

The Auditor-General  
Audit Report No.3 2006–07  
Performance Audit

# **Management of Army Minor Capital Equipment Procurement Projects**

**Department of Defence**

**Defence Materiel Organisation**

Australian National Audit Office

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of Australia 2006

ISSN 1036-7632

ISBN 0 642 80921 6

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Canberra ACT  
7 September 2006

Dear Mr President  
Dear Mr Speaker

The Australian National Audit Office has undertaken a performance audit in the Department of Defence and Defence Materiel Organisation in accordance 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 titled *Management of Army Minor Capital Equipment Procurement Projects*.

Following its tabling in Parliament, 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

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# Abbreviations

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|        |  |
|--------|--|
| ACAP   | Army Capability Acquisition Program              |
| AHQ    | Army Headquarters                                |
| AOS    | Artillery Orientation System                     |
| AUC    | Assets Under Construction                        |
| BEPB   | Bridge Erection and Propulsion Boat              |
| CA     | Chief of Army                                    |
| CAARS  | Corporate Agency Agreement Reporting System      |
| CDG    | Capability Development Group                     |
| CFO    | Chief Finance Office                             |
| DCP    | Defence Capability Plan                          |
| DI(A)  | Defence Instruction (Army)                       |
| DMO    | Defence Materiel Organisation                    |
| DPCU   | Disruptive Pattern Combat Uniform                |
| EAS    | Equipment Acquisition Strategy                   |
| FMS    | Foreign Military Sales                           |
| FYMCEP | Five Year Minor Capital Equipment Program        |
| GBAD   | Ground Based Air Defence                         |
| GFE    | Government Furnished Equipment                   |
| HLS    | Head Land Systems                                |
| HRPV   | Heavy Remote Positioning Vehicle                 |
| IPSSR  | Improved Project Scheduling and Status Reporting |

|          |  |
|----------|--|
| IPT      | Integrated Project Team                      |
| ISD      | In-Service Date                              |
| LSD      | Land Systems Division                        |
| MAA      | Materiel Acquisition Agreement               |
| MARAP    | Medium Artillery Replacement Ammunition      |
| MINCS(L) | Minor Capital Submission (Land)              |
| MRS      | Management Reporting System                  |
| NOC      | Net Operating Cost                           |
| NVG HUD  | Night Vision Goggles Head-Up Display         |
| PSTAR    | Portable Search and Target Acquisition Radar |
| QEMS     | Quality and Environment Management System    |
| RFT      | Request For Tender                           |
| SPO      | System Project Office                        |
| TDMC     | Technical Data Management Capability         |
| WTSS     | Weapons Training Simulation System           |





## **Summary and Recommendations**



# Summary

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## Background

1. The Army contributes to the achievement of the Government's defence objectives through the provision of capabilities for land and special operations. A major part of this capability is delivered through the Army Minors Program. In recognition of the importance of this program to Army as a source of real capability, in March 2006 it was retitled within the Defence Materiel Organisation (DMO) as the Army Capability Acquisition Program. The Program is one of the primary means of enhancing, replacing current, or introducing new combat capability within Army, and is designed to facilitate the relatively quick procurement of defined capability. Minor projects involve the upgrade or acquisition of equipment at a cost of between \$0.5 million and \$20 million, and are generally of less strategic significance and single Service or single Group in nature. Defence advised that Minor projects are still extremely important in terms of deploying capability.
2. Army Minor projects are diverse, including developmental projects, equipment replacement or upgrade projects, and minor low value procurement. In 2005–06, Army received 39 per cent of total Defence funding for the procurement of Minor Capital Equipment. The annual allocation provides the Chief of Army (CA) with discretionary funding. Unlike the Major Capital Equipment Program, Army Minor projects have not been managed through a global update process. The total allocation to the Army Minors Program is adjusted annually for inflation, while price variations due to the passage of time are managed on a project by project basis within that total Program allocation.
3. The submissions supporting a Minor project approval generally include the projected spend for the project across a five year timeframe. Procurement is generally scheduled to occur in the first two to three years, and expenditure in the subsequent years is to cover the first three years of in-service support. The expenditure forecasts do not factor in projected movement in price over time. In practice, many of the larger Army Minor projects have undergone a longer procurement process.
4. A more robust process for progressing Army Minor project proposals through to approval came into effect in November 2003. The process requires Army Minor capability proposals to be considered in a two stage process prior

to project approval.<sup>1</sup> This process represents a more rigorous approach to that previously in place and, together with the requirement for Materiel Acquisition Agreements (MAAs)<sup>2</sup> between Defence and the DMO from 2005–06, will facilitate improved delivery of capability.

5. Following prescription of the DMO on 1 July 2005, the annual allocation for the Army Minors Program for 2005–06 of \$64 million was prepaid to DMO. Land Systems Division (LSD) within DMO provides financial management services for the Program and, at the time of the audit, managed 82 per cent of the projects by value. The remaining projects in the Program are managed by other Divisions in DMO or by Army Headquarters (AHQ). The Army Minors Program included 85 projects as at 1 July 2005 at a total cost of \$505 million.

6. The objective of the audit was to examine the effectiveness of Defence's management of the procurement of Minor capital equipment for Army capability. In particular, the audit focussed on the identification and approval of capability requirements; the management of Army Minors Program funding and expenditure; and DMO management of procurement processes for Army Minor projects. The audit focused on projects included in the Program as at 1 July 2005. As at that date, 85 projects were listed. Case studies illustrating particular issues in the management of the Program are profiled throughout the report in the relevant section.

## Overall audit conclusions

7. The Army Minors Program is an important means of delivering enhanced, replacement, or new capability to Army. Capability delivered through the Program has included combat training simulation systems, combat clothing and protective equipment, tractors, trailers and other plant and equipment. As might be expected for a Program involving a large number of diverse projects with differing values and complexity of procurement processes, there was variability in the management of the projects.

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<sup>1</sup> This contrasts with the process for progressing Major projects, where actual project approval is delivered in two stages and termed first and second pass approval.

<sup>2</sup> To support the capability development and equipment acquisition services for projects, MAAs were put in place in June 2005. The MAAs provide a high level agreement to commitments by Army as customer and DMO as supplier of procurement services.

8. The Program has experienced delays in progressing projects, and in the delivery of capability to schedule, in a large proportion of the top 20 projects by value. Those 20 projects received approval over the period 1992 to 2005. ANAO review indicates that three-quarters of those projects had either delivered capability later than the forecast date contained in the original project submissions, or revised the expected in-service delivery date where delivery had not yet occurred (see Table 1). In some cases delays have ran into many years, impacting on the quality or functionality of equipment available to Army. The cost for eight of the 10 projects for which capability had been delivered had increased due to time or changes in scope. Four of the current ongoing projects have experienced cost increases.

9. While some of the projects are late in terms of delivering the items sought, this does not always translate to a loss of capability. Defence considers that there are contingency plans to enable the rapid acquisition of items in the event of high priority need, and alternate commercial arrangements can generally be entered into for the interim provision of equipment.

10. Slippage in project schedules has impacted the ability to spend the annual allocation for the Program and at times has resulted in projects being progressed before capability requirements have been adequately specified. The principal factors identified by ANAO as contributing to project slippage, and consequent in-year underspending against projected expenditure, included:

- unrealistic or over optimistic and unchallenged baseline schedules and budgets;
- programming of projects based on underdeveloped or poorly specified capability requirements;
- inadequate project management methodology, particularly scheduling and risk management, and poor project management discipline;
- inadequate staff allocation to projects;
- poor performance by, and inadequate supervision of, contractors; and
- project reviews focused only on budgets.

11. Since 2004, DMO and Army have put in place a number of initiatives to develop and align the management practices in the Army Minors Program with those of the Major Capital Equipment Procurement Program. The initiatives also address the broad reforms stemming from the Defence Procurement Review including prescription of the DMO and raising the profile

and improving the management oversight of the Program. These are positive developments in the Program, and the successful implementation of these initiatives, together with the update of procedural guidance to reflect acceptable practice, will improve the overall management of the Army Minors Program and increase the likelihood of projects being delivered to the expected quality, cost and schedule.

## Key findings

### Funding and expenditure

12. Annual funding available for the Army Minors Program is based on an historic allocation with an annual adjustment for price indexation. The allocation is not based on planned individual project expenditure for the year. Funding allocated to Army is advanced to DMO as a prepayment, supported by a program of approved projects. Forecast project expenditure for 2005–06 exceeded available funds by \$23.2 million. Over-programming of planned expenditure is a risk management technique applied by Defence in anticipation that, for a range of reasons, not all projects will achieve planned expenditure in the year. This acknowledges the complexity of some of these acquisitions, the fact that some risks are outside DMO control, and a history of project slippage. Prudently managed, over-programming in such circumstances is an appropriate response by Defence.

13. ANAO review of planned expenditure for the Program identified a pattern of downward revision throughout the financial years. For example, two months after the prepayment to DMO for 2005–06, planned expenditure had dropped by 29 per cent to a figure \$2 million less than the prepayment. Against the background of significant changes in planned expenditure, over-programming has only been partially effective in managing slippage in the Program. This is principally due to the lead times to progress projects from finalisation of the specifications to procurement, and to the competing demands for DMO staff resources required for the procurement process.

14. In the financial years 2000–01 to 2004–05, expenditure was concentrated in the last quarter of the financial year, with an average of approximately 25 per cent of expenditure occurring in June. Defence advised that this expenditure spike is largely attributable to an annual procurement cycle that, by design, culminates with the delivery of a significant proportion of orders in the last quarter of the financial year. DMO advised that anticipated results for

2005–06 reflect a downward trend in the volume of expenditure occurring in June. This is a positive development resulting from changed work practices.

## Program Management

15. In the cases where delays were experienced in progressing project submissions, the estimated project costs for older projects were not generally revisited prior to seeking project approval. ANAO identified recent instances of updates to cost estimates to take account of the passage of time for projects experiencing approval delays. This improved approach will better align approved costs with expected project costs.

16. The Defence Instruction for the Army Minors Program was issued in November 2003 and is no longer consistent with current practices. There is a need for that Instruction to be updated to reflect outcomes of the Defence Procurement Review of 2003, changed practices following prescription of the DMO in 2005, and improved governance arrangements implemented for the Program. The effective update of that instruction will require input from Army Headquarters, DMO and the Capability Development Group (CDG).

17. ANAO identified a high incidence of slippage in the actual and anticipated delivery of capability from original in-service dates for the top 20 Army Minor projects (by value) as at 1 July 2005 as detailed in Table 1.<sup>3</sup> These projects received approval between 1992 and 2005, and collectively have an approved cost of \$292.8 million. A number of the projects remained in the Program despite the capability having been delivered. Slippage can impact on the quality or functionality of equipment available to the Army, particularly where the delayed project is seeking to deliver enhancements to or replacement of existing equipment.

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<sup>3</sup> ANAO analysis used original in-service dates sourced from capability submissions as those documents supported the requirement for the capability and higher delegate submissions or approvals did not consistently include proposed in-service dates. Defence considered the use of the original date to be misleading indicating that, until recently, Minor capital projects were managed by endorsement of the original project submission and then fitting this into the program when funding and staff capacity were available. ANAO has included project approval dates for the top 20 projects by value in Table 3.3.

**Table 1 Top 20 Army Minor Projects (by value) as at 1 July 2005**

|  | Original In-service Date | Actual In-service Date  | Slippage in In-service Date (years) |
|--|--------------------------|-------------------------|-------------------------------------|
| <b>Delivered Capability</b>  |                          |                         |                                     |
| 1. Mounted Tactical Engagement Simulation System - Precision Gunnery Trainer | 1994-95                  | 2003-04                 | 9                                   |
| 2. Hand Held Range Finders   | 1994-95                  | 2002-03                 | 8                                   |
| 3. Tactical Engagement Simulation System                                     | 1995-96                  | 2002-03                 | 7                                   |
| 4. Combat Boots  | 1996-97                  | 2000-01                 | 4                                   |
| 5. Tactical Training Simulation Capability                                   | 1999-00                  | 2004-05                 | 5                                   |
| 6. Light Engineer Tractor  | 2000-01                  | 2001-02                 | 1                                   |
| 7. Tactical Assault Equipment For Special Forces                             | 2000-01                  | 2002-03                 | 2                                   |
| 8. Standard Defence Supply System Roll-out to Army Units                     | 2001-02                  | 2003-04                 | 2                                   |
| 9. Bridge Erection and Propulsion Boat                                       | 2003-04                  | 2004-05                 | 1                                   |
| 10. Wet Weather Ensemble   | 2003-04                  | 2003-04                 | 0                                   |
| <b>Current Ongoing Projects</b>  |                          |                         |                                     |
| 11. Field Materiel Handling Capability Medium                                | 1997-98                  | 2005-06                 | 8                                   |
| 12. Medium Bulldozer   | 2002-03                  | 2006-07                 | 4                                   |
| 13. Medium Grader  | 2002-03                  | 2006-07                 | 4                                   |
| 14. Artillery Orientation System   | 2003-04                  | 2006-07                 | 3                                   |
| 15. Army Technical Data Management Capability                                | 2004-05                  | 2006-07                 | 2                                   |
| 16. Medium Artillery Replacement Ammunition                                  | 2005-06                  | 2007-08                 | 2                                   |
| 17. Echidna HRPV Replacement   | 2006-07                  | 2006-07                 | 0                                   |
| 18. Field Refrigeration Storage and Distribution                             | 2006-07                  | Under review by Defence | To be determined                    |
| 19. Weapons Training Simulation System Capability Enhancement                | 2007-08                  | 2007-08                 | 0                                   |
| <b>Terminated Project</b>  |                          |                         |                                     |
| 20. Leopard Life of Type Extension   | 2000-01                  | N/A                     | N/A                                 |

Notes: See Table 3.3 for relevant notes.

Source: ANAO analysis of Defence and DMO project documentation.

18. Five of the top 20 projects by value listed in Table 1 have been approved since the introduction in 2003 of the two pass endorsement process. The anticipated in-service date for three of these projects has slipped from the original proposed date, one of the projects is progressing to schedule, and DMO has advised that the other project is likely to deliver capability a year ahead of schedule. The cost for eight of the 10 delivered projects had increased



due to the passage of time or changes in scope while four of the current ongoing projects have experienced cost increases; each for the passage of time.

19. An issue in compiling detail on the top 20 projects was access to approval documentation providing the mandate for projects. A repository of submissions has not been maintained. ANAO noted that this generally related to older projects and that AHQ now manages documentation supporting project approval in the corporate electronic document management system.

## **Procurement management**

20. Staffing levels in LSD have been recognised as contributing to the difficulty in managing Army Minor projects to schedule. Issues that have impacted DMO's responsiveness to adequately staff projects include: the high concentration of projects in specific System Project Offices (SPOs); competing priorities to staff Major projects; the elapsed time in completing project approval; turnover and availability of project managers; and the actual duration of Minor projects.

21. Staff resource constraints are in the process of being addressed in LSD through the identification of additional positions required to effectively manage the projects, and recruitment to fill those positions. ANAO review of selected projects has highlighted the need to better identify and match project resource requirements with DMO staff availability in the approval stage.

22. Army Minor projects have generally been staffed with a single project manager within a SPO. Given the breadth of skills that can be required to manage a procurement process, the staff levels and skills set required to effectively undertake a project should be assessed. ANAO considers that the breadth of responsibilities assumed for Minor procurement projects generally warrants the allocation of experienced project managers to Army Minor projects. DMO acknowledged the value from allocating experienced project managers, subject to availability, but also the need to create opportunities to 'grow' project managers.

23. The Bridge Erection and Propulsion Boat project was identified by ANAO as a recent example of an effectively managed Army Minor project. The capability was delivered to cost and revised schedule, and was accepted as consistent with the endorsed requirement. A high level of user involvement was evident and the project closure process was well managed.

24. ANAO identified a number of common issues in the review of several combat clothing projects funded from the Army Minors Program. The clothing

acquisition projects had been managed as straight procurement rather than as projects. In each project reviewed, the contractual commitments exceeded the approved project costs and sustainment funding was utilised to cover the difference. At the project closure stage, quantities procured were not reconciled against approved capability requirements for the projects. Defence advised in June 2006 that, for items that have ongoing sustainment requirements, contracts are often raised that exceed project approval and that this is due to several funding sources being utilised to acquire the item and to allow ongoing support of the new or revised capability.

25. ANAO review of the combat clothing projects initiated in 2002–03 identified that the timing for their inclusion in the Program was driven by the perceived need to address anticipated under-expenditure against the allocation for the Army Minors Program. While approval documentation for the projects anticipated that expenditure would be realised within the year, only 35 per cent of approved funds for the projects reviewed were expended in 2002–03.

26. Closure for many projects in the Army Minors Program, as at 1 July 2005, was outstanding due to incomplete administrative action. Projects identified for closure represented nearly half of the projects included in the Program. The ANAO notes that an initiative in 2003 to table project closure reports at Review Committee meetings did not become standard practice, and that procedural guidance for Army Minor projects does not adequately detail the process or requirements for removing a project from the Program on satisfactory delivery of the capability.

27. In the case of the older projects in the Program, the ability to prepare project closure documentation is impacted by the delay following the delivery phase of the projects. This delay can result in a loss of corporate memory of the project and poor access to documentation supporting project management. The project closure documentation supporting the Land Sniping System Project is considered by ANAO to represent effective administrative practice.

