Gate Review Assurance Board.<sup>78</sup> DMO later advised that 'Review of these items was considerable by both the independent board member and during questioning during the Gate Review' However, this discussion was not documented in either the agenda paper or the outcomes

---

<sup>78</sup> At this time, DMO's draft Gate Review policy stated that 'Every Gate Review Board will consider materiel system safety, environmental, and occupational health and safety aspects of the project.' Draft DMI (A&S) 14-0-003 *Gate Reviews for DMO Projects*, dated July 2011.

document. In particular, the following three matters were either not addressed or insufficiently addressed in the preliminary analysis and meeting outcomes.

*Armoured Personnel Carrier Brake system failure*

17. A substantial failure of an M113 brake system led to a grounding of the entire M113 fleet on 6 April 2011. As at May 2011 over a quarter of vehicles inspected had brake system faults. This issue was not addressed in either the preliminary analysis or the meeting outcomes.<sup>79</sup>

*Government Furnished Equipment (GFE) provision*

18. The preliminary analysis stated that DMO had accepted approximately 90 vehicles out of 270 with missing GFE components and that these vehicles had not been issued to Army.<sup>80</sup> Therefore, 30 per cent of vehicles which had been accepted and paid for at the time of the Gate Review were not available for use by Army. The project had been accepting vehicles with missing GFE components for some time, since at least before the Budget Estimates Review in November 2010. The preliminary analysis also explained that the GFE components are to be retrofitted, when they become available, onto the vehicles under a separate contract at Defence's expense.<sup>81</sup>

19. The Gate Review Assurance Board meeting outcomes report that the project team was intensely managing the GFE issue and directed the project team to provide Head, Land Systems with their plan for doing this. The outcomes do not comment on whether the Board considered the overall impact of the missing GFE components on the cost of the project or on the capability delivered to Army, except to say that many of the GFE deficiencies are minor but a few are significant.

---

<sup>79</sup> DMO later advised that 'This technical fault was discussed in the Gate Review and during preliminary analysis' and that 'this issue was under rectification by the time of the Gate Review' However, this discussion was not documented in either the agendum paper or the outcomes document.

<sup>80</sup> Items of GFE missing from vehicles include communications systems, periscopes and bullet proof glass to protect sights.

<sup>81</sup> DMO advised that as Defence was unable to supply the necessary GFE, the vehicles were accepted with GFE deficiencies to avoid possible delay claims by the contractor.

## *Reliability*

20. The number of vehicles located at the School of Armour<sup>82</sup> which were classified as 'fully functional'<sup>83</sup> decreased from an average of 62 per cent in 2008 to 38 per cent in 2010 and was reported at 39 per cent in March 2012. Defence advise that, at the time of the Gate Review, 75 per cent of the M113 fleet was classified as either fully functional or restricted use. Both the preliminary analysis and meeting outcomes stated that 'reliability is reported as 'good', but neither provide a basis for this assertion. Despite noting that reliability is good, the Board directed that one of the board members conduct a further review of the project's outstanding technical issues to assure the chair that 'management action is appropriate.'

21. Overall, the outcomes of the Gate Review reported that the project is progressing well and recommended that:

- the Contract Change Proposal to revise the final delivery date be approved;
- the Minister be updated on the status of the project; and
- the project *not* be restored to the Projects of Concern list as this was not warranted.

22. The Gate Review outcomes were endorsed by General Manager Systems DMO on 30 August 2011 and the Contract Change Proposal was signed the same day.

## **Conclusion**

23. This case study draws attention to two matters in DMO's management of Gate Reviews: first, the lack of regulation of the Gate Review program before IPPO took over managing it in July 2011. In particular, during this period there was lack of regulation over what constituted a Gate Review and when the term should be used. This contributed to DMO advising the Ministers

---

<sup>82</sup> The School of Armour is responsible for training soldiers in the operation of armoured vehicles. Although vehicles have also been issued to 7 RAR, their usage was low compared to that of the School of Armour. Vehicle analysis was therefore based on the School of Armour's fleet as it would provide a more accurate picture of how the vehicles perform under combat conditions.

<sup>83</sup> Defence Maintenance records classify vehicles as 'Fully Functional'; 'Restricted Use'; or 'Unserviceable'. 'Restricted Use' refers to a range of vehicle defects which require various levels of maintenance or repair.

for Defence and Defence Materiel that a Gate Review had been conducted in October 2010 when, in fact, it had not.

