

The case studies

Introduction

- 4.1 The Kinnaird Review highlighted a number of concerns with the Defence acquisition process, in particular the frequency of cost overruns and schedule slippage. The ANAO's submission summarises the factors underpinning these problems as follows:

Recent performance audits into acquisition projects have identified significant weaknesses in project planning, including risk identification and management, as well as project costing issues. Some projects have suffered cost overruns or had scope limitations imposed for budget management reasons, and have experienced delays in implementation. Poor contract management practices have also resulted in inadequate identification and management of contractor delivery problems. Audits also identified a need to strengthen overall project monitoring and record keeping.¹

- 4.2 The Fast Frigate Guided (FFG) Upgrade Project and the ARH Project Air 87 (also referred to as the Tigers) illustrate these kinds of difficulties. It is for this reason the Committee decided to use these projects as case studies for the inquiry.
- 4.3 It does not fall within the scope of this report to outline in full detail the problems associated with each of these projects. This information

1 Australian National Audit Office, sub 3, p 4.

is provided in published reports by the Auditor-General.² What follows instead is a brief description of the projects and a summary of the issues associated with them according to ANAO analyses.

Fast Frigate Guided (FFG) Upgrade, Project Sea 1390

Project background

- 4.4 The Defence Materiel Organisation describes the role of the FFGs as follows:

The role of the Surface Combatant Force Guided Missile Frigates (FFGs) is the patrol and surveillance of open ocean and coastal waters, escort and protection of ships and convoys; protection of coast shore facilities; and engagement of enemy aircraft missiles, surface ships and submarines.³

- 4.5 The Australian Navy is in possession of six Oliver Hazard Perry class FFGs, four of which were constructed in the United States (i.e., HMAS Adelaide, HMAS Canberra, HMAS Sydney, HMAS Darwin) and two that were constructed in Australia (i.e., HMAS Melbourne, and HMAS Newcastle).⁴ The aim of the FFG Upgrade Project was:

...to regain the original relative capability of six FFGs, and to ensure they remained effective and supportable through to the end of their life in 2013-21.⁵

- 4.6 The FFG Upgrade Project, the second phase of Project Sea 1390, commenced in June 1999 at a cost \$1.266 billion (February 1998 prices). The prime contractor for the FFG Upgrade is Thales Australia (formerly known as ADI Limited).
- 4.7 The original project was to deliver six upgraded FFGs, however, in a review of Defence Capability in November 2003, Senator the Hon Robert Hill, the then

2 See Australian National Audit Office, Audit Report No. 45 2004-05, *Management of Selected Defence System Program Offices*; Audit Report No. 36, *Management of the Tiger Armed Reconnaissance Helicopter Project – Air 87*; Audit Report No. 11 2007-08, *Management of the FFG Capability Upgrade*.

3 Defence Materiel Organisation website, viewed 20 March 2008, <<http://www.defence.gov.au/dmo/msd/sea1390/sea1390.cfm>>

4 Australian National Audit Office, Audit Report No. 45 2004-2005, *Management of Selected Defence System Program Offices*, p 62.

5 Australian National Audit Office, Audit Report No. 45 2004-2005, *Management of Selected Defence System Program Offices*, p 67.

Minister for Defence, announced that in order to provide offsets for the introduction of SM2 missiles to four of the FFGs and the acquisition of three air warfare destroyers, the oldest two of the FFGs (i.e., HMAS Adelaide, and HMAS Canberra) would be laid off.⁶

Issues identified by the ANAO

4.8 In May 2005, the ANAO tabled an audit report on a number of Defence System Program Offices, one of which is responsible for the FFG Upgrade Project (ANAO Audit Report No. 45 2004-2005, *Management of Selected Defence System Program Offices*). A further audit report entitled *Management of the FFG Capability Upgrade* was tabled on 31 October 2007.