### **Improved administrative practice**

28. DMO and Army have put in place a number of initiatives to improve the management and governance of the Army Minors Program. The initiatives seek to raise the profile of Army Minor projects, to better align business processes with those of Major Capital Equipment projects, and to shift management focus from financial year spending to Program and project performance. Recent initiatives include the following:

- to better manage projects to schedule, the Improved Project Scheduling and Status Reporting (IPSSR) methodology has been progressively implemented for Army Minor projects during 2005. Timely use of this tool will aid in the programming of projects to realistic and well-founded schedules;
- to improve the management and timing of expenditure on low value procurement, programmed expenditure on miscellaneous serials from 2005–06 will be based on requirements identified by the June preceding the financial year in which expenditure is proposed. This will facilitate expenditure on a requirements basis as opposed to an allocation basis;
- to improve DMO capacity to deliver capability through the Army Minors Program, staff resource numbers have been increased. Finalisation of the recruitment exercise in 2006, to more than double previous staffing levels for Minor projects within LSD, will assist in improving performance against planned schedules for projects going forward; and
- to raise the profile of the Army Minors Program in DMO, in March 2005 Head Land Systems (HLS) assumed the position of Chair at Review Committee meetings held three times a year.<sup>4</sup> The format of these meetings also changed in March 2006 to strengthen management oversight of individual projects within the approved Program. All projects are now subject to a review by the LSD Executive prior to each Review Committee meeting.

29. ANAO considers that successful implementation of these initiatives will improve the management of current and proposed Minor projects, and thereby the effective delivery of capability through the Army Minors Program.

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<sup>4</sup> The Army Minors Program has also been renamed the Army Capability Acquisition Program in a further effort to raise the profile of the Program.

## Defence and DMO response

30. Defence and DMO agreed with the relevant recommendations (see Appendix 1) and provided the ANAO with the following response to this audit:

The Army Minor Capital Program is an important contributor to the delivery of new and replacement equipment that will enhance the performance of land forces, both in training and on operations. Many of these Minor Capital acquisitions are developmental and complex in nature, and demand appropriate project management skills. Army is reliant on the DMO and various supporting Defence Groups for successful delivery of the Program, and on the capacity and skill of industry to deliver on time, to budget, and to the requisite outcome.

Army and the DMO have taken significant steps in the last few years to improve governance, business processes, capability delivery, and financial performance of Army Minors. Some of these changes have already resulted in improvement to the management and timely progression of projects.

# Recommendations

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*Set out below are the ANAO's recommendations, with report paragraph reference. The recommendations are discussed in the relevant parts of this report.*

**Recommendation No.1**  
**Paragraph 3.8**

ANAO recommends that Defence update the Defence Instruction (Army) for the Army Minors Program to reflect acceptable current practice, including requirements arising from the 2003 Defence Procurement Review and prescription of the DMO.

*Defence response:* Agreed. Defence will re-draft the Instruction for the Army Minor Capital Program by December 2006.

**Recommendation No.2**  
**Paragraph 4.55**

ANAO recommends that, to facilitate effective project closure, DMO ensure documentation supporting that process include a history of the Army Minor project, accountability against approved cost and schedule, a reconciliation of deliverables against the endorsed capability requirement, and stakeholder sign-off.

*DMO response:* Agreed. Land System Division will develop enhanced procedures for closing Army Minor Capital Equipment Projects, and provide additional training and assistance to relevant managers.



## **Audit Findings and Conclusions**





# 1. Introduction

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*This chapter provides an overview of the procurement of Minor Capital Equipment for Army capability.*

## Background

**1.1** Army's investment in capability is provided through both the Major Capital Equipment Program and the Minor Capital Equipment Program. Defence defines Minor Capital Equipment procurement projects as those which are usually of less strategic significance, are single Service or single Group in nature, and involve the upgrade of existing equipment or the acquisition of new equipment at a cost of between \$0.5 million and \$20 million for each individual item or group of items.<sup>5</sup> The Army Minors Program also includes funding for procurement valued at less than \$500 000, which are not defined individually as projects.

**1.2** The Army Minors Program is an important contributor to Army capability. As Army is not platform-based like the other Services, it relies to a greater extent on the Army Minors Program to deliver enabling equipment purchases. The Program is designed to facilitate the relatively quick procurement of defined capability. The Program is one of the primary means of enhancing, replacing current, or introducing new capability within Army.<sup>6</sup>

**1.3** Army Minor capital procurement projects are diverse in nature and include the procurement or upgrade of vehicles, ammunition, software, and the initial allocation of new clothing. Some specific past and current projects include procurement of: light trailers, medium bulldozers, medium graders and operational watercraft; land sniping equipment, long range mortar systems and handheld rangefinders; tactical engagement simulation systems; field refrigeration capability; and, ballistic plates, combat uniforms and boots.

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<sup>5</sup> Major capital equipment procurement projects are those that exceed \$20 million. A project may also be considered Major if an individual item costs in excess of \$1 million. Following approval, Major projects are transferred from the Defence Capability Plan to the DMO for the acquisition phase. The Defence Capability Plan (DCP) is a costed development plan for Australia's military capabilities over a ten-year period.

<sup>6</sup> The Program is also used to fund capability utilised by Navy and Air Force where Army is the lead capability manager. For example, for procurement of clothing, field kitchens and combat supplies.

#### 1.4 Army Minors fall into three main categories:

- Developmental projects – where the equipment is not available off the shelf, or where modifications to existing equipment are required, and project expenditure spans a number of financial years;
- Fleet equipment replacement/upgrade projects – where the equipment is readily available in the market and expenditure is expected to occur over one to two financial years; and
- Miscellaneous serial items – where low value equipment requirements are procured within the financial year and managed collectively.

### Minors funding allocation

1.5 Funding for the Defence Minor Capital Equipment Program is provided through an annual allocation. In contrast to the funding arrangements for Major capital projects, where the funding flows from the Defence Capability Plan (DCP), a proportion of that Minor capital funding is allocated to Army for capability requirements. In effect, the Army Minors Program provides the CA with a source of discretionary funds.

1.6 Table 1.1 illustrates the distribution of the budget for Defence Minor Capital Equipment purchases included in the Portfolio Budget Statements 2005–06, with 39 per cent allocated to Army.

**Table 1.1 Allocation of Minor Capital Procurement Budget for 2005–06**

| Defence Group   | Budget<br>\$m  | Proportion<br>% |
|---|----------------|-----------------|
| Army  | 65.864         | 39              |
| Air Force   | 31.324         | 18              |
| Navy  | 26.954         | 16              |
| Other <sup>1</sup>  | 24.562         | 14              |
| Central Provision   | 22.231         | 13              |
| Total   | <b>170.935</b> | 100             |
| Note: (1) This category comprises the Vice Chief of the Defence Force, Chief of Information Office, Capability Development Group and Defence Information Environment. |                |                 |

Source: Defence Chief Finance Officer Group

1.7 Global budget increases for inflation are not automatically flowed through or applied at a project level. Instead adjustments are considered on a project by project basis and any increase to a project's cost, due to elapsed time

in the procurement, is managed within the Army Minors Program funding allocation. Defence advised ANAO in April 2006 that Defence's budgeting process allows Service Chiefs and Group Heads to adjust Minor Capital funding to meet changing circumstances and priorities.

**1.8** Overall management of the Army Minors Program is the responsibility of AHQ. The procurement process, including introduction of the capability into service, for approved projects in the Program is managed by the DMO. Capability Development Group (CDG) endorses submissions for capability introduced through the Army Minors Program. The Department of Finance and Administration is involved in the project approval process for projects with a proposed cost exceeding \$8 million.

**1.9** LSD, within the DMO, manages three-quarters of the Army Minor projects (82 per cent by value) and provides financial management services for the Program.<sup>7</sup> Prior to 1 July 2005, Defence funds allocated to the Army Minors Program was provided directly to LSD. Following prescription of the DMO, a prepayment was made to DMO comprising the full allocation of funds for the Army Minors Program for 2005–06 for a program of approved projects. Currently, LSD holds the annual budget for the Program.

**1.10** The Army Minors Program has a history of underspending the annual funds available to the Program. Documentation of the consideration of proposals and the project approval process suggest that this has not resulted from a failure to identify Army Minors Program capability required by Army. Rather, underspends within a year have been largely due to staff resourcing issues within the DMO.<sup>8</sup> Defence advised in June 2006 that other factors affecting budget achievement, that vary in weighting from year to year, include: project complexity and maturity; industry capacity/capability; resources and priorities (operational tempo); project scope; and, scheduling and loading.

## Army Minors Program

**1.11** The Program of approved Army Minor projects included 85 projects as at 1 July 2005, 40 of which had been identified for closure in April 2004. The total approved cost for the projects included in the Army Minors Program was

<sup>7</sup> Expenditure in 2004–05 against projects managed by LSD represented 91 per cent of total expenditure for the Army Minors Program for the year. The remainder of the projects in the Program are managed by other Divisions in DMO or by AHQ.

<sup>8</sup> The Chair of the Management Committee noted at the 6 September 2005 meeting that the ability to deliver against the Army Minors Program is restricted by DMO capacity.

\$505 million, \$336 million of which had been expended to 30 June 2005.<sup>9</sup> Ten of the ongoing projects are for low value procurement, known as miscellaneous serials.<sup>10</sup> Table 1.2 provides a profile of the projects.

**Table 1.2 Approved Army Minor Projects as at 1 July 2005**

| Approved Projects   | <\$20 and >\$8 million | >\$5 million and <\$8 million | <\$5 million    | Total |
|---|------------------------|-------------------------------|-----------------|-------|
| Ongoing (excluding low value procurement)   | 11                     | 4                             | 20              | 35    |
| Low value procurement   | 0                      | 0                             | 10 <sup>1</sup> | 10    |
| Identified for closure  | 10                     | 10                            | 20              | 40    |
| Total   | 21                     | 14                            | 40              | 85    |
| Note (1): In 2004-05, these projects represented 18 per cent of total expenditure from the Army Minors Program. Two of the projects have no programmed expenditure for 2005-06. |                        |                               |                 |       |

Source: ANAO review of DMO financial documentation

**1.12** The Five Year Minor Capital Equipment Program (FYMCEP) is the rolling program for the funding, and therefore priorities, of Army's current and proposed Minor Capital Equipment procurement projects. The FYMCEP authorises expenditure in budget year and provides guidance for allocating project resources in the outer years of the five year plan. It includes both approved projects and 'unapproved' projects, which are those that have received initial endorsement of the capability proposal.

**1.13** Since February 2004, AHQ, LSD and CDG have each had a dedicated staff member to manage their respective responsibilities for the Army Minors Program. However, from December 2005 CDG will manage responsibilities to the Program through a reduced staff resource allocation. Defence advised that the position in CDG is an agreed vacancy in 2006-07 and that the workload between AHQ and CDG has been actively managed.

## Project approval and management

**1.14** The FYMCEP is managed under a committee process. Following endorsement by the Minor Capital Management Committee (Management Committee), chaired by Army, capability proposals are included in the

<sup>9</sup> As at 1 July 2005, a further 28 projects had been proposed and included in the unapproved program with an estimated total project cost of \$111 million.

<sup>10</sup> The total approved cost for the projects included in the Army Minors Program of \$505 million includes only the proposed expenditure for these miscellaneous serials for 2005-06.

FYMCEP as unapproved Minor projects. This process is termed first pass endorsement.<sup>11</sup> AHQ manages the program of unapproved Minor projects. The capability proposal is developed into a submission that provides the business case for the Minor project. Following second pass endorsement of the submission by the Management Committee, and project approval by the delegate, the project is entered in the FYMCEP as an approved project. LSD manages the program of approved projects.

**1.15** The approved program is managed principally through the Minor Capital Review Committee (Review Committee) chaired by DMO. The profile of the Army Minors Program has been raised within DMO since Head Land Systems assumed the position of Chair of that Committee in March 2005.

**1.16** To support the capability development and equipment acquisition services for projects within the Army Minors Program, Materiel Acquisition Agreements (MAAs) were introduced in June 2005. MAAs are designed to formalise the customer/supplier relationship between the DMO and Defence for the procurement of capability for designated capital equipment projects. MAAs for the Program are signed by the CA as customer and the Chief Executive Officer DMO as supplier.<sup>12</sup> For future projects, MAAs will provide for formal handover from Army to DMO for the procurement process.

## Audit approach

**1.17** To date, ANAO review of Defence capital equipment procurement projects has concentrated on Major capital acquisitions. ANAO determined that the scale of the total commitments for Minor capital projects warranted review of the Minors Program. As the largest proportion of annual funding for Minors has historically been allocated to Army, this audit was scoped to review the Army Minors Program. The audit forms part of an on-going series of audits reviewing procurement of capital equipment by Defence and DMO.

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<sup>11</sup> The approval process differs from that for Major projects as the two pass process is an internal endorsement process managed by the Management Committee. Project approval is sought from the appropriate delegate after second pass committee endorsement. Unlike the Major Capital Equipment program, funding is not provided for the development of Minor project proposals.

<sup>12</sup> In contrast, MAAs for projects in the Approved Major Capital Equipment Program were signed between the Chief Capability Development Group as customer and the Chief Executive Officer DMO as supplier.

**1.18** The objective of the audit is to examine the effectiveness of Defence's management of the procurement of Minor Capital Equipment for Army capability. In particular, the audit focussed on:

- reviewing Army's processes for the identification and approval of capability to be acquired under the Minor Capital Equipment Program;
- assessing the management of the funding for, and expenditure on, the procurement of Army Minor Capital Equipment; and
- reviewing DMO management of Minor Capital Equipment procurement processes for Army capability projects.

**1.19** The audit reviewed the management of a number of Army Minor projects to varying degrees, depending on the stage of the project. A number of projects reviewed by ANAO as case studies are profiled throughout the report and included in the relevant report section to illustrate the issues significant to the Program. The audit also examined the timeframe for delivery of capability for the top 20 Army Minor projects by value in the Army Minors Program as at 1 July 2005. Approval for these projects spanned the period 1992 to 2005.

**1.20** Audit fieldwork was conducted in Defence and DMO between July 2005 and November 2005. Additional fieldwork on combat clothing projects was conducted in March 2006. Findings and recommendations of reviews and investigations by the Inspector-General's Group of Defence, relating to Minor Capital Projects in the LSD, were considered by ANAO during fieldwork. Issues Papers were provided to Defence and DMO in March 2006 and a Discussion Paper was provided in May 2006. The draft audit report was provided to Defence and the DMO in July 2006.

**1.21** The audit was conducted in accordance with the ANAO Auditing Standards at a cost to the ANAO of \$340 000.

## 2. Financial Management

*This chapter identifies the funding arrangements for the Army Minors Program and examines the financial performance of the Program.*

### Funding arrangements

**2.1** The allocation of funds to the Army Minors Program, as a proportion of total Minor Capital funding included in the Portfolio Budget Statement for each of the financial years 2003–04 to 2005–06, has been 44, 47 and 39 per cent respectively. Table 2.1 provides the allocation of funding to the Army Minors Program from 2003–04 to 2005–06.

**Table 2.1 Allocation of funds to the Defence Minor Capital Equipment Program**

|  | 2003-04        |             | 2004-05        |             | 2005-06        |             |
|--|----------------|-------------|----------------|-------------|----------------|-------------|
|  | Defence<br>\$m | Army<br>\$m | Defence<br>\$m | Army<br>\$m | Defence<br>\$m | Army<br>\$m |
| Portfolio Budget Statements                      | 169.9          | 75.0        | 163.8          | 76.5        | 170.9          | 65.9        |
| 1 July   | 166.6          | 73.0        | 152.0          | 76.5        | 172.4          | 65.9        |
| Portfolio Additional Estimates Statements (PAES) | 168.9          | 68.2        | 199.2          | 81.6        | 174.0          | 66.6        |
| Final allocation                                 | 165.6          | 46.7        | 186.5          | 66.9        | n/a            | n/a         |
| Actual expenditure                               | 165.3          | 45.5        | 185.9          | 62.9        | n/a            | n/a         |

Source: Defence CFO

**2.2** In respect of the annual allocation for the total Defence Minor Capital Equipment Program and the Army Minors Program from 2000-2001 to 2005-06, the Chief Finance Office (CFO) advised that: ‘until late in calendar year 2002, detailed records were not maintained in the CFO Group of Group allocations



at this level. Rather, the focus was on total Group allocations not individual line items.<sup>13</sup>

**2.3** While Army is responsible for deciding the capability requirements and priorities for the Army Minors Program, financial management of the Program prior to 1 July 2005 resided with DMO. Army oversight of the financial management of that funding was effected through attendance at meetings of the Review Committee. At that forum, both the financial position of the annual program of expenditure and expenditure on a project basis is discussed. From 1 July 2005, financial management of the Program reverted to Army.<sup>14</sup> Funding allocated to Army is advanced to DMO each financial year as a prepayment for a program of approved projects.

**2.4** Annual funding available for the Army Minors Program is based on an historic allocation with an annual adjustment for price indexation, rather than planned individual project expenditure for the year. At the time the 2005–06 prepayment was made to DMO, anticipated expenditure for the year of \$87.6 million for approved projects exceeded the amount of the prepayment of \$64.4 million.<sup>15</sup> Over-programming of planned expenditure is a risk management technique applied by Defence in recognition that, for a range of reasons, not all projects will achieve planned expenditure in any one year. This acknowledges the complexity of some of these acquisitions, the fact that some risks are outside DMO control, and a history of project slippage. Prudently managed, over-programming in such circumstances is an appropriate response by Defence.