24. The second matter is the weaknesses introduced when a Gate Review Assurance Board lacks sufficient independence and seniority, particularly when reviewing long-running and complex projects. While the 5 August 2011 Gate Review was managed by IPPO and this mitigated the risk associated with the project branch seeking to direct the focus and outcome of the Gate Review, the Gate Review Assurance Board lacked the independence and seniority to challenge the project sufficiently. The Board included only one external member, the other members were DMO officers internal to the division in which the project resided, two of which delegated their position to more junior staff, and the chair of the Board was a senior line manager for the project. From the documentation available, the Gate Review Assurance Board did not sufficiently address important system safety and technical issues with the project during this Gate Review.

## Case Study 2

### LAND 112 PHASE 4—ASLAV ENHANCEMENT

#### Background and Status of the ASLAV Enhancement Project

25. The Australian Light Armoured Vehicle (ASLAV) is a mobile, amphibious eight-wheeled armoured vehicle for reconnaissance and surveillance. Under Phase 2, some 113 ASLAVs were first acquired between 1992 and 1997. Phase 3 acquired a further 144 vehicles.

26. The Government gave first-pass approval for LAND 112 Phase 4 in October 2006 to provide a range of additional capabilities for the ASLAV. The original concept for ASLAV Phase 4 was to provide the operationally proven solution known as the Ballistic Protection Upgrade Package (BPUP) and belly plate. However, during pre-second pass negotiations, Defence pursued a different solution known as Enhanced Survivability Kit (ESKi) which included enhancements to the original BPUP system. This ESKi system was to be provided via a sole source procurement based on a proposal which included a range of additional Military off the Shelf (MOTS) requirements. This was effectively a change in scope from a MOTS solution to a developmental solution (although this fact was not recognised or articulated in relevant documentation until late in 2010). The amended Acquisition Strategy specified two sole source contracts with two separate companies.

27. In late 2009, the Defence Science and Technology Organisation (DSTO) drafted a technical risk assessment based on oral briefings and information relating to the original BPUP solution, and sent it to CDG and DMO for comment. This assessment rated the risk as low as it was a proven MOTS solution which had been used in operations. Neither CDG nor DMO commented on DSTO's risk assessment; and the new solution involving the ESKi and the belly plate was not subjected to a technical risk assessment before Defence sought second-pass approval from government.

28. Defence's second pass approval submission referred to the low technical risk rating which DSTO had given to the BPUP solution although a different solution was now being sought. The second-pass approval submission also understated the gross weight of the vehicle when modified. Defence estimated the vehicle weight with the ESKi, the additional MOTS requirements and the belly plate would be 16.6 tonnes. In fact, this figure did not include all the additions, which increased the gross vehicle weight to 18.5 tonnes, and is unacceptable for vehicle performance.

29. On 26 May 2010, the Government gave second-pass approval for installation of the ESKi on 113 vehicles and the 70 additional belly plates at a cost of \$302.8 million. This approval was based on advice that this was a MOTS solution with low technical risk. On 25 October 2010, DSTO received advice on the technical details of the ESKi and conducted a Technical Risk Assessment based on that data which increased the risk rating to medium/high.

30. Defence commenced contract negotiations on 7 December 2010. On 16 January 2011 Defence advised ministers of the errors contained in the second-pass submission. It also advised the ministers of problems with the contract negotiations and doubt over the ability to meet the required schedule. Defence proposed an interim solution to increase protection for the ASLAVs by equipping in-theatre vehicles with the mine blast belly plates only. This solution was described as the best underbelly enhancement that could be completed in the short term. A Foreign Military Sales order was placed for 70 belly plates at a cost of \$2 million to be available in theatre in July 2011.

31. In October 2011 DMO described the status of ASLAV enhancement accordingly:

Under this project, 30 mine blast belly plates have been fitted to operational vehicles in the [Middle East Area of Operations]. Under a separate initiative, ballistic protected drivers' seats were installed in September 2011 on the Type 1 - 25 vehicles on operations. The DMO has also established the ASLAV

Integrated Project Team, which brings together Defence and Industry stakeholders, to investigate and implement other options to improve survivability and operational viability over the life of the ASLAV fleet.<sup>84</sup>

32. In November 2011, Defence advised Government of the extreme risk of continuing with the project in its current form. Government decided to suspend contract negotiations, close the project and transfer the remaining funds of over \$280 million to another LAND project. Government cancelled the project on 5 December 2011. The public funds expended on the project are estimated at \$25 million, with further termination costs estimated at \$11 million. One company involved in the project informed the ANAO that it 'incurred costs of up to \$5 million for capability establishment to prepare for this project and subsequent reversal of this restructure, without compensation.'