4.9 The 2005 audit examined contract management by the DMO and included information on schedule delivery, financial management and performance outcomes. On the basis of this audit, the ANAO concluded:

The FFG Upgrade Project is not proceeding satisfactorily and requires continued Defence Senior Executive attention, in order to prevent further loss of Navy capability. The FFG Upgrade Project has experienced extensive schedule slippage, and as of November 2004, 78 per cent of the contracted payments had been made without a satisfactory design and development disclosure process in place, nor agreement with important elements of the project's Tests and Trials program. ANAO considers that further slippage is likely on the lead ship, HMAS Sydney, which will have flow on effects for overall Navy capability.⁷

4.10 With regard to financial management, the ANAO found:

...that in the period 1999 to mid-2003, the FFGSPO financial records did not provide a reasonable level of assurance for the orderly, efficient and accountable measurement of the use of Australian Government resources. The ANAO is concerned that legislative and administrative requirements concerning the keeping of accounts and records may not have

6 Senator the Hon Robert Hill, *Defence Capability Review*, media release, 7 November 2003.

7 Australian National Audit Office, Audit Report No. 45 2004-2005, *Management of Selected Defence System Program Offices*, p 21.

been met for a significant period, prior to mid-2003, in relation to this project...⁸

4.11 As outlined above, the ANAO tabled a follow up audit of the FFG Upgrade Project on 31 October 2007. This audit reviewed the performance of the FFGSPO's management of the FFG Capability Upgrade Project.

4.12 The ANAO reported the following conclusions:-

- The FFG Upgrade Project has experienced extensive delays in meeting the contracted capability upgrade requirements specified in the late 1990s. The number of FFGs to be upgraded has been reduced from six to four, and the scheduled acceptance of the fourth and final ship has been delayed by four and a half years to June 2009. Since the last ANAO audit in 2005, the project delays are attributable to a range of Underwater Warfare System and Electronic Support System performance deficiencies. Considerable risk remains to the delivery of contractually compliant capability to Navy, given the maturity of these systems.⁹
- The FFG Upgrade Prime Contract is less robust than more recent Defence contracts in terms of providing DMO with adequate opportunity to exercise suitable management authority over the project's acceptance test and evaluation programme. Nevertheless, FFGSPO has monitored the Prime Contractor's performance and provided extensive feedback aimed at achieving improved visibility into the project's engineering development, testing procedures and test results. But the overall result has been long-running design review, test programme and requirements completion verification difficulties.¹⁰
- The DMO exercised discretion in Provisionally Accepting HMAS *Sydney* in December 2006 in accordance with the contract as amended by the May 2006 Deed of Settlement

8 Australian National Audit Office, Audit Report No. 45 2004-2005, *Management of Selected Defence System Program Offices*, p 21.

9 The Prime Contractor advised the ANAO in October 2007 that considerable work has been undertaken throughout July - October 2007 to demonstrate a contractually compliant Electronic Support System, and that independent tests are to be conducted in Hawaii during the Lead Ship deployment to provide comprehensive data noting the complexity of the Electronic Support System test environment.

10 The Prime Contractor advised the ANAO in October 2007 that the complexity of the test programme is acknowledged and it was necessary to introduce a contractual change (B-TAP) to address the inadequacies of the original contract. As a consequence the DMO now has an appropriate vehicle to address previously perceived difficulties within the Verification and Validation process.

and Release.¹¹ Consequently, at the time of its Provisional Acceptance in December 2006 HMAS Sydney had not achieved important Provisional Acceptance milestone precursors,¹² which are now required to be resolved before the ship's Acceptance in November 2008. As at September 2007, HMAS Sydney was experiencing continuing delays in obtaining Initial Operational Release by Navy. This is attributed to limitations in the maturity of Underwater Warfare and Electronic Support Systems and supporting documentation required to satisfy Navy's technical regulations.¹³

- The DMO is not well placed to exert influence over the Prime Contractor performance at this time due to the nature of the original contract, and the extent of funds already advanced. The project's liquidated damages provisions for delayed delivery are capped at less than one per cent of the contract price, and so are unlikely to provide an effective deterrent measure. The May 2006 Deed released both parties from all legal claims including liquidated damages prior to that date. DMO's election not to exercise its preserved right to seek remedies for the Prime Contractor's inability to achieve Provisional Acceptance of HMAS *Sydney* by 27 August 2005, has resulted in no liquidated damages being claimed by DMO as at September 2007.
- The FFG Upgrade Project's Earned Value Management System (EVMS), which controlled some 70 per cent of payments, has been subjected to 10 revisions of the

11 Achieving Provisional Acceptance does not relieve the Prime Contractor of any obligations in regard to rectifying contractual non-conformance prior to the Acceptance of each Upgraded FFG and the Contract Final Acceptance in December 2009.