**2.5** In July 2002, the Management Committee identified that the Minor Capital Program for 2002–03 was under-programmed by \$23 million. To help

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<sup>13</sup> Defence further advised that: 'The allocation of funds to the Army Minors Program was a matter for the Chief of Army and then Under Secretary Materiel to decide, including determining project priorities, within the DMO managed allocation. Commencing in late 2002, detailed records of Groups budget allocations, including the lower level details (such as Minor Capital budgets) have been maintained by CFO Group. Changes to these allocations, whether approved by Government at the Portfolio level, or discretionary decisions by Group Heads are routinely recorded and tracked. Also, new business rules were introduced at that time which categorised Group funds into discretionary and non discretionary items. Minor Capital is treated as a discretionary item. As historically been the case, Army Minors continues to be treated as a discretionary item within the Army budget.'

<sup>14</sup> A proposal for funding of the Army Minors Program to be returned to direct Army control was raised in October 2003. It was considered that this would provide improved alignment of resources, accountability and responsibility in the management of the Program. While a number of papers were developed on proposed funding arrangements, the revised arrangement was not implemented until prescription of the DMO on 1 July 2005.

<sup>15</sup> The difference between the allocation of funds to the Army Minors Program for 2005–06 of \$65.9 million and the prepayment made to DMO relates to funding for one project which is to be managed by AHQ and not DMO.



achieve the Program, 25 fleet equipment replacements and enhancement projects totalling \$34 million were approved. Three projects for the procurement of combat clothing totalling \$9.5 million were included. Approval documentation for the projects dated September 2002 noted that it was anticipated that expenditure would be realised within the year. However, only 35 per cent of approved funds for combat clothing projects was spent in 2002–03. Defence advised in June 2006, that the need for this new combat clothing capability had already been established prior to the approval process and that the projects had only been brought forward in the Program in the expectation that they could be completed and delivered within the financial year. Defence further advised that failure to achieve this expenditure can be attributed to the complexities of the procurement process and limitations of the manufacturing industry.

**2.6** Movement in annual planned Program expenditure, and underspending against funds allocated to the Program, illustrate that over-programming has not been a fully effective solution for managing slippage in the Program. ANAO review of planned expenditure for the Army Minors Program identified a pattern of downward revision for the financial years 2003–04 to 2005–06.<sup>16</sup> Between the last meeting of the Management Committee in 2004–05 (April 2005) and the first meeting in 2005–06 (September 2005), planned expenditure on the Army Minors Program for 2005–06 fell by 24 per cent, from an over-programmed position of \$17.5 million to a forecast underspending against allocation of \$2.2 million. Forecast expenditure fell below the amount prepaid to DMO. The minutes of the September 2005 Management Committee meeting noted that experience suggested that further slippage would occur.

**2.7** Defence advised ANAO in April 2006 that ‘in a program containing a large number of small projects, slippage is inevitable. While over-programming may not have been as effective as we would have liked in dealing with the problem, it is nevertheless an accepted management technique and one which is used in the Major and Minor programs’.

**2.8** Defence further advised in April 2006 that, in addition to difficulties in staffing projects, slippage in the Program has stemmed from factors inherent in the running of a project. These include problems such as contractor inability to meet agreed schedules, quality issues and the inability to secure raw materials.

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<sup>16</sup> Planned Program expenditure was revised from \$73.3 million to \$60.6 million for 2004–05 and from \$61.6 million to \$52.1 million for 2003–04.

Defence considers that over-programming remains a valid management solution in relation to the factors that contribute to contractor caused slippage.

## **Combat clothing**

**2.9** ANAO review of the combat clothing projects initiated in 2002–03 identified that, while the requirement for the new clothing had been previously established, timing of the inclusion of the projects in the Program was driven by the perceived need to take advantage of the availability of funds arising from anticipated under-expenditure against the allocation for the Army Minors Program. In the case of two of the projects (Fleece Jackets and Skivvies), the ability to spend approved funds was affected by delays in finalisation of the specifications and consequent production of the clothing. The timeframe for a third project (Wet Weather Ensemble) was impacted by an acquisition strategy that first required sourcing the fabric and then the exercise of an option in an existing production contract, with the consequence that funds could not be spent within the financial year.<sup>17</sup>

**2.10** A profile of the Army Minor project for the procurement of the skivvy, the inner-most combat clothing layer, is provided in Figure 2.1.

**2.11** Figure 2.1 illustrates that the fabric specification for the Skivvy changed after issue of the original tender documents for the procurement and resulted in the need to sole source the fabric. ANAO also notes that, despite the repeated inability of the contractor to meet the contracted delivery schedule for the initial supply of fabric for the Skivvy Project, that same contractor was awarded further business when additional quantities of fabric were required by Defence to meet an approved increase in skivvies to be procured.

**2.12** ANAO notes that the short lead time and tight timeframe established for the combat clothing projects exacerbated problems with contractor's ability to deliver to established schedules.

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<sup>17</sup> A contract for the initial supply of the Wet Weather Ensemble was put in place to meet operational requirements in East Timor. Procurement, via the Army Minors Program, utilised an option for production of further quantities in the original contract and followed the tender process for supply of the fabric.

## Figure 2.1 Skivvy Procurement

### *Purpose*

For combat clothing, Army has developed a three layered approach to provide a progressive increase in protection to suit a range of climatic conditions and activity levels. The outer layer shell is called the Wet Weather Ensemble and comprises a wet weather jacket and trousers. The middle layer is a wool fleece jacket. The skivvy (or undershirt) provides the inner thermal layer of Army's multi-layered approach to combat clothing.

### *Project approval*

Procurement of the skivvy was programmed to address shortfalls in the Army Minors Program in 2002–03. The proposal for the procurement of 48 100 skivvies at a cost of \$1.4 million was approved by the CA in September 2002, noting that expenditure would be realised within the financial year. Only 11 per cent of the approved funds were actually spent in 2002–03. In June 2003, CA approved a project variation increasing the number of skivvies to be procured to 100 000 at a total project cost of \$2.5 million.

### *Procurement*

The Equipment Acquisition Strategy planned for procurement to be conducted in two stages, utilising an open tender process for both the procurement of raw material and manufacture of the garments. Following release of the Request for Tender (RFT), Defence was advised by a potential tenderer and a wool manufacturing company that the fabric specification was not fit for purpose in certain cold weather conditions. The tender was subsequently cancelled, and Defence sole sourced the fabric developed and marketed by that company from the sole licensee of that fabric. A second RFT for the manufacture of the skivvy, using government supplied fabric, and restricted to the companies that responded to the original RFT, resulted in the award of a contract in June 2003 for the manufacture of the skivvies.

Contract amendments to increase the number of skivvies to be procured and to change the specifications each resulted in increases to the contracted price per skivvy. At the time the contract amendment was signed for the price increase due to revised specifications, the new design had not been accepted by AHQ and skivvies continued to be manufactured to the old specifications. Following CA approval to an increased quantity of skivvies, another RFT was issued. A contract with a second garment manufacturer was entered into in November 2003 for the production of 43 002 skivvies, and in May 2004 a contract amendment provided for an additional 15 000 skivvies.

As a result of the increased quantity of garments to be procured, a further contract for the supply of additional material was let to the original fabric supplier. This was despite repeated delays by that supplier against contracted delivery schedules in the original contract.

The project closure report of February 2006 documented the procurement of 123 696 skivvies at a cost of \$2.4 million. Contractual commitments for the project amounted to \$2.7 million. Financial records reflect that Fleet (sustainment) funds were used to fund the shortfall.

## Financial performance

**2.13** The initial funding allocations for the Army Minors Program over the past five years, and the final year end position after adjustments are outlined in Table 2.2.<sup>18</sup>

**Table 2.2 Movement in funds allocated to the Army Minors Program (excluding East Timor funding)**

| Year   | 2000-01<br>\$m | 2001-02<br>\$m | 2002-03<br>\$m | 2003-04<br>\$m | 2004-05<br>\$m |
|--|----------------|----------------|----------------|----------------|----------------|
| <b>CFO provided figures<sup>19</sup></b>         |                |                |                |                |                |
| Initial Budget allocation (from PAES)            | 109.5          | 111.7          | 79.4           | 68.2           | 81.6           |
| Final allocation after adjustments <sup>20</sup> | 67.1           | 101.1          | 66.6           | 46.7           | 66.9           |
| <b>DMO provided figures</b>                      |                |                |                |                |                |
| Initial Budget allocation                        | 70.5           | 66.3           | 63.1           | 64.5           | 67.2           |
| Final allocation after adjustments               | 64.5           | 64.7           | 50.1           | 48.5           | 63.0           |
| Expenditure on Army Minors                       | 50.2           | 81.0           | 58.8           | 49.3           | 60.5           |

Source: DMO and Defence CFO

**2.14** The transfer of project funds from the Army Minors Program to other Groups affects the transparency of total moneys spent on individual Army Minor projects. Transfers also affect the transparency of the extent to which DMO has achieved projected expenditure on projects for a financial year.

**2.15** Defence advised ANAO in April 2006 that:

transfers are the result of deliberate management action and do not necessarily relate to the likelihood of an underspend. For example in 2003–04 \$8 million was transferred out of minors early in the financial year for other high priority activities; this was within CA's authority and the Defence Committee was also advised.

<sup>18</sup> Adjustments may result from the transfer of funds from the Program to other Groups responsible for delivery components of the project, such as to Fleet management, responsible for in-service support, or to reallocate funds at the discretion of the CA.

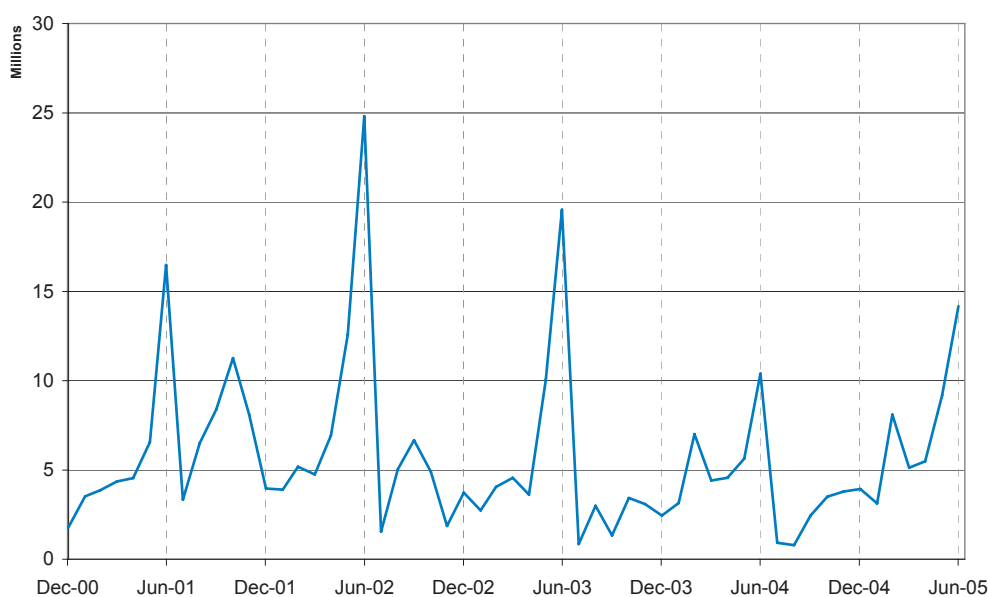
<sup>19</sup> Figures for 2000–01 to 2002–03 were provided to the ANAO by Defence in August 2006.

<sup>20</sup> Defence advised ANAO in August 2006 that significant increases in allocations in 2000–01, 2001–02 and 2002–03 were the result of an injection of additional operations funding for projects in support of the deployment to East Timor.

## Expenditure pattern

**2.16** In the financial years 2000–01 to 2004–05, expenditure for the Army Minors Program was concentrated in the last quarter of the financial year, peaking each year in June. The expenditure pattern is illustrated in Figure 2.2.

**Figure 2.2 Monthly expenditure pattern for Army Minors Program from December 2000 to June 2005**



Source: ANAO analysis of DMO expenditure data

**2.17** Expenditure from the Army Minors Program is largely comprised of spending on Minor capital projects and low value procurement, known as ‘miscellaneous serials’.<sup>21</sup> Miscellaneous serials include the procurement of items identified as requirements from Army unit establishment reviews, equipment entitlement variations outside that review process, block scales and minor low value items.<sup>22</sup> Miscellaneous serials generally account for between 15 to 20 per cent of the annual expenditure from the Army Minors Program. In

<sup>21</sup> DMO's Project management methodology is not applied in the management of these serials due to the low value of the individually procured items, and the definition of a project being a procurement cost of greater than \$500 000.

<sup>22</sup> Block scales detail personnel entitlements and a grouping of equipments which are common to more than one type of Army unit. For example, combat and field clothing and equipment, and physical training equipment. Minor low value items are defined as urgent short time frame capability enhancements that do not individually exceed \$0.5 million.

2004–05, these serials represented 18 per cent of total expenditure. Typically, expenditure on miscellaneous serials can be realised within a financial year.

**2.18** The pattern of spending on miscellaneous serials has a significant impact on the management of annual expenditure for the Army Minors Program, given that it accounts for a significant component of total Program expenditure. Miscellaneous serials represented 30 per cent of total expenditure for the Army Minors Program in June 2005.<sup>23</sup>

**2.19** DMO has indicated that this expenditure pattern has occurred by design, with longer lead-time procurement being advanced early in the year and procurement of readily available capability following. Defence advised ANAO in April 2006 that:

An LSD analysis has concluded that the last quarter expenditure spike is largely attributable to an annual procurement cycle that culminates with the delivery of a significant proportion of orders in the last quarter of the financial year. This cycle commences with long lead-time orders (6-9 months for overseas purchases) being placed in the first quarter of the financial year. Subsequently, short lead-time orders (often 3-6 months for domestic purchases) are placed in the second quarter of the financial year. This cycle results in an apparent expenditure spike. However the spike is caused by deliveries that are planned to occur in the last quarter of the year.

**2.20** ANAO notes that the need to better manage Program expenditure and minimise year end spending to meet an allocated funding base has been recognised by LSD. Prior to 2005–06, funds were programmed for each of the miscellaneous serials based on an historical allocation. From 2005–06, LSD and AHQ implemented revised procedures requiring projected expenditure on those serials to be programmed on a ‘requirements’ basis. Army units are now required to lodge documentation supporting the equipment to be funded through the Army Minors Program by 1 June for procurement in the following financial year. Documentation submitted by that date now forms the agreed miscellaneous serials program between Army and DMO.<sup>24</sup> DMO advised ANAO in August 2006 that results for 2005–06 reflect a downward trend in the volume of expenditure occurring in June and that this result is primarily

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<sup>23</sup> On average over the last five years, one third of expenditure on miscellaneous serials has occurred in June.

<sup>24</sup> The new programming arrangements do not preclude additional funding from being allocated against these serials during the year. Instead they seek to ensure estimated expenditure programmed for the serials for the year is realistic and consistent with the purpose of the capital funding.

attributed to the management of the program based on a requirement not an allocation.

**2.21** ANAO determined that total funding for miscellaneous serials programmed in the FYMCEP as at 1 July 2005 was generally supported by documentation of equipment requirements for 2005–06 and outstanding commitments carried forward from 2004–05.<sup>25</sup>

**2.22** Programming based on actual submissions, rather than on predetermined allocations, is consistent with the requirements of the 2003 Defence Procurement Review. Under this new regime, there should be less potential for underspending, and any underspend that may occur should reflect delays in the procurement process and not delays in determining requirements.

**2.23** The funding of sustainment activity through miscellaneous serials in the Army Minors Program has been raised at Management and Review Committees. In the case of the serial for procurement following unit establishment reviews, a decision has been made to cease further procurement of this kind following receipt of equipment against outstanding orders. The application of Minor capital funds to fleet replenishment (sustainment) has historically resulted from anticipated underachievement of budgeted annual expenditure, and consequent expenditure on short lead-time low value procurement towards financial year end.

**2.24** ANAO recognises that Minors funding can be allocated to other priorities, dependent on circumstances and within aggregate allocations or with Defence Committee approval. However, for financial transparency, the Minors Program should reflect procurement of equipment that either introduces new capability or enhances existing capability, and the Sustainment budget should be applied to maintaining existing capability.

## Price Increases

**2.25** Unlike the Major Capital Equipment Program, which automatically provides for price and exchange rate supplementation, Army Minor projects have not been managed through a global update process. The total allocation to the Army Minors Program is adjusted annually for inflation, while price

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<sup>25</sup> ANAO found that eight out of the ten miscellaneous serials had the majority of their supporting procurement documentation submitted on time.



variations due to time are managed retrospectively on a project by project basis.

**2.26** The capability submissions supporting project approval generally include the projected spend for the project across a five year timeframe. Procurement is generally scheduled to occur in the first two to three years, with expenditure in subsequent years budgeted to cover the first three years of in-service support. Expenditure forecasts do not factor in cost increases over time, probably due to the assumption that a short timeframe will be applied to the delivery of the capability. In practice, many of the Army Minor projects span a longer timeframe for the procurement process. Where cost increases have occurred due to the passage of time, approvals for project cost increases are sought on an individual project basis.<sup>26</sup> These approvals are managed within DMO and are not required to be referred to the original project approval delegate.

**2.27** To ensure consistency in approach, and transparency of the movement in project costs due to the elapsed time of the project, ANAO considers that procedures for the update and management of project cost increases due to inflation should be included in the Defence Instruction covering the Army Minors Program. Defence advised ANAO in June 2006 that a Defence Materiel Instruction (Finance), currently being drafted, proposes change to the arrangements to account for inflation and exchange variations for Minor projects. The proposed arrangements are to implement a centrally managed global update process identical to that applied to Major projects.