### 5 March 2010 Gate Review

33. DMO held a Gate Review on 5 March 2010 to determine the project's readiness for second-pass consideration by Government. DMO's Gate Review Directorate completed a preliminary analysis of the project before the meeting and documented the findings in an agendum paper. This paper focused on the challenges of delivering the project within the required timeframe and budget particularly given the commercial constraints imposed upon it by intellectual property ownership issues. The paper gave the history of the project's changing requirements and contracting strategies and raised other matters such as configuration management, the state of the ASLAV vehicles, and project office staffing. It referred to the engineering complexity of installation and described it as 'effectively a major rebuild and significantly transforms the vehicle.'

34. Significantly, it summarised the position thus:

A feasible project and, in normal circumstances, medium risk, given the complex range of activities and the scale of the engineering transformation of the vehicle. However, as the schedule is aggressive with significant pressure being applied by the customer, the project could be considered high risk. The project office is visibly under pressure.

---

<sup>84</sup> Senate Standing Committee on Foreign Affairs, Defence and Trade Senate Supplementary Estimates, 19 October 2011, Questions Taken on Notice, Question 119.

With its finite resources the project is making every endeavour to accelerate the schedule. However, care will be required to ensure that this enthusiasm is tempered so as not to over-commit and have the effect of actually slowing the project down.

35. Notably, the agendum paper did not identify the following underlying problems with the project:

- reliance on a Technical Risk Assessment which did not reflect the current proposal;
- the incorrect vehicle weight estimate; and
- uncertainty over who would accept the Design Authority role for the project.

36. One of the Gate Review Assurance Board members noted later that the Board had received incorrect advice on each of these matters, which only became clear after second-pass approval and the commencement of contract negotiations. One company involved in the solicitation process advised ANAO that they believe the information provided for consideration was 'not scrutinised appropriately'.

37. Notes prepared by a senior DMO officer in March 2011 concluded that much of the information and data which had informed this Gate Review, supplied by Capability Development Group, had been 'taken on face value'. The officer also formed the view that project line management 'were advocates for the project [and] dominated all responses to the Board – had the effect of stifling debate and playing down all risks.'

38. One company involved in the project suggested that there should be more involvement of the contractor in Gate Reviews to ensure risks are captured and mitigated.

39. In the event, the March 2010 Gate Review found that (among other things) project risks were defined and manageable and recommended the project proceed toward second-pass consideration.

40. A review of the DSTO Technical Risk Assessment during preliminary analysis would have shown that it did not relate to the current proposal and required revision to reflect the amended solution.

41. On the face of it, this Gate Review met the essential characteristics listed in Chapter 3 of this report. However, it failed to sufficiently challenge



the validity of existing documentation that identified the project risk as low, and supported the assumption that the project was executable.

### **30 March 2011 Gate Review**

42. DMO held a second Gate Review of the project on 30 March 2011 to determine whether the project was ready to proceed to sign the negotiated contract. The outcomes from this review reveal that significant information had come to light since the March 2010 Gate Review, some of which had been advised to ministers in January 2011. Specifically, DMO now knew that the gross vehicle weight had been underestimated; the proposed solution involved extensive development; and there were problems with the role of Design Authority and access to intellectual property. The outcomes of this Gate Review also highlight other issues such as delays in design work and possible cost implications of obtaining the necessary IP rights. In light of these factors the Gate Review Assurance Board identified the project risk as extreme and recommended that the contract in its present form should not be signed.

43. This Gate Review was not informed by a documented independent analysis of the project. However, it is apparent that a range of issues were widely known by the Board and other attendees as the meeting was presented with a mature understanding of the risks associated with going into contract for the ESKi solution and the Board made recommendations based on knowledge of those risks.

### **Conclusion**

44. Analysis of the documentation for the two Gate Reviews held for this project show that they were largely conducted in accordance with the relevant policy, the exception being the lack of a documented preliminary analysis for the March 2011 Gate Review.

45. The project has been characterised by changing circumstances, urgency, and a reliance on minimal data. The point of failure arose when Defence decided, without authority, to pursue a different option from that approved by government at first-pass, without assessing the complexities involved. Schedule risk was wrongly identified as the most important issue and managed accordingly from scarce resources. Technical and commercial risks were not adequately addressed. This was evidenced by the ongoing reliance on a technical risk assessment based on the 2007 requirement to describe the risk for the earlier MOTS solution.