**2.28** For projects where delays were experienced in the project approval process, ANAO observed that the estimated project costs had not generally been revisited prior to seeking higher delegate project approval. Defence advised that whilst this practice may have occurred in the past, it is now routine procedure to update project cost estimates to take into account the passage of time, where appropriate, before obtaining final delegate approval. ANAO subsequently observed recent instances of updates to project cost estimates to take into account of delays in the approval process and notes that this improved practice will better align approved costs with expected project costs.

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<sup>26</sup> In a Minute to the then Minister for Defence of August 2001, seeking an increase to the project approval for the Land Sniping System Project to cover both real cost increases and costs associated with a change to the scope of this project, it was noted that price and exchange adjustments had not previously been undertaken annually for individual Minor capital projects but that it would be addressed for the future. ANAO observed approvals for indexation updates for the Bridge Erection and Propulsion Boat Project in June 2005 and both the Medium Bulldozer and Medium Grader Projects in December 2005.



## Technical Data Management Capability Project

**2.29** Despite a recognised need for a Technical Data Management capability, the elapsed time for progressing the project approval was five and a half years from the completion of the submission to project approval.<sup>27</sup> This project seeks to provide an automated capability for technical data management for land materiel. The project cost was identified in the Minor Capital submission of November 1999 as \$16.3 million, with expenditure projected over the period 2000–01 to 2004–05. The submission envisaged commencement in 2000–01 with implementation taking two years. The approval process for this project was initiated in DMO and differed from that applied to other Minor projects. It involved a two pass approval process, with initial approval from the Minister for Defence, with advice to the Minister for Finance and Administration, to spend up to \$0.5 million to fund the release of a Request for Tender to clarify project costs, risks, schedule and scope.

**2.30** The expected project cost identified to the then Minister in February 2001 was \$17 million and a further submission for full project approval was foreshadowed in 2002–03. However, second pass approval was obtained from the then Minister for Defence in March 2005 and the Minister for Finance and Administration in June 2005 for a total cost of \$17.1 million (Budget 2005–06 out-turned price and exchange). The MAA for the project, signed in June 2005, identifies an investment price of \$17 million (November 1999 prices).<sup>28</sup> Defence advised that, 'in view of gains in efficiency in software platforms since 1999, it was considered that there was no need to adjust the funding level from the \$17 million identified in 1999'. ANAO considers that the reference in the MAA to the project cost being in 1999 prices should therefore be removed. Defence advised ANAO in August 2006 that a new price basis should be entered (likely 2006) so that the basis for any subsequent price movement is fixed.

**2.31** Army visibility of the progression of this project was impacted by its inclusion in the Program at the first pass approval cost of only \$0.5 million; a value that did not flag the project for regular coverage at the Review

<sup>27</sup> The submission for this capability, endorsed in 1999, identified that the availability and effectiveness of Army's high technology equipment is reliant upon the provision of, and access to, accurate technical information. The conclusion for the submission states that 'unless Army takes action to arrest the current situation with regard to the management of technical data, then it will worsen, potentially leading to serious injury or death due to unsafe land materiel as a direct result of inaccurate and unauthoritative technical data. The difficulty in maintaining and keeping current the technical data necessary to maintain Army equipment, and the potential risk to supporting Army equipment on exercises and operations, was again stated in the Ministerial submission for project approval of November 2004.

<sup>28</sup> Neither the submission to the then Minister for Defence, nor the letter to the Minister for Finance and Administration seeking project approval, refer to the total cost of the project as being in 1999 dollars.

Committee meetings. As the focus for coverage at the Review Committee meetings has been on how projects are tracking to planned expenditure, the slippage in the schedule from that envisaged in the Minor Capital submission and timing advised to the then Minister was not reported. Defence advised in June 2006 that 'the process has now changed, and commencing in March 2006 all projects are regularly reviewed against schedule, expenditure, risk and capability outcome'.

**2.32** The Management Committee was advised during the November 2005 meeting that the project would be unable to meet its scope in terms of cost, schedule and performance and would be re-presented for further guidance. Significant problems have been experienced with the definition of the specifications for this project and, as at May 2006, the acquisition strategy for this project was under review.

## 3. Program Management

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*This chapter examines the approval process for the delivery of Army capability through the Army Minors Program and reviews management and performance of the Program.*

### Project approval process

**3.1** The approval process for Minor Capital Equipment procurement projects varies across the Services, with each Service having its own instruction covering the project approval stage.<sup>29</sup> Following project approval, standardised DMO practices and procedures apply to project management of the procurement phase of Minor projects.

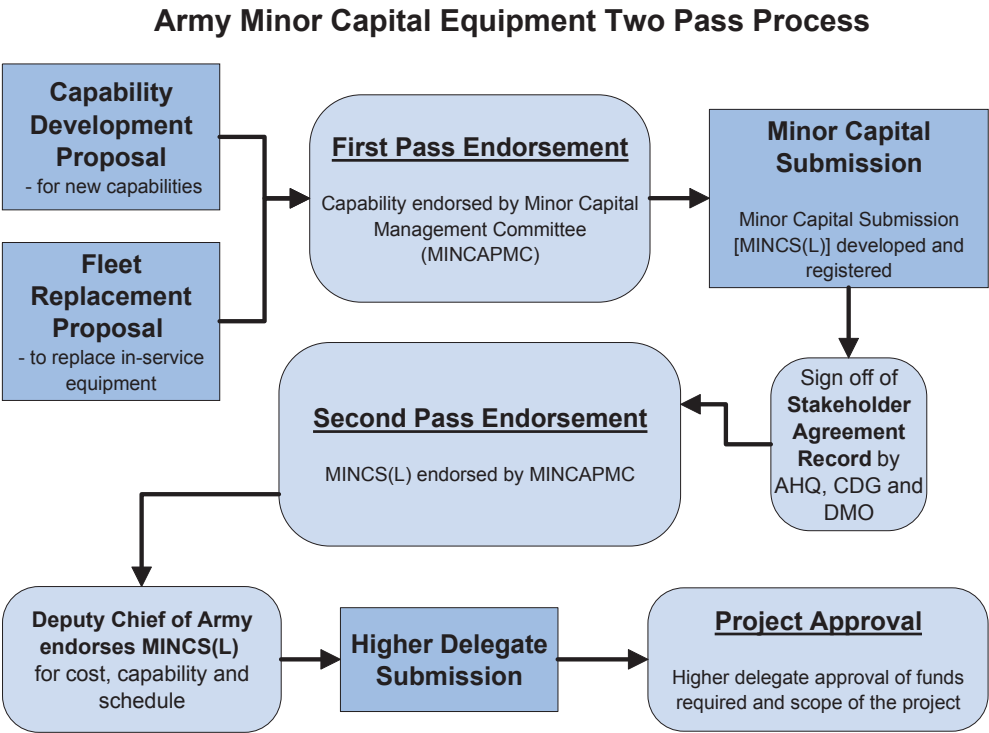
**3.2** The principal document to guide the management of capital procurement projects to be delivered under the Army Minors is Defence Instruction (Army) LOG 25-1 – *Army Minor Capital Program* promulgated on 18 November 2003. The stated aim of the instruction is to detail the process of the Army Minors Program. The instruction states that it describes and guides the management of the Army Minor Capital Process providing: definition of the process from concept to project closure; responsibilities of key stakeholders; guidance for the format of Minor capability submissions; and guidance for obtaining and varying project approval. The Instruction introduced a new two-stage endorsement process.<sup>30</sup> Figure 3.1 depicts the approval process for Army Minor projects.

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<sup>29</sup> In contrast, a standardised ‘front end’ process is in place for Major projects. Defence is currently updating the Departmental policy on project approval to reflect the recent changes in the Defence business model and changes in governance arrangements.

<sup>30</sup> The Army Instruction of November 2003 did not replace an existing procedural document. Prior to the issue of this Instruction there was no definitive instruction or documentation of process for the process, including for example, processes to be followed for the approval of changes to project scope where there is no increase in project cost. The practice included in that Instruction of the Management Committee providing first and second pass endorsement commenced from the meeting of 22 October 2003. Unlike the two-pass approval process for Major projects, first and second pass endorsement for Minor projects are managed through the Committee process prior to reference to the higher delegate for project approval. Of the projects selected for audit review, two that demonstrated an exception to this practice were the Technical Data Management Capability and the Bridge Erection and Propulsion Boat Projects. As DMO manages the procurement phase of the process, DMO procedural documentation covers capital equipment acquisition policy and management practice in detail. This is covered in Chapter 4.

Figure 3.1 Two pass approval process for Army Minor capital projects



Source: Review of Defence Instruction (Army) LOG 25-1 Army Minor Capital Program

3.3 Table 3.1 details the project approval delegations for Minor Capital projects. It is also mandatory for cost and funding aspects of all Minor capital project submissions requiring Ministerial approval to go through CFO for financial clearance. ANAO review of Higher Delegate Submissions identified that there was consistent reference to consultation and agreement by CFO to resource aspects of the projects.

Table 3.1 Project approval delegations for Minor capital procurement projects

| Project cost                 | Approving authority  |
|------------------------------|--|
| \$8 million to \$20 million  | Minister for Defence and Minister for Finance and Administration |
| \$5 million to \$8 million   | Minister for Defence   |
| \$0.5 million to \$5 million | Service Chief, Group Head or delegate                            |

Source: 2004–05 Defence Portfolio Budget Statements

**3.4** In December 2003, the Defence Capability Assessment Branch, within the Government and Defence Division of Budget Group, was established in the Department of Finance and Administration (Finance). The Branch was established to enhance cost assessment capability in relation to Defence capability proposals, following the Government's decision on the review of Defence procurement (the Kinnaird Report), announced on 18 September 2003. In the 2004–05 Budget, the Government provided \$8.1 million over five years (including \$0.5 million in 2003–04) to support these activities.<sup>31</sup>

**3.5** Finance now takes a more active role in the approval process for proposed Army Minor projects expected to have a cost exceeding \$8 million. An efficient timeframe for project approvals necessitates the timely involvement of Finance in the consideration of project proposals. Procedural documentation does not identify Finance as a stakeholder to be consulted during the first and second pass endorsement stages of the project approval process. However, the need to better schedule Finance's involvement in the process was addressed at the April 2005 meeting of the Management Committee. At that meeting it was decided that a Finance representative would be invited to attend meetings at which proposals expected to exceed \$8 million were to be discussed.<sup>32</sup> Involvement of Finance at this early stage would facilitate access to improved levels of project documentation than has been available in the past.<sup>33</sup>

**3.6** In March 2004, the need to update procedural documentation to address outcomes of the Defence Procurement Review of 2003 was identified and a formal amendment to DI(A) LOG 25-1 was foreshadowed at the Management Committee meeting in July 2004.

**3.7** In April 2005, the Management Committee identified a number of business rules to be developed to expand on the guidance available in DI(A) LOG 25-1. The proposed rules covered the submission of documentation for miscellaneous serials, procedures for the implementation and review of MAAs, and the identification of contingency funding. At the September 2005 meeting, the Committee agreed to incorporate the business rules in a re-write of

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<sup>31</sup> Department of Finance and Administration Annual Report 2003–04.

<sup>32</sup> The Committee's desire to improve the business relationship with Finance was acknowledged at the Management Committee meeting of 6 September 2005, at which it was again iterated that a Finance representative would be invited to attend whenever a proposal expected to exceed \$8 million was to be discussed.

<sup>33</sup> Two recent projects that have had greater Finance scrutiny in the approval process include the Technical Data Management Capability project and the Echidna HRPV Replacement project.

DI(A)LOG 25-1. At the time of audit fieldwork, the procedural documentation detailing the process of the Army Minors Program had not been revised since its issue in November 2003.

## Recommendation No.1

3.8 ANAO recommends that Defence update the Defence Instruction (Army) for the Army Minors Program to reflect acceptable current practice, including requirements arising from the 2003 Defence Procurement Review and prescription of the DMO.

### Defence response

3.9 Agreed. Defence will re-draft the Instruction for the Army Minor Capital Program by December 2006.

### Approval documentation

3.10 Documentation supporting the approval of projects provides the mandate for the capability to be delivered using the funds allocated to the Army Minors Program. It should provide the history of approvals for cost and schedule and the definition of specifications for capability to be delivered under the projects. ANAO notes that the level of effort applied to the endorsement and approval phase of the project, where the capability requirement is identified and specified and the proposal approved, is important for the timely and successful progression of the subsequent phases.

3.11 Development of the capability proposal requires the identification of the capability need, initial development of the specifications, and identification of the relative priority of the capability for inclusion in the Army Minors Program. The capability requirement and the initial specifications are required to be included in the submission for the project. However, consideration of the projects relative priority to other unapproved and approved projects had not been adequately documented in projects subject to ANAO review.<sup>34</sup>

3.12 The ANAO identified that submissions supporting Minor projects were deficient in:

- not adequately addressing the relative priority of the capability;

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<sup>34</sup> At the time of proposal endorsement or project approval there is no documentation of the relative priority of the project to other approved projects included in the program, or to other projects awaiting approval. This is an issue in regard to the flexibility of resourcing in the DMO and the timely delivery of capability.

- not routinely addressing project risk and contingency funding; and
- not consistently including a project schedule or milestones to achieve delivery of capability requirements.

**3.13** The quality of submissions, and consequent project management, could be improved through the inclusion of the following information:

- the relative priority of the capability requirement to other Army Minor projects, both approved and unapproved, and that the capability is consistent with a requirement driven by the Army Capability and Development Plan;
- an assessment of the complexity of the project, based on a developed risk profile and associated allocation for contingencies. This profile could then be used to better estimate elapsed time expected between project milestones, staff required to manage the project, and the level of involvement required of stakeholders. Risk could be assigned on the basis of issues such as: the level of development or modification of equipment envisaged in the project; the urgency of the capability requirement; and the experience of the project manager assigned to the project;<sup>35</sup>
- identification of milestones, linked directly to those included in the MAA and against which status reporting would be prepared (these should also be consistent with dates included in the formal scheduling tool used by the project manager);
- resourcing requirements, including an assessment of the skill set required to manage the project;
- the impact to Army of the capability not being procured to schedule; and
- a draft MAA.

**3.14** ANAO review of project approval documentation for the top 20 Army Minor projects by value as at 1 July 2005 revealed a lack of consistency in the identification of project risk and complexity and the associated allocation of contingency funding within proposed project costs.

**3.15** DMO management review of slippage in projected expenditure has identified deficiencies in the baseline schedules and budgets as contributing

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<sup>35</sup> Defence responded that the relative priority to other Minors is often a meaningless piece of information and that this information often cannot assist the cross-levelling of staff across SPOs.



factors. Projects endorsed through the Management Committee process since the implementation of the two pass system are potentially more robust in this regard as endorsement of projects is contingent on completion of the Stakeholder Agreement Record. Although DMO sign-off to the submission should provide assurance that DMO has reviewed and accepted baseline schedules and budgets, ANAO notes that the Field Refrigeration Storage and Distribution project, which received endorsement under the two pass system, was not staffed by DMO for almost two years following project approval.<sup>36</sup>

**3.16** ANAO notes that there is often a lengthy delay between finalisation of the project submission and actual project approval (see Table 3.2). It has not been common practice within Defence to revisit project schedules prior to obtaining project approval in these instances. This can result in unrealistic schedules being imposed on DMO at the time of project approval where the project approval process has been advanced within Army.

**3.17** Army is responsible for funding the net operating cost (NOC) associated with the introduction of Minor capital capability. As such, the through life support costs of equipment introduced through the Minor Capital Equipment Program should be fully assessed as part of the project submission.<sup>37</sup> A whole-of-life cost approach to acquiring and operating capability would be consistent with the guidance for the management of Major projects.

**3.18** The project investment cost for Minor capital acquisitions is required to include, as a minimum, the costs associated with the first three years of in-service support. In the case of the upgrade or replacement of capability, Defence advised that:

whilst it is usually normal practice for the project cost to cover the initial first three years of through life support to allow the logistics support chain time to 'ramp-up' this rule may vary dependent on the nature of the project. Noting that net operating costs can either be higher or lower, in most cases it would be expected that where Minors replaces existing equipment that operating costs

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<sup>36</sup> This project received second pass endorsement in the Management Committee meeting of 22 October 2003. The submission for the project included a signed stakeholder agreement record. Defence advised the project was not staffed for 20 months due to restrictions to staffing levels in DMO, higher priority projects and operations, and difficulty in recruiting suitable staff.

<sup>37</sup> The Helicopter Underwater Emergency Training Project, with an approved cost of \$4.758 million, has experienced a project budget funding shortfall attributable to inadequate initial funding estimates for maintenance, facilities and project office costs, and contingency. Under-budgeting for the maintenance component of project costs was estimated by the managing SPO at \$0.276 million. As a submission to increase the project cost to \$6.732 million was not approved by the higher delegate, Army is to fund the training requirement of the project to enable the project to be delivered within the approved budget.



would generally be lower as the capability is newer, more technologically advanced, more easily supportable by the [Original Equipment Manufacturer]. In all cases DMO must agree to the level of funding or absorption of net operating costs by 'sign-off' of the relevant MINCS(L).

**3.19** In the case of the Medium Bulldozers and Medium Graders projects, Defence advised that through life support costs are estimated to be between 30 and 60 per cent of those costs for the current in-service vehicles. The Army Minors Program will fund the first three years of spare parts and maintenance of the new equipment will be met from the current maintenance budget.

## **Materiel Acquisition Agreements**

**3.20** Individual MAAs were drafted by DMO and implemented for approved ongoing Army Minor projects as at 1 July 2005 with outstanding expenditure exceeding \$5 million. Approved ongoing projects with less than \$5 million unspent at that date were included collectively in a single MAA. Projects over-due for closure were not covered by MAAs. Individual MAAs will be prepared for future approved Minor projects with a project cost exceeding \$5 million.

**3.21** MAAs provide a high level agreement to commitments by Army as customer and DMO as supplier of procurement services.<sup>38</sup> There is an expectation that the implementation of MAAs will assist in the management and transparency of any movement in project schedule.<sup>39</sup> ANAO notes that the former requirement for a similar document, the Project Delivery Agreement, and the current requirement for a Stakeholder Agreement Record have not been effective tools to ensure DMO commitment of resources to projects or delivery in accordance with approved schedules.

**3.22** MAAs should be consistent with the approved project submission, representing the business case for the project, to ensure acquisition services are carried out in accordance with project approvals. It was not clear at what point

<sup>38</sup> A potential reduced role of CDG in the Army Minors Program is evident from the Group not being a signatory to the MAAs. ANAO considers that CDG has an important support and advisory role in sponsoring capability to be acquired through the Army Minors Program given the subject matter expertise of the Group and the exposure of that Group to the Major Capital Acquisition Program. ANAO notes, however, that CDG is a signatory to the Stakeholder Agreement Record on the project submission.

<sup>39</sup> ANAO notes that through the MAAs, DMO has committed to a delivery schedule, allocated budget and agreed to listed measures of effectiveness for project deliverables. ANAO notes the MAAs for two projects refer to definitions of schedule and budget included in the Project Plan and capability requirements included in the project submission. For Army to be adequately informed of the commitments being entered into through MAAs, Project Plans would need to be put in place during the project approval process. This is not the current practice within LSD.

in the approval process an MAA is required to be drafted and approved for new projects being considered for inclusion in the Army Minors Program. Business rules were not developed prior to the implementation of the initial MAAs. A formal amendment process for MAAs should be implemented to improve Army's monitoring of the schedule for delivery of capability, and identification of the consequent impact of any potential late introduction of capability.

**3.23** Defence advised ANAO in June 2006 that:

MAA Standard Operating Procedures were available and operative in draft form shortly after prescription, and were formally issued to Division Heads in January 2006. The current version is 1.3, formally issued in May 2006. As well, a draft Defence Materiel Instruction (Finance) "Program Management – DMO Minors Outputs for Defence Minor Capital Investment Programs" is under final review by the drafting working party comprising DMO Minors program coordinators and their "customer" representatives. The draft establishes additional processes and procedures to ensure appropriate program management and standardisation within DMO, and will be recommended to the DMO Executive for endorsement at its July meeting. These documents adequately provide for the establishment of MAAs and management of their amendment; they have been developed by DMO as part of normal business management, independent of any ANAO audit activity or findings.

**3.24** ANAO reviewed approved Army Minor projects as at 1 July 2005 against MAAs put in place prior to prescription of the DMO. ANAO identified two further projects requiring individual MAAs as follows: the Echidna Heavy Remote Positioning Vehicle (HRPV) Replacement project that received joint Ministerial approval at a cost of \$18.6 million in April 2005;<sup>40</sup> and the Field Refrigeration Storage and Distribution project that received joint Ministerial approval at a cost of \$18.5 million in February 2004. ANAO also identified an additional project that required inclusion in the omnibus MAA.<sup>41</sup> Defence advised ANAO in June 2006 that a revised MAA for the Echidna HRPV Replacement project with updated status is being expedited for approval.

**3.25** The omnibus MAA of 15 June 2005 included nine miscellaneous serials. A price was not inserted for these serials. Instead the price is to be confirmed on receipt of the supporting documentation for budgeted expenditure each

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<sup>40</sup> This project utilises a follow-on option in the contract for Major project JP141 for the procurement of an additional 21 systems. Defence advised in June 2006 that the option was exercised in August 2005 and that the first batch of eight systems was delivered in December 2005.

<sup>41</sup> The Enhancement of ADF Special Recon Capability Information Capture & Transfer System Project. Outstanding expenditure for the project as at 1 July 2005 was recorded as \$3.76 million.

year by 1 June annually. The timing of lodgement of the supporting documentation and the fluid nature of the requirements were noted as risks.

**3.26** The omnibus MAA requires the DMO to report to the CA in accordance with the Defence Instruction (Army), and for both DMO and Defence to manage its responsibilities in accordance with the Project Plan. ANAO notes that the Defence Instruction referenced in the MAA does not address reporting requirements for these serials nor are Project Plans developed for these serials.

**3.27** The MAAs are required to reflect the approved project budget and schedule. At the Review Committee meeting of 16 March 2005, AHQ requested that MAAs include original In-Service Dates (ISDs) and project schedules to provide historical context when deciding priorities.<sup>42</sup>

**3.28** Table 3.2 provides an analysis of the documentation of original ISDs for projects with individual MAAs, as at 1 July 2005. It illustrates that seven of the 10 MAAs do not provide transparency of the movement in the scheduled delivery of the capability from estimates supporting project approval. Also, in the case of nine of the ten projects supported by an individual MAA, the current ISD has slipped from the original estimate.

**3.29** Defence advised ANAO in April 2006 that:

While it is important that we track the original in-service date from the original project submission approval it must be remembered that minors especially during the 1990s and until recently were managed by approving from the original project submission and placing it in the program then often adjusting the value of the project submission in order to balance the outlying program from year to year. It would appear only fair to start the clock based on Project Approval (i.e. when the higher delegate approval was provided). In some cases, such as the Field Material Handling Capability Medium, project approval was granted in October 2001 with an initial ISD of 1997–98, clearly this could never have been met. A fairer question is why the lag between the original project submission approval and project approval (higher delegate approval). This is less of an issue now with the two pass process.

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<sup>42</sup> Minutes of the Management Committee meeting of 26 April 2005 noted that MAAs were to show original ISDs, in addition to any agreed revised date. Minutes of the 6 September 2005 meeting also noted that all parties understood that original ISDs were to be recorded in MAAs and that changes to MAAs were to be agreed by the Management Committee.

**Table 3.2 Minor projects with individual Materiel Acquisition Agreements between DMO and Army as at 1 July 2005**

| Project description   | Original project submission approved | Project Approval <sup>1</sup> | Initial ISD <sup>2</sup> | Current ISD in MAA <sup>3</sup> | Reference to original ISD in MAA |
|---|--------------------------------------|-------------------------------|--------------------------|---------------------------------|----------------------------------|
| Field Materiel Handling Capability Medium   | Dec 1994                             | Oct 2001                      | 1997-98                  | 2005-06                         | No                               |
| Artillery Orientation System (AOS)  | Nov 1997                             | Oct 2001 <sup>4</sup>         | 1998-99                  | 2006-07                         | No                               |
| Medium Bulldozer  | Feb 2002                             | Dec 2002                      | 2002-03                  | 2006-07                         | No                               |
| Medium Grader   | Feb 2002                             | Dec 2002                      | 2002-03                  | 2006-07                         | No                               |
| Indirect Fire Computer Software   | Dec 2002                             | Dec 2003                      | 2003-04                  | 2005-06                         | No                               |
| Army Technical Data Management Capability (TDMC)  | Nov 1999                             | Jun 2005                      | 2004-05                  | 2006                            | No                               |
| Modification of RBS 70 Detachment and Associated Ground Based Air Defence (GBAD) Vehicles   | Aug 2004                             | Sep 2004                      | 2005-06                  | 2007-08                         | No                               |
| 81mm Long Range Mortar System   | Oct 2003                             | Nov 2003                      | 2006-07                  | 2007-08                         | Yes                              |
| Medium Artillery Replacement Ammunition (MARAP)   | Mar 2004                             | May 2004                      | 2006-07                  | 2007-08                         | Yes                              |
| Weapons Training Simulation System (WTSS) Capability Enhancement  | Sep 2003                             | Mar 2004                      | 2007-08                  | 2007-08                         | Yes                              |
| <p>Notes:</p> <p>(1) The date on which higher delegate approval was provided.</p> <p>(2) The initial ISD is sourced from the project submission supporting approval. Where not specifically stated, it is based on the latest year in which a significant value was recorded in the proposed expenditure spread. Subsequent annual expenditure for these projects relate to in-service costs.</p> <p>(3) The current ISDs are sourced from the MAA. Where not specifically stated in the MAA this is based on the final equipment delivery date.</p> <p>(4) For the AOS project, subsequent to project approval a revised MINCS(L) was approved in October 2002 with an ISD of 2003-04.</p> |                                      |                               |                          |                                 |                                  |

Source: Analysis of Defence and DMO project documentation

## Program overview

### Top 20 Army Minor projects

**3.30** ANAO compiled detail on the top 20 Army Minor projects, recorded in the FYMCEP by value as at 1 July 2005, to determine the status of the projects and the timeframe for delivery of capability being procured through the projects.<sup>43</sup> Table 3.3 illustrates the high incidence of slippage of projects from the initial schedule. While recognition of financial slippage is well documented within the Program, the extent of slippage in the delivery of capability from original in-service dates is less transparent.

**3.31** Fifteen of the top 20 projects either did not meet the original in-service delivery date, have already passed the forecast delivery date, or have revised in-service delivery dates. One project was delivered to the original schedule, two ongoing projects are tracking to schedule, one project was terminated, and the in-service date for one ongoing project was under review at the time of the audit.

**3.32** In ten of the top 20 projects, approved project costs have increased from the initial approval to account for cost increases due to changes in project scope and/or inflation. The cost for six of the 10 delivered projects had increased due to the passage of time or changes in scope while four of the current nine ongoing projects have experienced cost increases.

**3.33** An issue in compiling the detail on the top 20 Army Minor projects was accessing approval documentation providing the mandate for the projects. The Defence Instruction for the Army Minors Program identifies CDG as responsible for the archive of endorsed submissions for Army Minor projects.<sup>44</sup> In practice, a central repository of submissions supporting approved Army Minor projects has not been maintained. ANAO was unable to obtain evidence of the endorsement of a number of submissions supporting approved projects. While this generally related to older projects still included in the approved Army Minors Program, the endorsement is significant in providing the mandate for the projects. ANAO noted that AHQ now manages documentation supporting project approval in the corporate electronic document management system.

<sup>43</sup> ANAO notes a number of the projects remained on the Program despite capability being delivered in previous financial years.

<sup>44</sup> While the Defence Instruction for the Army Minors Program identifies CDG as responsible for archiving approved project submission, the electronic document management system used by both AHQ and DMO was not accessible to those in CDG required to exercise that responsibility.

**Table 3.3 Top 20 Approved Army Minor Projects as at 1 July 2005**

| Project Description                                      | Initial<br>Approved<br>Project<br>Cost<br>\$m | Current<br>Approved<br>Project<br>Cost<br>\$m | Date of<br>Project<br>Approval <sup>1</sup> | Original<br>In-<br>service<br>date <sup>2</sup> | Revised/<br>Actual<br>In-service<br>date <sup>3</sup> |
|--|---|---|---|---|---|
| <b>Delivered Capability</b>                              |   |   |   |   |   |
| 1. Mounted Tess Precision Gunnery Trainer                | 10.2  | 12.1  | Aug 1994                                    | 1994-95   | <b>2003-04</b>  |
| 2. Hand Held Rangefinders                                | 4.0   | 16.1  | Jan 1995 <sup>4</sup>                       | 1994-95   | <b>2002-03</b>  |
| 3. Tactical Engagement Simulation System                 | 8.5   | 19.0  | Aug 1995                                    | 1995-96   | <b>2002-03</b>  |
| 4. Combat Boots  | 12.4  | unchanged                                     | Sep 1992                                    | 1996-97   | <b>2000-01</b> <sup>5</sup>                           |
| 5. Tactical Training Simulation Capability               | 9.4   | unchanged                                     | Jan 1999                                    | 1999-00   | <b>2004-05</b>  |
| 6. Light Engineer Tractor                                | 7.6   | 11.6  | Dec 1997 <sup>6</sup>                       | 2000-01 <sup>7</sup>                            | <b>2001-02</b> <sup>8</sup>                           |
| 7. Tactical Assault Equipment For Special Forces         | 13.1  | 14.4  | Feb 1999                                    | 2000-01   | <b>2002-03</b>  |
| 8. Standard Defence Supply System Roll-out to Army Units | 15.1  | 16.4  | Dec 1999                                    | 2001-02   | <b>2003-04</b>  |
| 9. Bridge Erection and Propulsion Boat                   | 15.9  | 16.6  | Nov 2002                                    | 2003-04   | <b>2004-05</b>  |
| 10. Wet Weather Ensemble                                 | 4.7   | 10.8  | Sep 2002 <sup>9</sup>                       | 2003-04   | <b>2003-04</b>  |
| <b>Current Ongoing Projects</b>                          |   |   |   |   |   |
| 11. Field Materiel Handling Capability Medium            | 10.4  | unchanged                                     | Oct 2001                                    | 1997  | 2005-06   |
| 12. Medium Bulldozer                                     | 14.5  | 16.3  | Dec 2002                                    | 2002-03   | 2006-07   |
| 13. Medium Grader  | 14.4  | 16.2  | Dec 2002                                    | 2002-03   | 2006-07   |
| 14. Artillery Orientation System                         | 10.5  | unchanged                                     | Oct 2001                                    | 2003-04   | 2006-07   |
| 15. Army Technical Data Management Capability            | 17.0  | unchanged                                     | Jun 2005                                    | 2004-05   | 2006-07   |
| 16. Medium Artillery Replacement Ammunition              | 19.0  | unchanged                                     | May 2004                                    | 2005-06   | 2007-08   |
| 17. Echidna HRPV Replacement                             | 18.6  | unchanged                                     | Apr 2005                                    | 2006-07   | 2006-07   |
| 18. Field Refrigeration Storage and Distribution         | 18.5  | 20.1  | Feb 2004                                    | 2006-07   | Under review by Defence <sup>10</sup>                 |
| 19. WTSS Capability Enhancement                          | 14.8  | 16.4  | Mar 2004                                    | 2007-08   | 2007-08   |
| <b>Terminated Project</b>                                |   |   |   |   |   |
| 20. Leopard Life of Type Extension                       | 17.0  | unchanged                                     | Mar 1998                                    | 2000-01   | Project terminated                                    |

**Notes:**

- 1) Based on final delegate (Minister for Finance and Administration) approval, except for Combat Boots, which was approved by the then Minister for Defence.
- 2) Based on in-service date specified in the project submission or capability proposal document which outlines cost, scope and method of procurement. Where a date has not been specified, the ISD is based on the year in which significant expenditure is last recorded in the proposed expenditure spread in the capability submission or, where the submission was not located, on planned introduction to service date in the Equipment Acquisition Strategy.
- 3) Based on in-service date specified in MAA. Actual dates of in-service delivery for equipment already procured are noted in bold, and are based on introduction to service dates noted in project closure documentation.
- 4) Defence advised that the Hand Held Rangefinder project received project approval in January 1995 and was placed in the unapproved program at \$4 million. Defence further advised that the project was transferred into the approved program in March 2000.
- 5) Additional Boots to the number approved under the project were procured using project funds and delivered in 2003-04.
- 6) Based on Defence advice of April 2006.
- 7) Based on Defence advice in April 2006 for final year of programmed expenditure. Information checked against timing of actual expenditure.
- 8) Based on Defence advice in April 2006 that formal transfer to fleet was approved in June 2002.
- 9) The Wet Weather Ensemble project was approved by CA in September 2002 at \$4.7 million. In June 2003, the Minister for Defence provided approval to increase project cost to \$10.8 million.
- 10) Defence advised in April 2006 that the in-service date for this project is under review and that the current programmed spend spread is from 2006-07 to 2009-10.

Source: ANAO analysis of Defence and DMO project documentation.

### *Medium Artillery Replacement Ammunition Project*

**3.34** The lack of transparency of the slippage from the original in-service date is demonstrated in the Medium Artillery Replacement Ammunition Project (MARAP).<sup>45</sup> This recently approved high value Army Minor project has involved significant slippage in the expected delivery date for the capability. A submission for the project was raised in 2002, and the project was approved at a cost of \$19 million in May 2004. The project submission included an in-service date of 2005–06, based on an initial equipment order date of December 2004.

**3.35** The MAA of June 2005 amended the in-service date to 2007–08. Release of the RFT was listed in that Project Plan with an earliest date of May 2005 and

<sup>45</sup> This Army Minor project proposes the acquisition of a new family of 155mm munitions to provide a significant increase in operational capability for combat force indirect firepower in terms of lethality, range and coverage. Introduction into service of this ammunition will enhance the in-service M198 155mm Howitzer capability. The project is linked to LAND 17, which aims to enhance or replace the 155 mm platform. The principal aim of the project is to and LAND 17 is to ensure that munitions acquired will not be obsolescent, or technologically inferior, on introduction of any LAND 17 155mm howitzers. Any integration and transition issues will be the responsibility of LAND 17. Subsequent to the Minor project, stock holdings of MARAP ammunition will be procured.



a latest date of November 2005. However, as at February 2006, the acquisition strategy had not been finalised. The further consideration and approval of a proposed change in project scope and a revised acquisition approach will further affect the in-service date for the project.