46. The preliminary analysis conducted for the earlier, March 2010 Gate Review recognised the complexity of the proposal but did not highlight the lack of attention assigned to technical risk. Likewise the review's outcomes indicate that the Board did not discern that the combination of changing the project's requirements and technical and commercial complexities facing the project should be investigated further. Thus, the project continued for a further 12 months, pursuing a flawed proposal, before being cancelled with unnecessary expenditure of over \$35 million. Defence advised that this figure represents eight per cent of project funds which falls under the 15 per cent cap suggested by Kinnaird as reasonable expenditure to determine risks associated with contract signature.

## Case Study 3

### AIR 9000 PHASE 2, 4, 6—MRH-90 helicopter

#### Origins of the MRH-90 Program

47. The AIR 9000 Phase 2 project was originally approved to provide twelve additional troop lift helicopters to augment Army's Black Hawk fleet. Defence selected a preferred tenderer in 2004. In 2005, the Government approved the expansion of this order to acquire a total of 46 aircraft to replace the Army Black Hawk and Navy Sea King fleets. This would be funded through AIR 9000 Phases 4 and 6, with an approved project value for the three phases of over \$3.5 billion. Planned Initial Operational Capability (IOC) was to be June 2010 for Navy equipment and April 2011 for Army. These dates were not achieved.

48. The business case for Phases 4 and 6 portrayed a low-to-medium project risk, acquiring an off-the-shelf product with a low risk schedule. However, the MRH-90 was actually a new aircraft and had not seen operational service at the time of contracting. Defence has attributed delays to a number of factors, including aircraft immaturity and technical problems.

49. Thirteen aircraft—which did not meet Defence requirements—were conditionally accepted before November 2010. These aircraft are to undergo a retrofit program to achieve the final contracted configuration. From 22 November 2010 acceptance of aircraft effectively ceased as the production aircraft failed to meet the Defence specification. Following this, the contractor continued to produce MRH-90 helicopters and store them pending acceptance,

receiving 'earned value' payments from Defence of \$14 million for each aircraft, approximately 40 per cent of the total value.

## **18 February 2011 Gate Review**

50. Defence's Projects of Concern List is designed to place projects which are experiencing difficulties under close scrutiny from senior management to help to identify and resolve problems. A decision to place a project on the Projects of Concern list rests with government following consideration of advice from Defence.

51. On 18 February 2011, Defence held a Gate Review to: review the status and performance of the MRH-90 program; consider the program as a possible Project of Concern; and develop a remediation plan for it.

52. Before the Gate Review, an IPPO project analyst undertook a comprehensive preliminary analysis and prepared an agendum paper. The paper identified a number of problems facing the program concerning capability definition, technical compliance, contractual weaknesses, stakeholder expectations, availability of accepted aircraft and related support.

53. The Gate Review Assurance Board met several times during the course of this Gate Review. The Board found that the MRH-90 acquisition had been approved and contracted on the basis that it was an off-the-shelf aircraft, which was incorrect. The Board also found that the program was more than twelve months behind schedule, aircraft availability was low and there were technical and reliability uncertainties. The Board was concerned that, with the significant number of strategic, commercial and engineering issues to be resolved, the program's revised Initial Operational Capability dates would not be achieved, and made a number of recommendations aimed at remediating the situation. The Board raised 18 action items. One of these involved renegotiating the acquisition and sustainment contracts, commencing with a 'Deed' to be agreed with the contractor by the end of June 2011. This Deed was intended to provide a framework for future contract change proposals.

54. The Board noted that the indicators for making the program a Project of Concern had been triggered, but Defence could best improve its position with the contractor by delaying this decision until September 2011.

55. This Gate Review incorporated the three essential characteristics identified in Chapter 3, and aligned with relevant policy.

## **September 2011 Gate Review**

56. On 22 September 2011, DMO conducted an Exception Gate Review to assess the program's progress against the remediation strategy developed by the February 2011 Gate Review Assurance Board and to consider the need to list the MRH-90 program as a Project of Concern.

57. Before the Gate Review meeting an IPPO project analyst conducted another comprehensive preliminary analysis and prepared an agendum paper.

58. The Gate Review meeting did not follow up the 18 action items raised at the previous Gate Review meeting. However, the Gate Review briefing pack distributed in preparation for the September 2011 included an action item situation report noting that only six of the 18 had been completed, nine were listed as ongoing and three were to be completed following Deed negotiation.

59. One of the action items from the February 2011 Gate Review was to negotiate a contract deed by June 2011. However, once negotiations began, it became apparent to the project team that the contractual complexities and challenges involved could not be resolved in the timeframe allocated. In May 2011, the project team changed their approach, opting to divide the issues between two deeds. Negotiations for the first and less complex Deed were to be agreed on 27 September 2011.

60. The Board recommended signing the first deed and proceeding with the project team's plan to remediate the program, which would be overseen by a three-star steering group. In the closed session following the meeting the Board discussed whether Defence should advise the ministers to consider the program as a Project of Concern and decided that it should.

61. ANAO attended this Gate Review meeting as observers and found the discussion to be thorough and comprehensive. The meeting was well attended by individuals with sufficient knowledge and authority to make decisions and to direct the required action. Analysis of the records relating to the Gate Review found that it incorporated the three essential characteristics listed in Chapter 3 of this report, and was aligned with relevant policy.

## **Conclusion**

62. The fact that this program was being considered as a Project of Concern before the first Gate Review suggests that senior management was already aware of the problems the MRH-90 program was facing. This means that the

Gate Reviews themselves did not identify these problems, but they did act to formalise the reporting of these problems and facilitate remediation activities.

**63.** ANAO's analysis of the supporting documentation for both Gate Reviews and its observations of the September meeting, indicate that both Gate Reviews for the MRH-90 program were generally conducted in accordance with DMO policy and are examples of a well-managed review process that combined competent analysis and external scrutiny.

**64.** At these Gate Reviews, DMO formally identified serious issues, provided additional assistance for specific tasks such as contracting expertise, allocated remediation activities and provided advice to senior executive and government.

**65.** ANAO noted that the September Gate Review was resource intensive with the Board meeting multiple times and involving several senior executives. The effort and associated costs required to manage the Gate Review program is addressed in Chapter 4.

**66.** ANAO also noted that the large number of complex action items that were allocated at the February 2011 Gate Review were not completed in the expected time frame suggesting that, at that time, the Board may not have been sufficiently aware of the complexity of the tasks they were directing.

## Appendix 5: Evaluation of the Gate Review Program

### 9 June 2011

Outcome detailed at 9 June 2011	Activity Towards Completion
Strengthened conflict of interest clauses required for non APS Gate Review Assurance Board members.	2011–12 Letter of Engagement template has been updated with strengthened conflict of interest clauses.
Documentation of external board members' selection and training.	DMO advise all new external members undergo a three day training workshop which is often conducted by current external members.
The number of external board members per review will be increased to two.	The July 2011 draft policy specifies two external members for each Gate Review. This has been achieved for most Gate Reviews held since July 2011 (see Chapter 3). Current policy specifies that 'Each Board will include at least one, and normally two, External Board Members.'
Preliminary analysis can be undertaken by external members due to shortage of APS.	This has been a standard practice since the external board members were first used. Overall, 32 per cent of preliminary analyses have been written by external board members.
Tiered approach based on ACAT level.	Between August 2009 and July 2011 DMO conducted a two-tiered Gate Review program based on ACAT level. Since July 2011 this tiered approach has lessened.  The requirement for preliminary analysis has changed over time. The current policy directs IPPO to determine the level of preliminary analysis based on resource availability and their assessment of project risk rather than ACAT level.
DGGA to monitor the status of actions arising from each review.	DGGA does not monitor action items. Current policy directs DGGA to 'audit Divisional action closure processes.' IPPO has started developing a process to monitor the status of action items but it has not yet been fully implemented.
Develop process, procedure, training to identify lessons learned and implement corrective action.	IPPO has started populating a lessons learned data base.
Increase independence of chairperson.	Current policy states 'unless otherwise agreed by DCEO, the Chair must not be in the line management of the project under review.' Overall 'independence', by this measure is tending to decrease.
Gate Reviews to be conducted earlier in the project lifecycle.	Current policy specifies two optional decision points at which Gate Reviews may be conducted before First Pass Approval, known as 'Project Initiation' and 'Options Definition'. DMO advise that the first Project Initiation Review Board Gate Review was conducted on 23 May 2012.

Outcome detailed at 9 June 2011	Activity Towards Completion
Inform Minister of IPPO capabilities as a project facilitation office.	Updates are being provided as part of 'Update on the progress of reforms announced by the Minister for Defence and the Minister for Defence materiel on 6 May 2011.'