**3.36** A change in scope to MARAP was endorsed by key stakeholders in November 2005 and a higher delegate submission for the scope change was being developed for approval at the time of audit fieldwork. The scope change involves the removal of the requirement to procure three years of operating stocks with project funds, and application of that saving to fund the acquisition and qualification of a greater number of ammunition types. Defence advised that the original scope of the project would not provide the Australian Defence Force with the full range of 155 mm ammunition needed for future operations. Defence advised that this Minor Army project is not a simple acquisition and that it has broader strategic consequences still being examined because of the impact that a source selection decision may have on indigenous large calibre ammunition production.

**3.37** Defence advised that delays have been caused by the need to seek endorsement from Government about Major capital project LAND 17, due to linkages to future indigenous ammunition production, and that there was a clear need to hold off on progressing the Minor project until after the impact of the Government's decision on LAND 17 was known. It is expected that LAND 17 will be able to utilise the proposed MARAP family of ammunition. Defence advised in June 2006 that, 'following the acceptance testing for MARAP it is envisaged that the acquisition of the MARAP ammunition family will be supplemented by the Major capital project, JP 2085, together with AHQ Sustainment funding'.

### **Other Minor projects: Interface with Major projects**

**3.38** In a number of Army Minor projects reviewed, the ANAO identified that the delivery of a capability requirement for Army was being achieved via the combination of a Minor and a Major project. Although the relationship between a Major and a Minor project is identified in project documentation for the Minor project, ANAO considers the use of Minor Capital funding may potentially reduce the transparency of expenditure on capability to be delivered through a Major project. The ability of the Project Manager of a Minor project to manage the schedule of the project independently to that of



the Major project is adversely affected where key milestones for the projects are interdependent.<sup>46</sup>

### 3.39 Defence advised ANAO in June 2006 that:

This has long been a problem. The problem can be mitigated by ensuring that:

- Projects are appropriately funded to provide the required level of capability, including risk mitigation activities, as opposed to the chronic under funding that Land projects have traditionally suffered from. If a project is sufficiently funded then there will be no requirement to develop a minor project to fund the capability shortfall, e.g. GBAD vehicles;
- Where possible, the Minor and Major projects should be sponsored from within the same section. An example of this is LAND 17 and MARAP which is sponsored by Combat Systems Support Section in LD Branch, CDG, covered by Combat Support Development Section in AHQ and Combat Support SPO in LSD, DMO. This approach immediately generates a greater level of awareness of projects with critical dependencies. While this approach is desired, it is acknowledged that this will not always be achievable; and
- Integrated Project Teams (IPT) are given greater prominence as the vehicle through which the integration of requirements, schedules etc are managed. The IPT structure should have working level representation, but the IPT should equally be able to be represented at 1 Star level to ensure appropriate decision making power is available to make decisions as well as providing oversight and guidance. In short, if issues are identified at a lower level and reported higher then they can be adequately dealt with. This needs to be a joint effort between, CDG, DMO and AHQ. This could be done better.

**3.40** The Army Minor project for the Portable Search and Target Acquisition Radar (PSTAR) Upgrade provides an example of a Minor project being initiated to address a capability trade-off for a Major Capital acquisition resulting from a budget shortfall in that Major project. The profile for that project is detailed in Figure 3.2.

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<sup>46</sup> Defence advised that capability managers in CDG co-ordinate their Minors programs using processes aligned to the capability life cycle, and reviews of relevant Minors documentation by appropriate Branches within CDG is designed to ensure co-ordination and integration between Major and Minor Programs.

## **Figure 3.2**     **Portable Search and Target Acquisition Radar Upgrade Project**

### *Purpose*

This Minor project aims to upgrade the Army's five in-service Portable Search and Target Acquisition Radar (PSTAR) to the extended range standard of equipment being acquired under Major Project Land 19 Phase 6.<sup>47</sup> PSTAR equipment is being upgraded to extend range capability as the discontinuation of production of key components and obsolescence has rendered existing equipment unsupportable beyond 2006.

In concert with the Major project, the Minor project for the PSTAR Upgrade will provide a common fleet of target sensors, which will contribute to short range air defence capabilities. The upgrade is being conducted through an amendment to the prime contract for Land 19 Phase 6. The Minor project is being managed by the existing Land 19 Phase 6 Major project team.

### *Project Approval*

Project documentation for Major project Land 19 Phase 6 indicates that the opportunity to progress a Minor capital submission as a means of managing the Major project's funding shortfall was considered in March 2003. Enhancement of existing capability was included in the original scope of the Major project. However, following issue of a sole source tender it was determined that procurement of the capability would not be achievable within the approved project cost. A project cost review in January 2003 resulted in the removal of the upgrade of existing equipment, projected to save \$5.1 million, from the scope of the Major project, and a recommendation to acquire the upgrade via a Minor project. An Army Minor project submission was subsequently raised acknowledging that the upgrade of the in-service PSTAR was considered by Project Land 19 Phase 6 but could not be achieved due to pressure on the project budget. Project approval was provided by the then Minister for Defence in March 2004 for \$7.517 million. The capability submission indicated an anticipated in-service date of March 2006.

### *Procurement*

At the time the contract for the Major project was negotiated in May 2003, capability trade-offs were considered and the upgrade of existing equipment was removed and included as an option in the contract. This Minor project is being delivered through the exercise of that option, via a contract change proposal, and required a mobilisation payment representing approximately 30 per cent of the option cost to be paid three months after project approval. Due to the timeframe required for the exercise of the option, the capability submission for the project was approved out-of-session by the Management Committee. The only other acquisition strategy considered, that remained within the cost definition of a Minor project, was contracting directly with the same supplier engaged for the Major project. The then Minister for Defence was

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<sup>47</sup> Land 19 Phases 5A and 6 were approved in the 2001–02 Budget. Phase 6 will procure additional equipment and enhance existing capability by providing Army's 16 Air Defence Regiment with two complete RBS-70 batteries. Both Phases had a total approved budget of \$110 million. Source: ANAO Audit Report No.40 2005–06 *Procurement of Explosive Ordnance for the Australian Defence Force (Army)*.

advised that utilising the contract option available under the Major project would be less than half the cost of contracting directly with that supplier for the upgrade.

Monthly management reporting for the Minor project indicates a forecast in-service date of 2006–07. The report identified that design faults being experienced with the new standard of equipment in the Major project may prevent finalisation of the upgrade of existing equipment and delay the Minor project.

Source: Analysis of Defence and DMO project documentation

**3.41** This project raises the issue of the transparency of the cost of procuring capability to address the approved scope of a Major project. The delivery schedule for the project has also been affected by Major project milestones, as delays experienced in finalising the build standard for the equipment upgrade, a deliverable under the Major project, has resulted in schedule delay for the Minor project. At the time of audit fieldwork, approximately \$1.5 million scheduled to be spent in 2005–06 on the Minor project was likely to be re-programmed for 2006–07. DMO have indicated that delays in the Minor project result from problems encountered beyond the ability of DMO to influence.

## Capability requirement

**3.42** Delay in the scheduled delivery of capability through the Army Minors Program means that an identified capability requirement was not progressed in a timely manner. Project documentation supporting the requirement for new equipment or the upgrade of existing equipment reviewed by ANAO generally identified an urgent need for the capability. Project submissions frequently refer to the impending obsolescence of existing equipment and to the equipment being no longer cost effective to maintain, unreliable and restrictive in providing the required capability. Management of these costs is not assisted by the elapsed time involved for many of the Army Minor projects, frequently caused by lengthy approval processes, staffing constraints<sup>48</sup> and protracted acquisition processes.

**3.43** Delay in delivering identified capability requirements can result in additional cost being incurred by Defence. This may include the need to incur high maintenance costs to keep equipment functioning well beyond the expected life of that equipment, and the need to hire alternate capital equipment to temporarily fill the capability requirement.

<sup>48</sup> Army Minor projects affected by staffing issues include the Medium Bulldozer, Motorised Grader, Field Refrigeration, and the Rapid Shelter System projects.

## *Medium Bulldozers and Graders projects*

**3.44** Delay in the procurement of capability to replace aged equipment is illustrated through the project profile in Figure 3.3. The costings for the projects to procure Medium Bulldozers and Medium Graders were developed in 2000–01. The approval documentation of December 2002 noted that the equipment would be introduced into service during 2003. In December 2005, an increase in project cost, based on indexation updates, was approved to reflect real increase in prices since the original costings and the then expected delivery of the capability in 2006.

### **Figure 3.3 Medium Bulldozer and Grader Projects**

#### *Purpose*

The procurement of earthmoving equipment is important to Army capability in order to undertake battlefield tasks and construction. The Bulldozer project is to acquire a fleet of 39 medium bulldozers to replace the current fleet which was first introduced into service in 1981, and has undergone two service life extensions between 1991 and 2001. The Grader project is to provide a fleet of 40 motorised graders. The current fleet, which was introduced into service in 1979, has undergone service life extensions from 10 to 15 years, and again from 15 to 20 years. The submissions for both projects proposed the commercial, off-the-shelf acquisition with in-service dates of 2002–03.

#### *Project Approval*

The project submissions were developed in 2001 and endorsed in February 2002. Project approval was progressed by DMO directly to the then Minister for Defence and Minister for Finance and Administration, rather than through Army. Joint Ministerial approval was received in December 2002 (Medium Bulldozer for \$14.5 million and Medium Grader for \$14.4 million). The project experienced significant delay between project approval and the commencement of procurement activity.

The Minister for Finance and Administration, in providing project approval, suggested that a commercial lease arrangement be considered during the tender evaluation. In March 2003, the then Minister for Defence was advised of the intention to purchase core equipment for Regular Army Units and then to investigate through a separate RFT the cost effectiveness of leasing versus purchasing equipment to support General Reserve units. In June 2003 the then Minister for Defence advised that he disagreed with this approach and considered the tender evaluation should look at whether commercial lease arrangements would achieve better value for money.

In August 2003, a Minute was provided to the then Minister for Defence noting a single RFT was being developed for both projects based on four options including, buying the full fleet, leasing the full fleet, buying a core element of the fleet and hiring the remainder on an as required basis, and leasing a core element and hiring the remainder on an as required basis.

On 16 December 2003, the Minister for Defence noted the proposed procurement plan but commented that he did not think it was 'sufficiently creative'. In May 2004, DMO advised AHQ that the two staff assigned to these projects had been reallocated to a Major project. In July 2004, the then Minister for Defence approved the procurement

plan for the projects, following DMO consultation with industry on suggestions proposed by the Minister. A single RFT was approved. The high priority of these projects was raised at the Management Committee in July 2004. The Project Office was re-established in June 2005 following recruitment action. In July 2005, an increase in project cost of \$10.2 million for both projects was sought, comprising inflation since the costing of the project in 2000–01 (\$5 million), real cost increases based on current market prices for the equipment (\$2.4 million) and a higher contingency component (\$2.8 million). The increases were not approved. An increase in funds of \$3.6 million for the two projects was subsequently approved to cover inflation since project approval.

### *Equipment Acquisition Strategy (EAS)*

A revised EAS was approved by HLS in August 2005. The RFTs for the supply of the equipment and provision of in-service support were released in September 2005, including a number of options spanning the procurement of the equipment through to the leasing of the equipment via either finance or operating lease arrangements. The evaluation was completed and approved for the acquisition of the equipment in December 2005.

### *Procurement*

While the requirements for a fleet of medium bulldozers and graders were developed as separate capability submissions and approved as separate projects, the procurement of the equipment is being conducted under a single acquisition strategy and via a single RFT. Subsequent to audit fieldwork a preferred tenderer was selected and a contract let. The proposed expenditure for the medium bulldozer and grader projects for 2006–07, at \$15.3 million and \$15.6 million respectively including inflation updates, accounts for approximately 45 per cent of funding available for Army Minor capital procurement in 2006–07.

Source: Analysis of Defence and DMO project documentation.

**3.45** The inability to meet the original in-service dates (of 2002–03) for these two projects has required Army to hire commercial equipment to provide the capability that was to be delivered through the projects. This resulted from the lengthy consideration of the preferred acquisition strategy and competition for staff resources.

### *Other projects*

**3.46** The Field Materiel Handling Capability Project, for the acquisition of 30 forklifts and associated equipment, is an example of delay in the delivery of capability. The project submission was approved by the Deputy Chief of the General Staff for \$10.4 million in December 1994. The submission noted that the existing equipment had exceeded its life of type and was no longer cost effective to maintain. The submission included an in-service date of December 1997. Joint Ministerial approval was obtained in September 2001. Minutes seeking that approval identified the equipment as available commercially off-the-shelf, thus reducing risks and delays. As at 1 July 2005, only 40 per cent

of the projects approved funds had been expended against this project.<sup>49</sup> In June 2006 Defence advised ANAO that:

It should be noted that although approved in September 2001, actual Ministerial approval was not received at the project office until February 2002. With this in mind the actual time frame of 3 years to ISD as specified in the [project submission] was achieved within 8 months of the 3 year target with all vehicles delivered into service by October 2005. Although the [project submission] stated [commercial off-the-shelf], the reality was that this capability had a very small marketplace supply base and some development was required. This resulted in an extended Acceptance Testing and Evaluation program to ensure the capability was delivered with a high level of confidence that all requirements were met.

**3.47** A further example is the Field Refrigeration Storage and Distribution Project. The then Minister for Defence was advised, in the submission seeking project approval in December 2003, of the urgent demand for new refrigeration due to the requirement for immediate replacement of capability well beyond its life of type. The Minister was further advised that expenditure on the project would commence in 2004–05. The project submission supporting that higher delegate submission identified that the current fleet was no longer economically viable and didn't comply with extant legislation in several areas. A maintenance liability bill of \$7.35 million was estimated through to the proposed ISD of 2006–07 and it was noted that significant reliance was placed on the lease of commercial refrigeration to bridge capability shortfalls. All elements being sourced through the project were identified as generic commercial off-the-shelf items, easily sourced and widely available. This project had no expenditure recorded against it as at 1 July 2005.

**3.48** The project for the procurement of 81mm Long Range Mortar for \$8.5 million was approved in November 2003. The then Minister was advised in the submission for project approval that the current mortar would reach the end of its useful life in 2005 and to avoid a capability gap acquisition was required before 2005. The signed MAA of June 2005 notes the acquisition strategy was being developed and the earliest in-service date was included as December 2007. Defence advised that delays to the Long Range Mortar project prevent Army from benefiting from the improved range the new device will provide. However, Defence considered that the existing equipment provides

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<sup>49</sup> Defence advised ANAO in April 2006 that total project expenditure to the end of February 2006 was \$9.052 million and that the project is planned to close in 2005-06 with a total spend of \$9.48 million.



capability for Army and advised that Army's Capability Manager is monitoring the situation.

**3.49** The delivery of the Artillery Orientation System capability has also experienced significant delay, despite the capability submission identifying that in the absence of the new capability being introduced 'the ADF has a significant deficiency in guaranteeing provision of accurate and timely fire support'. There was a delay of almost four years between the original capability endorsement in November 1997 to project approval in October 2001, without an amendment to the in-service delivery date of 2003–04. An MAA dated June 2005 revises the in-service delivery date to November 2006 and notes that the project is on schedule.

**3.50** Defence advised ANAO in April 2006 that:

the capabilities identified such as bulldozers, graders and field refrigeration are all capable of being supplemented from the commercial world at short notice should an urgent operational need arise. As such the delayed introduction of these projects can be risk managed more effectively than might be the case with some other projects. It should be noted that a rapidly acquired purely commercial item may well suffice for an operation but in the longer term the equipment sought by the projects is still required.

**3.51** Defence further advised ANAO in August 2006 that:

Delay in project delivery does affect Army capability. This varies depending on the circumstances of the project. In many cases the main effect is purely financial in that Army must maintain equipment that is beyond its economic life of type or lease commercial equivalent equipment. An example of this impact is the late delivery of the new bulldozers and graders.

Other impacts of delays in projects that seek to introduce new capabilities or enhance current ones may be more profound but would not fully manifest themselves unless the capability is called upon to perform in operations. The delay does however directly impact on Army's function to raise, train and sustain capabilities to achieve its mission. An example is the Artillery Orientation System which provides a GPS independent method of siting artillery. The capability deficiency does not appear to have impacted greatly on Army because artillery has not been required on operations in a GPS denied environment during the period of the delay.

## 4. DMO Procurement Management

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*This chapter examines the management of the approved Army Minors Program from the transition of projects from Army to DMO for procurement through to closure of the project.*

### Framework for procurement

**4.1** In June 2004, a manual titled *Project Management Methodology – Minors* (PMMM) was promulgated by DMO specifically for the management of Minor projects. The manual is an evolution of the methodology applicable to Major Capital acquisition projects, and is tailored for the management of Minor projects. The PMMM is accessed through the Quality and Environment Management System (QEMS) which is DMO's primary reference for capital equipment acquisition and logistics policy and management practice.<sup>50</sup>

**4.2** ANAO considers that the ability of QEMS to provide a user-friendly, one-stop means of accessing procedural documentation is compromised by repetitive information, the system being complex to navigate through, and a lack of identification of key documents and their relative importance.

**4.3** The performance of projects is assessed by DMO against three criteria – budget, capability and schedule. Throughout 2005–06, a number of different management reporting requirements have been imposed on project managers of Army Minor projects as DMO transitions to a new Management Reporting System (MRS) and a new project scheduling tool, Improved Project Scheduling and Status Reporting (IPSSR).