Source: ANAO, based on data supplied by DMO

# Index

---

## A

Acquisition Category (ACAT), 49, 52, 53, 72, 74, 78, 82  
Action items, 69, 70, 71, 89, 93  
Administrative policy for Gate Reviews, 14, 16, 17, 18, 35, 38, 49, 53, 54, 56–60, 61, 62

## C

Capability Development Group (CDG), 27, 30  
Case Study 1  
    Land 106—M113 Upgrade, 85, 119  
Case Study 2  
    Land 112 Phase 4—ASLAV Enhancement, 86, 125  
Case Study 3  
    Air 9000 Phase 2, 4 and 6—MRH-90, 86, 130  
Centralised management of Gate Reviews, 14, 15, 18, 19, 61, 70, 72, 81, 87  
CEO DMO, 48, 52, 53, 55, 69  
Chief Audit Executive, 50, 91  
Cost of Gate Reviews, 101, 103

## D

*Defence Annual Report*, 48, 52, 77, 113, 115, 116  
Defence Materiel Instruction (DMI), 53, 56  
Deputy CEO, 35, 60, 96, 117  
DMI (A&S) 14-0-003, Version 1.0, 16 December 2009, 57  
DMI (A&S) 14-0-003, Version 2.0, 27 April 2012, 59  
DMI (EXEC) 00-0-009, Version 1.0, 3 May 2012, 60  
DMO divisions, 71, 72  
Domain Assurance Boards, 46, *See also* Materiel Assurance Boards  
Draft DMI (A&S) 14-0-003, Version 2.0, July 2011, 58  
Draft DMI (A&S) 14-0-003, Version 2.0, November 2011, 58

## E

Early Indicator and Warning system, 55  
Early Indicators and Warnings, 30  
Early Indicators and Warnings system, 35  
Essential characteristics, 62, 63, 66, 67, 73, 80, 81, 84  
Evaluation of the Gate Review process, 93, 96  
External members, 44, 53, 67, 70, 74, 77, 80, 82, 83, 96  
External scrutiny, 29, 48, 55, 62, 77

## G

Gate Review Assurance Board, 29, 50, 53, 66, 67, 75  
Gate Review decision points, 30, 109  
Gate Review metrics register, 98  
Gate Review records, 71, 73  
Gate Reviews attended by ANAO, 67  
*Gateway Review Process*, 41  
General Manager Commercial, 35  
General Manager Programs, 35  
General Manager Systems, 35, 49, 69, 74

## I

Independence of Gate Reviews, 29, 44, 55, 65, 70, 78, 82  
Independent Project Performance Office (IPPO), 35, 54, 55, 61, 70, 71  
Interviews with Gate Review personnel, 70

## J

Joint Committee of Public Accounts and Audit, 31  
Joint Standing Committee on Foreign Affairs, Defence and Trade, 31, 47

## L

Lessons learned, 70, 97



## **M**

Major capital acquisition projects, 27, 55  
Major Program Control Branch, 35, 53, 55, 71,  
74, 80, 81  
Minister for Defence, 32, 50, 54, 55  
Minister for Defence Materiel, 31, 54, 81  
Monitoring and review, 88  
Mortimer Review, 46, 51, 54, 55

## **O**

Outcomes, 69, 72

## **P**

Preliminary analysis, 53, 65, 66, 68, 75, 76, 80,  
82, 83  
Projects of Concern, 36, 55, 119, 120, 122, 124,  
131

## **S**

Success factors, 63, 64, 65  
Super Seasprite project, 46, 47, 62  
Sustainability of Gate Reviews, 102

## Series Titles

---

### **ANAO Audit Report No.1 2011–12**

*The Australian Defence Force's Mechanisms for Learning from Operational Activities*  
Department of Defence

### **ANAO Audit Report No.2 2011–12**

*Confidentiality in Government Contracts: Senate Order for Departmental and Agency Contracts (Calendar Year 2010 Compliance)*

### **ANAO Audit Report No.3 2011–12**

*Therapeutic Goods Regulation: Complementary Medicines*  
Department of Health and Ageing

### **ANAO Audit Report No.4 2011–12**

*Indigenous Employment in Government Service Delivery*

### **ANAO Audit Report No.5 2011–12**

*Development and Implementation of Key Performance Indicators to Support the Outcomes and Programs Framework*

### **ANAO Audit Report No.6 2011–12**

*Fair Work Education and Information Program*  
Department of Education, Employment and Workplace Relations