**4.4** Project managers identified to ANAO the overhead incurred by the requirement to provide multiple monthly reports in different formats during the transition process. This was exacerbated by the need for manual entry of data into the reports, including the manual transfer of that data from one system to another. The transition process has resulted in LSD being unable to prepare summary reporting on the status of projects in the Army Minors Program since August 2005.<sup>51</sup> At the time of audit fieldwork, project managers

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<sup>50</sup> QEMS is an electronic gateway developed within DMO to provide project teams and managers with up-to-date information on policies, processes and practices associated with supporting the DMO Business Process Model.

<sup>51</sup> Prior to May 2005 LSD prepared summary reporting on the status of over 40 Army Minor projects. From May 2005 to August 2005 summary status reporting applied only to projects with individual MAAs. At the time of audit fieldwork, there were 10 projects with individual MAAs.



were working towards populating the MRS and IPSSR with the data necessary to generate summary reporting.

**4.5** Monthly reporting within LSD on Army Minor projects has previously been provided through use of a commercially available project management database tool, which generates reports indicating the health of the project in terms of current trends for schedule, capability, funding and staffing. The tool also held templates for key documents to be developed in the management of Army Minor projects. DMO advised that a decision on the future validity of this project management tool is still outstanding and that the tool is duplicated to a large degree by IPSSR and the Defence's Document Repository Management System (DRMS).

**4.6** Monthly project reports, known as Acquisition Overview Reports, now produced from the MRS, provide for a maturity score and an assessment of project trends for cost, schedule and capability with indications as to whether those criteria are healthy, marginal or of concern, and further whether that position is improving, constant or worsening. The trends included are based on a subjective assessment by the project manager. DMO advised that it is planned that Minor projects will follow the path of Major projects and report each month into the Corporate Agency Agreement Reporting System (CAARS) system of the MRS. The MRS system draws automated schedule forecasts from IPSSR and actual financial data from ROMAN on a daily basis. The project manager then adds comments to this information and signs off.

**4.7** To improve project management of Army Minor projects, the Improved Project Scheduling and Status Reporting (IPSSR) scheduling methodology is being progressively implemented for Army Minor projects. DMO advised that the success of the initiative to implement IPSSR in LSD for Majors resulted in HLS endorsing the further roll-out of IPSSR to the LSD Minor projects within the Army Minor Capital Program.<sup>52</sup>

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<sup>52</sup> The roll-out of IPSSR to Army Minor projects not managed within LSD is dependent on the DMO business case to endorse bringing all DMO Minor Capital Projects into the IPSSR initiative.

**4.8** The roll-out of IPSSR to the Army Minors Program should:

- better align the management processes for Minors with those for Major projects;
- facilitate improved corporate visibility of Minor capital projects; and
- assist in the planning of projects, in terms of assessing at an early point of proposal development the realism of initial schedules and by requiring a comprehensive breakdown of tasks to be completed within the project.<sup>53</sup>

**4.9** ANAO considers that the development of benchmark timings for completion of project stages would assist in the development of realistic estimations, particularly for the project approval stages and where inexperienced project managers are assigned to Army Minor projects. In April 2006, DMO advised that IPSSR includes the development of robust schedules to aid first and second pass endorsement of Minor projects. The generic work breakdown structure incorporates the key documentation and effort to be completed to successfully gain project endorsement. DMO further advised that the implementation of the MRS (CAARS) system will allow legacy financial systems, and duplication of work between systems, to be abolished.

**4.10** To supplement committee oversight of the Army Minors Program, and to provide high level management oversight, a detailed monthly review process for selected projects was implemented by DMO between March and September 2005. The intent of these monthly reviews was to enable the LSD senior executive team to examine specific projects in detail on a cyclical basis, with emphasis on the higher value projects.

**4.11** DMO advised that, from March 2006, the monthly reviews of selected Minor projects by the LSD Executive has been replaced by the LSD Army Capability Acquisition Program (ACAP) Project Review, to be held three times a year.<sup>54</sup> The Project Review is attended by the LSD Executive and key personnel from the policy, finance and project scheduling/performance measurement areas. The Project Managers for each active project are required to present the status of their projects individually. The review is to include a project overview and cover key elements including schedule, financial

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<sup>53</sup> The IPSSR tool also enables financial forecasts to be derived. These forecasts have traditionally been manually placed into the financial systems that help to manage the Minor Project Program.

<sup>54</sup> The Project Review will be held one week prior to the Review Committee, now renamed the ACAP Budget Review.

phasings, risks and problems encountered. Within DMO, the Army Minors Program has also been renamed the Army Capability Acquisition Program in a further effort to raise the profile of the Program.

**4.12** The introduction of this detailed project review arrangement represents an important initiative in improving management oversight of the Army Minors Program. Projects with individual MAAs are also required to utilise the CAARS to report on the Program.

## Staffing of projects

**4.13** The capacity of DMO to deliver capability requirements is a key factor in the successful management of the Army Minors Program. Staffing levels in LSD have been recognised as contributing to the difficulty in managing Army Minor projects to schedule.

**4.14** Issues that have effected DMO's ability to staff projects and to manage project schedules include:

- competing priority to staff Major projects, and the re-allocation of project managers away from Minor projects;
- high concentration of projects in specific SPOs;
- elapsed time in completing the project approval stage;
- turnover and availability of project managers including the timeframe for recruitment of project managers in DMO; and
- the actual duration of the Minor project, influenced by the realism and robustness of project schedule and capability requirements.

**4.15** In the Medium Bulldozer and Medium Grader projects, significant delays occurred between project approval and procurement activity. This was due to a lack of project staff from 2002 to 2005, in addition to ongoing consideration of the acquisition strategy for the equipment involving DMO and the Minister's Office. Project staff were re-allocated to other higher priority projects within the same SPO in May 2004. The Project Office was re-established and staffed in June 2005.<sup>55</sup> Defence advised in June 2006 that 'Army did not provide the necessary manpower resources to undertake this work. During this period the uniformed Army manpower within LSD fell from

<sup>55</sup> The projects had each received joint Ministerial approval by December 2002, however, as at 1 July 2005 only \$50 000 had been spent on the two projects. At the July 2004 Management Committee meeting Army noted that the two projects remained very high priority.

261 in July 2004 to 230 in January 2005. It has been further reduced to currently stand at 199 in June 2006.'

**4.16** The need to assign appropriate and continuing staff to Minor projects was identified in the lessons learned component of the project closure report for the Bridge Erection and Propulsion Boat Project. That report noted that the assignment of a dedicated team of two full-time project office staff from the time of release of the RFT facilitated the timely delivery of capability. The project closure report also identified the need for all project office staff to have a sound understanding of DMO project management methodologies and processes. The conduct of that project represented sound administrative practice demonstrated by the documentation supporting management of the project and the timely delivery of the capability and completion of the project.

**4.17** As part of the broader concern relating to schedule performance of projects within the Army Minors Program, consideration by DMO of its capacity to staff new projects, in concert with existing ones, would assist in ensuring that sufficient project staff resources are allocated for the duration of projects. A transparent methodology and process for the prioritisation of Minor projects would assist in the management of staff resources to meet planned project timetables of delivery.

**4.18** Staff resource constraints within DMO to support the Army Minors Program have been recognised and are being addressed in LSD through the identification of additional staff required to effectively manage the projects, and the commencement of the process to recruit to those additional positions. Head of LSD announced in March 2005 that recruitment action would commence to double the number of staff allocated to Army Minor projects, increasing staffing to an average of about one person per project. The minutes of the Review Committee meeting of 16 March 2005 noted that HLS considered that this was still well short of the full staff needs of the Program.

**4.19** Prior to the recruitment action initiated in 2005, the number of positions allocated to the Army Minors Program in LSD was 25. LSD advised ANAO that 36 new positions with responsibilities for Minor Capital projects have been identified and created in LSD. More than half of these positions have been allocated to the Engineering SPO. As at February 2006, 20 of the 36 new positions had been filled. Recruitment action for the remaining 16 positions was still ongoing.

**4.20** Submissions for Army Minor projects do not routinely include identification of staff resource requirements, or required competencies. ANAO review of selected projects has highlighted the need to better identify and match project resource requirements with DMO staff availability in the planning stage, and to ensure the involvement of the DMO in the project planning process to help avoid delays in the various stages of project management.<sup>56</sup>

**4.21** Army Minor projects have generally been staffed with a single project manager within a SPO. Given the breadth of skills required to manage a procurement process, the staff levels and identification of skills required to effectively undertake a project should reflect the complexity of the project.<sup>57</sup> ANAO considers that the breadth of responsibilities assumed for Minor procurement projects generally warrants the allocation of experienced project managers to Army Minor projects. DMO acknowledged the value from allocating experienced project managers, subject to availability, but also the need to create opportunities to 'grow' project managers.

## Management of projects

**4.22** In May 2004, DMO commissioned a review of the project plans for a selection of Minor projects to assess whether the schedules and planned expenditure in 2004–05 for high value projects included in the Program were realistic. The report of July 2004 found that in many cases scheduling of projects was done poorly or not at all, many project managers lacked the appropriate qualifications, and staff shortages affected the ability to meet planned timeframes. The review identified that a standard approach was not applied to managing Minor projects and there was a need to rationalise reporting requirements. The review identified that project information in the program management tool did not readily provide insight to the current status of a project or the history of the project, and project managers appeared not to maintain the financial tables in that tool.

**4.23** The report also identified the need for planned risk mitigation actions and the incorporation and use of contingency funds against clearly recognised

<sup>56</sup> In response to the under-programming identified during the Management Committee meeting in September 2005, the Chair requested DMO to advise of its capacity to accept new work in the various SPOs.

<sup>57</sup> Skills levels in Minor projects have been identified within LSD as low compared to Major projects, reflecting the use of less experienced staff and the narrower skill set of the single resources generally applied to Minors.

risk. The report noted that the time required for the various elements of the project were not well appreciated and areas such as obtaining approvals, tender and contract preparation negotiations and production times are grossly underestimated. The findings of the review were consistent with ANAO review of project management of Army Minor projects.

**4.24** ANAO review of selected projects and analysis of the top 20 projects by value highlighted delays in the various stages of projects (see Table 3.3). Causes of delays in delivery against project schedules are consistent with those documented by DMO and include:

- unrealistic and unchallenged baseline schedule and budget;
- programming of projects based on underdeveloped requirements;
- inadequate project management methodology, particularly scheduling, and poor project management discipline;
- inadequate staff allocation to Minor projects;
- poor performance by, and inadequate supervision of, contractors;
- reviews focused only on budget; and
- discontinuous spend spreads with spending concentrated in the last quarter of the financial year.

**4.25** These problems are not confined to 'legacy' projects that predate the implementation of improved documentation of procedures for Army Minor projects for both the approval stage and for project management.

## **Combat Boots Project**

**4.26** Management of the Combat Boots Minor Project was considered by ANAO, with reference to a Defence internal audit report of July 2004.<sup>58</sup> Consistent with findings of that audit, ANAO identified deficiencies in the management of the project. A profile of the project is provided at Figure 4.1.

### **Figure 4.1 Combat Boots Project**

#### *Purpose*

The purpose of this project was to replace the general purpose boot that was introduced into service in the 1960s for use in Vietnam. Developments in technology, inconsistent boot sizing, and a change in the 'Australian foot' were identified in the project proposal.

<sup>58</sup> *Joint Material Support Branch Minor Projects – Combat Boots*, Management Audit Branch, Inspector General Group, 9 July 2004.

### *Project approval*

The original concept for the project was put forward in an Army Capability Proposal approved in June 1990. The original higher delegate submission, seeking project approval, of January 1992 was revised at the request of the then Minister for Defence due to his concern that the boots would take some five to six years to acquire. The expenditure spread approved by the then Minister in September 1992 provided for acquisition of the boots to be completed by 1996/97. The approved project cost of \$12.433 million covered the procurement of 67 050 boots. In May 1997, a Higher Delegate Submission requesting an increase in funding to \$13.162 million was rejected. Expenditure against the project at 1 July 2005 was \$12.42 million.

### *Project scope*

The approved capability proposal required that the combat boot be suitable for temperatures ranging from -10 degrees C to +45 degrees C. The Requirement Study Report of February 1991 concluded that there may be a necessity for more than one boot to be produced to satisfy this temperature requirement. Development trials conducted in 1997 also indicated that the project's performance requirements could not be met through the introduction of one type of boot. At the time the RFT was released for the procurement of the combat boots, a determination had not been made regarding the procurement of two types of boots and the RFT was issued for a hot weather boot.

Defence documentation indicates that, following award of the contract in September 1998, it was intended to seek an amendment to adjust the requirement for the 67 050 boots to a ratio of 60 per cent temperate boots and 40 per cent hot weather boots. A priority for the hot weather boot had been determined. Records of the Review Committee meeting of August 2000 reflect that delivery of the quantity of boots under the project (which were all hot weather boots) was largely complete and that the requirement for a temperate boot remained. However, an update on the project presented to the Review Committee meeting of July 2002 noted that remaining project funds were to be spent on additional hot weather boots in that financial year and that, when finalised, the specifications for the temperate boot would be held in abeyance for potential future production. In 2002–03 \$0.2 million was spent and in 2003–04 a further \$2.8 million was expended from the project.

### *Procurement*

The acquisition strategy approved in October 1991 supported a project methodology involving two stages with 35 per cent of funds to be spent on Government Furnished Equipment (GFE) and confirmation of the design of the boot, and 65 per cent on production. The acquisition strategy envisaged a phased approach to procurement, involving the development and trial of the boot to meet design specification, prior to full production.

The procurement of combat boots required that GFE be bought for production tooling, injection rubber soling moulds and lasts. The intention of DMO in providing tooling and moulds as GFE to the contractor was to ensure: uniform fit regardless of manufacturer; a more competitive tender as smaller firms would not be disadvantaged due to the prohibitive costs of buying production tooling; and the ability for Army to have flexibility in its choice of contractors. In practice, provision of these particular GFE items actually restricted Defence to a single manufacturer.



The contract for the supply of boots provided for 67 050 pairs of boots and an option for further purchases for three years from contract date. Amendments to the contract related to production of revised versions of the boots, not total numbers to be procured, and the final contract price after amendments was \$7.2 million. From March 1999 until August 2000, 67 050 pairs of Combat Boots were procured. Evolution of the design of the boot occurred during the production phase and resulted in three versions of the boot being manufactured under the contract.

In March 2003, a contract was let for a further 20 106 pairs of hot/tropical boots to utilise the remaining project funds. A Project Closure Report, endorsed by the Director of the Soldier Support SPO on 24 February 2006, identified that 103 131 pairs of boots had been procured via the project. The report did not refer to capability acceptance.

Source: Analysis of Defence and DMO project documentation

**4.27** Issues arising from this project include: the long lead-time in making available to Army a replacement combat boot to address shortfalls identified in the quality of the in-service boot; the specification of the boot not being adequately addressed through the provision of only hot weather boots; and deficiencies in the administrative process for closing the project.

#### *Project closure management*

**4.28** ANAO noted that the Project Office did not have appropriate documentation supporting acceptance into service of the boots by the stakeholders to the project. The acceptance of the hot/tropical boot in August 2001 did not specify the version or specification of the boot being accepted, but it noted the outstanding requirement to deliver a temperate boot in order to meet the full requirements of the project.

**4.29** The Project Closure report of February 2006 did not reconcile the number of boots procured utilising capital project funds against the project approval documented requirements. The number of boots identified as procured exceeded both the number approved for the project and the number reported to the Minister of Defence as procured outside the scope of the project. However, the costs reported against the project did not exceed approved funds. Defence advised ANAO in June 2006 that the project closure report identified the total number of boots acquired, both from the Minor project and from Sustainment, and that the age of the project and departure of staff inhibited the closure process.

**4.30** The Project Closure report did not identify whether the project had delivered the required capability or whether the boots had been appropriately accepted into service. ANAO considers that, in the absence of an approved revision to the specifications for the temperature range for which the combat boot was to be suitable, the capability sought from this Army Minors project



was not satisfied with the procurement of only a single type of boot. ANAO notes that the outstanding requirement to deliver a temperate boot in order to meet the full requirements of the project had been identified in August 2001.

### *Approval of project scope change*

**4.31** ANAO notes that project documentation included approval by the then Minister for Defence, but did not also include project approval from the then Minister for Finance and Administration, as required for all projects exceeding \$8 million. A variation to the scope or cost of a Minor project requires approval from the original project approval delegate, unless the revised project cost exceeds the delegation of the original approver in which case approval by a higher delegate is required. In this project, approval was not obtained from the original delegate or the Minister for Finance and Administration to change the scope of the project to acquire additional boots using project funds.

**4.32** In response to a recommendation of the Management Audit Branch of Inspector-General's Group review of the Combat Boots project,<sup>59</sup> a Minute was provided to the then Minister for Defence in June 2005, recommending that he note the procurement of an additional 20 106 pairs of Combat Boots outside the scope of the project. Defence did not provide a similar brief to the Minister for Finance and Administration. As the approved number of boots had been delivered against the initial supply contract, it appears that excess capital funds from the project were used for sustainment procurement rather than being written back to the Army Minors Program.

### **Artillery Orientation System Project**

**4.33** The Artillery Orientation System Project is a current project with considerable elapsed time for delivery of the capability. The capability submission was first endorsed in November 1997, although project approval did not occur until October 2001. As a result of this delay, it became necessary to obtain approval to update the capability submission to reflect a change the scope of the project to accommodate changes in technology. As at 1 July 2005, only \$2 million of the \$10.5 million approved for expenditure had been spent, and the progress of the project will need to be monitored to ensure that further schedule delay is contained.