### **ANAO Audit Report No.7 2011–12**

*Establishment, Implementation and Administration of the Infrastructure Employment Projects Stream of the Jobs Fund*  
Department of Infrastructure and Transport

### **ANAO Audit Report No.8 2011–12**

*The National Blood Authority's Management of the National Blood Supply*  
National Blood Authority

### **ANAO Audit Report No.9 2011–12**

*Indigenous Secondary Student Accommodation Initiatives*  
Department of Families, Housing, Community Services and Indigenous Affairs  
Department of Education, Employment and Workplace Relations

ANAO Audit Report No.52 2011–12  
Gate Reviews for Defence  
Capital Acquisition Projects

**ANAO Audit Report No.10 2011–12**

*Administration of the National Partnership on Early Childhood Education*

Department of Education, Employment and Workplace Relations

**ANAO Audit Report No.11 2011–12**

*Implementation and Management of the Housing Affordability Fund*

Department of Families, Housing, Community Services and Indigenous Affairs

Department of Sustainability, Environment, Water, Population and Communities

**ANAO Audit Report No.12 2011–12**

*Implementation of the National Partnership Agreement on Remote Indigenous Housing in the Northern Territory*

Department of Families, Housing, Community Services and Indigenous Affairs

**ANAO Audit Report No.13 2011–12**

*Tasmanian Freight Equalisation Scheme*

Department of Infrastructure and Transport

Department of Human Services

**ANAO Audit Report No.14 2011–12**

*Indigenous Protected Areas*

Department of Sustainability, Environment, Water, Population and

Communities

**ANAO Audit Report No.15 2011–12**

*Risk Management in the Processing of Sea and Air Cargo Imports*

Australian Customs and Border Protection Service

**ANAO Audit Report No.16 2011–12**

*The Management of Compliance in the Small to Medium Enterprises Market*

Australian Taxation Office

**ANAO Audit Report No.17 2011–12**

*Audits of the Financial Statements of Australian Government Entities for the Period*

*Ended 30 June 2011*

**ANAO Audit Report No.18 2011–12**

*Information and Communications Technology Security: Management of Portable Storage Devices*

**ANAO Audit Report No.19 2011–12**

*Oversight and Management of Defence's Information and Communication Technology*  
Department of Defence

**ANAO Audit Report No.20 2011–12**

*2010–11 Major Projects Report*  
Defence Materiel Organisation

**ANAO Audit Report No.21 2011–12**

*Administration of Grant Reporting Obligations*  
Department of Finance and Deregulation

**ANAO Audit Report No.22 2011–12**

*Administration of the Gateway Review Process*  
Department of Finance and Deregulation

**ANAO Audit Report No.23 2011–12**

*Administration of the National Greenhouse and Energy Reporting Scheme*  
Department of Climate Change and Energy Efficiency

**ANAO Audit Report No.24 2011–12**

*Administration of Government Advertising Arrangements:  
March 2010 to August 2011*

**ANAO Audit Report No.25 2011–12**

*Administration of Project Wickenby*  
Australian Taxation Office  
Australian Crime Commission  
Australian Federal Police

**ANAO Audit Report No.26 2011–12**

*Capacity Development for Indigenous Service Delivery*  
Department of Families, Housing, Community Services and Indigenous Affairs  
Department of Education, Employment, and Workplace Relations  
Department of Health and Ageing

ANAO Audit Report No.52 2011–12  
Gate Reviews for Defence  
Capital Acquisition Projects

**ANAO Audit Report No.27 2011–12**

*Establishment, Implementation and Administration of the Bike Paths Component of the Local Jobs Stream of the Jobs Fund*

Department of Regional Australia, Local Government, Arts and Sport  
Department of Infrastructure and Transport

**ANAO Audit Report No.28 2011–12**

*Quality On Line Control for Centrelink Payments*

Department of Human Services

**ANAO Audit Report No.29 2011–12**

*Administration of the Australia Network Tender Process*

Department of Foreign Affairs and Trade

Department of Broadband, Communications and the Digital Economy

Department of the Prime Minister and Cabinet

**ANAO Audit Report No.30 2011–12**

*Fighting Terrorism at its Source*

Australian Federal Police

**ANAO Audit Report No.31 2011–12**

*Establishment and Use of Procurement Panels*

Australian Securities and Investments Commission

Department of Broadband, Communications and the Digital Economy

Department of Foreign Affairs and Trade

**ANAO Audit Report No.32 2011–12**

*Management of Complaints and Other Feedback by the Department of Veterans' Affairs*