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<sup>59</sup> Department of Defence, Inspector General Division, Management Audit Branch report *Joint Materiel Support Branch Minor Projects – Combat Boots* of 9 July 2004.

**4.34** Defence advised in June 2006 that while there has been some schedule delay over the life of the project, the project is currently on schedule to achieve the agreed In Service Date MAA milestone of November 2006.

### **Blackhawk Night Vision Goggles Head-Up Display project**

**4.35** The procurement of the Blackhawk Night Vision Goggles Head-Up Display provides an example of a minor project effectively managed to deliver the required capability within the approved project cost and to the original schedule. A profile of this project is outlined in Figure 4.2.

#### **Figure 4.2 Blackhawk Night Vision Goggles Head-Up Display Project**

##### *Capability*

The project is to complete the fleet-wide installation of Night Vision Goggles Head-Up Display (NVG HUD) to 24 Blackhawk helicopters and provide logistic support for the capability for three years (In 1999, 12 Blackhawk aircraft were fitted with the NVG HUD capability in response to an urgent operational requirement). The device superimposes aircraft instruments into the pilot's field of view, enabling greater situational awareness for night operations.

##### *Approval*

The capability submission was developed in the same year (2000) that the project obtained approval, and outlined the procurement of 24 NVG HUD and associated spares and support at a cost of \$6.983 million. In August 2002, project expenditure was revised to \$7.968 million (December 2002 prices), due to increases caused by exchange rate variations.

Project documentation indicates a further proposal to increase project funds to \$10.486 million was cancelled due to a change in procurement strategy which enabled the project to be achieved within approved funding. The prime equipment was delivered in 2004, in accordance with the original schedule in the capability submission. Project closure is due for completion in 2005–06.

##### *Procurement*

The original procurement strategy identified in the capability submission involved the procurement of equipment through foreign military sales (FMS) and restricted tender for installation, with project closure planned for March 2004. The actual procurement method was influenced by the high priority for the capability, and modified to a commercial off-the-shelf purchase under a sole source arrangement, involving the supplier of the NVG HUD to 12 Blackhawk aircraft in 1999.

Logistics support for the capability was initially sought through a restricted tender. However, this was abandoned in view of a more cost effective option, leveraging off the purchase of the same equipment via FMS under another minor project (Chinook NVG HUD project). The FMS was amended to procure equipment for both projects.

Source: Analysis of Defence and DMO project documentation

**4.36** A revised acquisition strategy utilising an opportunity to procure the devices via an existing foreign military sale enabled the delivery of the capability to be achieved to the approved cost and schedule. This negated the need for additional funding due to real price and exchange rate variations.

## **Bridge Erection and Propulsion Boats project**

**4.37** ANAO notes that the procurement of the Bridge Erection and Propulsion Boats was effectively managed to a revised schedule, to the in-service requirements of the 2000 Defence White Paper and to cost. A profile of the history of the project is outlined in Figure 4.3.

### **Figure 4.3 Bridge Erection and Propulsion Boats**

#### *Purpose*

The acquisition of 24 bridge erection and propulsion boats (BEPBs) and associated equipment was to provide Army with a floating support bridge capability, a key component of land force mobility. The project would replace a fleet of boats which had been in-service for over 30 years and which had been identified by Army as unreliable and expensive to maintain. The 2000 Defence White Paper outlined the need for improved bridging capabilities to be entered into service in 2005.

#### *Project approval*

The requirement for the capability was initially recognised in a 1996 submission. However, project approval was delayed by the consideration of Army's bridging capabilities in the 2000 Defence White Paper. The approval process for the project aligned with the two pass approach prescribed for Major capital acquisitions, which requires the development of cost and risk estimates as a basis for procurement decisions. First pass approval to undertake studies to provide a greater degree of confidence in the likely costs and risks of full acquisition, and the release of a Request for Tender, was provided by the then Minister for Defence in March 2001, at a cost of \$0.72 million. Second pass approval, for expenditure of \$15.85 million, was progressed through the Minister for Finance and Administration in November 2002.

An Equipment Acquisition Strategy document dated June 2001 noted an in-service delivery date of 2003–04. This was revised to December 2004 in a Product Delivery Agreement endorsed in August 2002.

In June 2005, higher delegate approval provided for a cost increase, in line with the rate of inflation, of \$0.785 million to the project (resulting in approved second pass expenditure of \$16.635 million).

#### *Procurement*

The procurement of 24 BEPBs was based on an open tender for the development of a trial/prototype platform, and at DMO discretion, the manufacture and production of the remaining 23 BEPBs to agreed specification. The winning bid, at an estimated tendered price of \$13.1 million, was assessed as the technically preferred, lowest risk

solution providing value for money and was the only bid that provided the preferred technical combination of engine type and propulsion system.<sup>60</sup>

Defence entered into a contract with the preferred tenderer in April 2003. The contract provided for the provision of a prototype boat and transportation cradle with a limited integrated logistics support package, 23 boats and transportation cradles and equipment, and maintenance training and a maintenance program of three years with the option to extend for the equipment procured.

Following trials of the prototype, a final design incorporating some vehicle modifications was developed through a number of contract change proposals. These amendments brought the contracted price to \$15.6 million (initial contract price was \$13.9 million). A contract change proposal was approved to provide progressive delivery of boats on production, facilitating delivery to schedule. The final boat was introduced into service in August 2005. Formal closure of the project, including user endorsement was completed in September 2005.

Source: Analysis of Defence and DMO project documentation

**4.38** A number of aspects of the management of this project contributed to the effective delivery of the capability. Procurement of the capability progressed in a timely manner following an initial delay in finalising project approval associated with the then imminent issue of the Defence White Paper in 2000. The two pass approval process applied to Major projects was utilised for this Minor project. In conducting regular Project Management Stakeholder Group meetings and ensuring a high level of user input into key documents such as the Product Delivery Agreement, the project demonstrated a high level of user involvement. Continuity of project manager for the procurement phase facilitated effective project and document management. Project closure was well managed, supported by user acceptance, financial reconciliation of unused contingency funds and Assets Under Construction (AUC) roll-out, and also undertaken in proximity to actual project completion. The Review Committee was also appropriately advised of project closure, providing management oversight of project completion.

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<sup>60</sup> Source selection documentation indicates that DMO had a preferred technical solution for the type of engine and propulsion system required. The project manager advised ANAO in February 2006 that this preference had not been determined prior to release of the RFT, but rather following an assessment of submitted tenders. The RFT provided functional specifications and not technical solutions in order to test the market for possible solutions. During the tender evaluation process, tenderers offering that preferred solution scored highly on technical criteria and risk ratings. The preferred maintenance support philosophy was for Army to provide light and medium grade repair, with the contractor to provide heavy grade maintenance. This strategy was consistent with that outlined in the 1996 project submission, which specified that a maintenance contract was to be established for heavy repair. The RFT was not prescriptive in its method of assessment, in order to identify the most cost effective delivery method.

## Combat clothing projects

**4.39** The ongoing supply of combat clothing items is primarily a sustainment issue. A Minor project is raised to introduce new capability in clothing or to enhance existing capability and then sustainment funds are used to procure additional clothing on an as required basis.

**4.40** ANAO identified a number of common issues in the review of the management of several combat clothing projects funded from the Army Minors Program.<sup>61</sup> As project plans were not developed and the project management reporting tool not utilised, these projects did not adhere to the established project management methodology. They appear to have been managed as straight procurement rather than projects.

**4.41** For the Wet Weather Ensemble and Disruptive Pattern Combat Uniform (DPCU) projects, the procurement process leveraged off existing contracts. This involved the exercise of options for further quantities and additional orders against a standing offer. The new capability introduced through the Wet Weather Ensemble project followed an initial procurement to meet operational requirements. The new capability introduced in the DPCU project was effected through a contract amendment to incorporate new near infrared technology in the fabric specification.

**4.42** In each clothing project reviewed, the contractual commitments entered into for the procurement of the clothing exceeded the approved project costs. Sustainment funding was subsequently used to supplement the cost of procuring the combat clothing items. Defence advised ANAO in June 2006 that 'a contractual commitment that exceeds the approved project cost is not unusual in that it allows the items to be sustained or provided to other customers (e.g., other Services) in lieu of the 'old' item'.

**4.43** A reconciliation was not performed at the project closure stage comparing quantities procured against approved capability requirements for the combat clothing projects. In the case of the DPCU project the ANAO was unable to determine whether approved project funds were to be applied to the procurement of a specific quantity of uniforms, or to the increased cost resulting from the new fabric specification over a given period of time.

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<sup>61</sup> Projects reviewed by the ANAO include the Wet Weather Ensemble, Skivvy and Disruptive Pattern Combat Uniform projects. ANAO review of combat clothing projects focussed on project management. ANAO also accessed the report by the Defence Inspector-General Group of the *Audit Investigation into Procurement of Combat Fleece Jacket* of December 2005. That investigation focussed on complaints, treated as allegations, regarding the procurement of fleece combat jackets.

## Project closure

**4.44** Closure for many projects in the Program as at 1 July 2005 was outstanding due to incomplete administrative action. The closure stage of procurement requires documentation of completion of the project in accordance with endorsed capability and user requirements. This stage should be included in the project schedule to ensure it is adequately resourced. Inclusion of projects in the Program that are essentially inactive, but have not concluded the closure phase, distorts the identification of the number of projects to be managed.

**4.45** The approved Army Minors Program as at 1 July 2005 included a number of projects that had been identified for closure at the Management Committee meeting of 26 April 2005.<sup>62</sup> Projects identified for closure represented 56 per cent (54 projects) of the projects included in the approved program. Only 42 projects from the list were identified as ongoing.

**4.46** At the October 2003 Review Committee meeting, it was decided that closing projects were to submit closure reports at their final Review Committee meeting. It was considered that this would allow review of the final project outcome, more effectively close projects, share any lessons learned and recognise the work of those responsible for bringing projects to a successful end. ANAO considers that the tabling of project closure documentation at Management Committee meetings would assist in ensuring that the project closure process is managed effectively. ANAO notes that this initiative did not become standard practice.

**4.47** Procedural guidance specifically for Army minor projects does not adequately detail the process or requirements for removing a project from the program on satisfactory delivery of a capability.<sup>63</sup> QEWS includes the requirement for a Project Closure report to be generated, to ensure that key acceptance milestones have been met, and a Project Closure Certificate to be

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<sup>62</sup> The process of developing MAAs for ongoing projects provided a catalyst for the review of the status of projects on the approved Program.

<sup>63</sup> Defence Instruction (Army) LOG 25-1 Army Minors Capital Program of 18 November 2003 states that it provides definition of the process from concept to project closure. However, the instruction only makes reference to the end state of the acquisition phase being delivery of the capability to Army in accordance with agreed cost and schedule. The instruction does not address the requirements to be met for the removal of a completed project from the Program. There is no reference to any involvement of the Management Committee in the Army Minor project closure process.



produced. However, the system does not appropriately direct users to financial management processes applicable to Minor projects at project completion.<sup>64</sup>

**4.48** Other procedural documentation for project management in the DMO stipulates the administrative closure of a project involves the fulfilment of contract deliverables, financial reconciliation and write-back of any remaining funds, stakeholder satisfaction, transfer to in-service management via a transition document, and equipment acceptance.

**4.49** In practice, the form project closure reporting takes for Army Minor projects differs across projects, from a statement of moneys spent and the number of items procured (combat clothing projects), to a collation of acceptance letters for the delivery of capability requirements, through to a more detailed closure report. Project managers indicated during the audit that the processes are unclear for the closure of Army Minor projects, particularly the content to be included in the closure report and how the report should be processed.

**4.50** Project closure reports do not generally provide a history of the project assessing performance against initial cost, scope and schedule and any approved changes.<sup>65</sup> The closure process is complicated for Minors where there is a poor documentation trail for the project, where there has been turnover of project managers and where the project management methodology has not followed standard procedures.

**4.51** In the case of the older projects in the Program, the adequacy of the project closure documentation is affected by the delay between completion of the delivery elements of the projects and finalisation of the project closure documentation. This delay can result in a loss of corporate memory in relation to the project and poor management of documentation supporting project management.

**4.52** ANAO has sought documentation supporting the management of the scope, cost and schedule of the Tactical Support Equipment for Special Forces project. This Minor project was to procure equipment for an operation related

<sup>64</sup> DMO Finance Instruction 3/2005 states that projects that are financially inactive must commence financial completion action to remove the project from financial management and reporting regimes. In order for a project to be financially complete, the following must be completed: reconciliation to internal finance ledgers, write back of open purchase orders, clearance of the assets under construction balance and transferral of unused approved project funds to the Program or relevant SPO.

<sup>65</sup> The procurement of hand held laser range finders was completed in February 2003 and documentation to finalise closure and removal from the Army Minors Program was not completed until December 2005. The documentation did not satisfy the requirements of DMO procedural documentation.

to the Sydney Olympic Games held in 2000. Documents providing the mandate for the project were not held by the project office responsible for closing the project. The elapsed time since the delivery of the equipment procured under the project has resulted in a gap in corporate knowledge of the project management activity.

**4.53** Management of the project was compartmentalised. The DMO project office responsible for managing the closure of the project had only been responsible for the communications component of the project. There was no central repository of project approval documentation, including variations, and governance arrangements for the project did not require all elements of the project to report to the one Project Board. A project closure report had not been prepared at the time of the audit.

**4.54** The project closure documentation supporting the Land Sniping System Project is considered by ANAO to represent good administrative practice. The documentation covers the history of the project, acknowledges that the capability approved for delivery under the original submission and in the subsequent approved variation to the submission has been successfully delivered, acknowledges user acceptance of the equipment, and identifies lessons learned to facilitate continuous improvement. A checklist of procedural requirements for project closure was also completed by the Project Manager and endorsed by the Chair of the Project Management Stakeholder Group.

## **Recommendation No.2**

**4.55** ANAO recommends that, to facilitate effective project closure, DMO ensure documentation supporting that process include a history of the Army Minor project, accountability against approved cost and schedule, a reconciliation of deliverables against the endorsed capability requirement, and stakeholder sign-off.



## DMO response

4.56 Agreed. Land System Division will develop enhanced procedures for closing Army Minor Capital Equipment Projects, and provide additional training and assistance to relevant managers.

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Ian McPhee  
Auditor-General

Canberra ACT  
7 September 2006



# Appendix



## Appendix 1: Defence and DMO response



Australian Government  
Department of Defence

IG 0272/06

21 Aug 2006

Mr Colin Cronin  
Executive Director  
Performance Audit Services  
Australian National Audit Office  
GPO Box 707  
Canberra ACT 2601

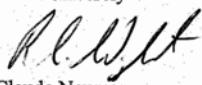


Dear Mr Cronin,

### **ANAO PERFORMANCE AUDIT ON THE MANAGEMENT OF ARMY MINOR CAPITAL EQUIPMENT PROCUREMENT PROJECTS – SECTION 19**

1. On 13 July 2006 the ANAO sought a Defence and DMO response to the draft Section 19 Report on the Management of Army Minor Capital Equipment Procurement Projects.
2. Attached is the Defence and DMO's response to the draft report and recommendations, including a short summary to be used in preparation for the brochure (see Annex A). Also attached at Annex B is a list of additional information and proposed amendments.
3. In summary, Defence and DMO agree with both recommendations contained in the section 19 draft report.
4. My point of contact in this matter is Mr Joel Goodisson (Tel: (02) 6266 4192, or email: joel.goodisson@defence.gov.au).

Yours sincerely

  
Claude Neumann  
Inspector General AOD.

#### Annexes:

- A. Defence and DMO Combined Response to the ANAO Report on the Management of Army Minor Capital Equipment Procurement Projects
- B. Additional Information and Proposed Amendments

**DEFENCE COMBINED RESPONSE TO THE ANAO REPORT ON THE  
MANAGEMENT OF ARMY MINOR CAPITAL EQUIPMENT PROCUREMENT  
PROJECTS**

| <b>No</b>   | <b>Recommendation</b>  | <b>Management Response</b>   |
|---|--|--|
| <b>Recommendation<br/>No. 1</b><br><br><b>Para 3.8</b>  | ANAO recommends that Defence update the Defence Instruction (Army) for the Army Minors Program to reflect acceptable current practice, including requirements arising from the 2003 Defence Procurement Review and prescription of the DMO.  | Agree. Defence will re-draft the Instruction for the Army Minor Capital Program by Dec 2006.   |
| <b>Recommendation<br/>No. 2</b><br><br><b>Para 4.56</b> | ANAO recommends that, to facilitate effective project closure, DMO ensure documentation supporting that process include a history of the Army Minor project, accountability against approved cost and schedule a reconciliation of deliverables against the endorsed capability requirement, and stakeholder sign-off. | Agree. Land System Division will develop enhanced procedures for closing Army Minor Capital Equipment Projects, and provide additional training and assistance to relevant managers. |

### **Defence Comment**

The Army Minor Capital Program is an important contributor to the delivery of new and replacement equipment that will enhance the performance of land forces, both in training and on operations. Many of these Minor Capital acquisitions are developmental and complex in nature, and demand appropriate project management skills. Army is reliant on the DMO and various supporting Defence Groups for successful delivery of the Program, and on the capacity and skill of industry to deliver on time, to budget, and to the requisite outcome.

Army and the DMO have taken significant steps in the last few years to improve governance, business processes, capability delivery, and financial performance of Army Minors. Some of these changes have already resulted in improvement to the management and timely progression of projects.

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