Department of Veterans' Affairs

**ANAO Audit Report No.33 2011–12**

*Management of ePassports*

Department of Foreign Affairs and Trade

**ANAO Audit Report No.34 2011–12**

*Upgrade of the M113 Fleet of Armoured Vehicles*

Department of Defence

Defence Materiel Organisation

**ANAO Audit Report No.35 2011–12**

*Indigenous Early Childhood Development. New Directions: Mothers and Babies Services*

Department of Health and Ageing

**ANAO Audit Report No.36 2011–12**

*Development and Approval of Grant Program Guidelines*

Department of Finance and Deregulation

**ANAO Audit Report No.37 2011–12**

*The Child Support Program's Management of Feedback*

Department of Human Services

**ANAO Audit Report No.38 2011–12**

*Administration of the Private Irrigation Infrastructure Operators Program in New South Wales*

Department of Sustainability, Environment, Water, Population and Communities

**ANAO Audit Report No.39 2011–12**

*Management of the National Solar Schools Program*

Department of Climate Change and Energy Efficiency

**ANAO Audit Report No.40 2011–12**

*Interpretative Assistance for Self Managed Superannuation Funds*

Australian Taxation Office

**ANAO Audit Report No.41 2011–12**

*National Partnership Agreement on Literacy and Numeracy*

Department of Education, Employment and Workplace Relations

**ANAO Audit Report No.42 2011–12**

*Management of the Multicultural Servicing Strategy for the delivery of Centerlink Services*

Department of Human Services

**ANAO Audit Report No.43 2011–12**

*National Partnership Agreement on Remote Service Delivery*

Department of Families, Housing, Community Service and Indigenous Affairs

ANAO Audit Report No.52 2011–12  
Gate Reviews for Defence  
Capital Acquisition Projects

**ANAO Audit Report No.44 2011–12**

*Administration of the Primary Care Infrastructure Grants Program*  
Department of Health and Ageing

**ANAO Audit Report No.45 2011–12**

*Administration of the Health and Hospitals Fund*  
Department of Health and Ageing

**ANAO Audit Report No.46 2011–12**

*Administration of Northern Australia Quarantine Strategy*  
Department of Agriculture, Fisheries and Forestry

**ANAO Audit Report No.47 2011–12**

*Small Business Superannuation Clearing House*  
Department of the Treasury  
Department of Human Services  
Australian Taxation Office

**ANAO Audit Report No.48 2011–12**

*Administration of Mental Health Initiatives to Support Younger Veterans*  
Department of Veterans' Affairs

**ANAO Audit Report No.49 2011–12**

*Security Assessments of Individuals*  
Australian Security Intelligence Organisation

**ANAO Audit Report No.50 2011–12**

*Processing and Risk Assessing Incoming International Air Passengers*  
Australian Customs and Border Protection Service

**ANAO Audit Report No.51 2011–12**

*Interim Phase of the Audits of the Financial Statements of Major General Government Sector Agencies for the year ending 30 June 2012*

# Current Better Practice Guides

---

The following Better Practice Guides are available on the ANAO website.

Public Sector Environmental Management	Apr 2012
Developing and Managing Contracts – Getting the right outcome, achieving value for money	Feb 2012
Public Sector Audit Committees	Aug 2011
Human Resource Information Systems Risks and Controls	Mar 2011
Fraud Control in Australian Government Entities	Mar 2011
Strategic and Operational Management of Assets by Public Sector Entities – Delivering agreed outcomes through an efficient and optimal asset base	Sep 2010
Implementing Better Practice Grants Administration	Jun 2010
Planning and Approving Projects – an Executive Perspective	Jun 2010
Innovation in the Public Sector – Enabling Better Performance, Driving New Directions	Dec 2009
SAP ECC 6.0 – Security and Control	Jun 2009
Preparation of Financial Statements by Public Sector Entities	Jun 2009
Business Continuity Management – Building resilience in public sector entities	Jun 2009
Developing and Managing Internal Budgets	Jun 2008
Agency Management of Parliamentary Workflow	May 2008
Public Sector Internal Audit – An Investment in Assurance and Business Improvement	Sep 2007
Fairness and Transparency in Purchasing Decisions – Probity in Australian Government Procurement	Aug 2007
Administering Regulation	Mar 2007
Developing and Managing Contracts – Getting the Right Outcome, Paying the Right Price	Feb 2007
Implementation of Programme and Policy Initiatives – Making implementation matter	Oct 2006