12 The precursors include satisfactory completion of Combat System Stress Test, training courses for ship's company completed, and Category 5 testing [Sea Acceptance Trials] successfully completed. Also, HMAS Sydney's combat system Baseline Build 1 was experiencing 16 high, 102 medium and 218 low severity System Integration Problem Reports. The Contract's Provisional Acceptance criteria, detailed in Attachment AG is zero High Severity, 25 Medium and 685 Low Severity Problem Reports. See Tables 4.2 and 4.3 for Problem Report criteria and severity definitions. The number of Medium and Low Severity Problem Reports stated in paragraph 101 of Attachment AG are the maximum unless otherwise agreed with the Project Authority. This was the clause exercised in the Provisional Acceptance process. As such, the Contractor complied with the Contract as stipulated at Attachment AG and agreed by the Project Authority.

13 The Prime Contractor advised the ANAO in October 2007 that the discretion exercised by the FFGSPO in accepting Provisional Acceptance of the Lead and First Follow On FFGs was within the specifications of the contract. The Prime Contractor further advised that it would welcome the opportunity to present the objective quality evidence that supports a higher level of maturity of the systems delivered, including the Underwater Warfare System and Electronic Support System, than has been credited in the report.

project's Contract Master Schedule by the Prime Contractor.¹⁴ The May 2006 Deed required a new Integrated Baseline Review to be undertaken by DMO to validate the most recent Contract Master Schedule change. DMO expects the Integrated Baseline Review to be completed in October 2007. The magnitude of the schedule slippage has led to DMO experiencing difficulty in determining if earned value payments were accurately tracking work performed on the project. By October 2006, the Prime Contractor had received earned value payments that exceeded actual value earned by \$24 million. DMO progressively recovered these overpayments.

- There are relatively small milestone payments remaining for the major capability deliveries ahead in the project. The milestone payments for the Acceptance of all four FFGs and the Acceptance of FFG Upgrade Software total \$11 million (February 1998 prices). This is 1.1 per cent of the Prime Contract price. The milestone payment due at Contract Final Acceptance in December 2009 is \$3.36 million (February 1998 prices), which is 0.34 per cent of the Prime Contract price.
- This audit highlights some of the challenges Defence faces in acquiring advanced capabilities for the Australian Defence Force (ADF). DMO relies on industry to deliver Defence's major capital equipment acquisition programme outcomes. If industry and DMO fail to deliver the specified capability to schedule, then invariably the ADF experiences delays in achieving the anticipated capability. In the FFG Upgrade Project's case, there is a four and a half year delay in the delivery of the final upgraded ship and an over five year delay in the delivery of the upgraded Combat Team Training facility. Project delays also result in DMO, the ADF and DMO's Technical Support Agencies carrying additional costs associated with maintaining and supporting DMO's project teams for longer, and at greater skill levels, than originally anticipated.¹⁵

14 The Prime Contractor's Contract Master Schedule is an important component of the Earned Value Management System. It establishes the FFG Upgrade Project's key dates and hence is required to be completely compatible with and traceable to the Contract's Milestone Schedule, and be meaningful in terms of the Contract's technical requirements and key activities.

15 The Prime Contractor advised the ANAO in October 2007 that the reference to the DMO requiring "greater skill levels than originally anticipated" is a reflection of the fact that the complexity of the contract was not well understood at the outset. This was exacerbated by the necessity to expend additional effort to comply with operational, technical and training regulatory frameworks introduced after contract signature.

- Another challenge highlighted by this audit is the need for DMO to establish contractual frameworks that encourage and require contractor performance through appropriate contractual performance management and progress payment regimes. In the case of the FFG Upgrade Project, the contract did not provide DMO with sufficient contractual leverage over the contractor, in terms of approval rights over the project's test and evaluation programme, nor did its liquidated damage provisions effectively discourage variations to contracted delivery schedules. The FFG Upgrade Project demonstrates that once major Defence capital equipment contracts are entered into, the prospects for DMO overcoming inadequate provisions are fairly limited. Since the FFG Upgrade Prime Contract was signed in June 1999, DMO has taken steps to achieve better contract provisions for test and evaluation and requirements verification.¹⁶¹⁷

Tiger Armed Reconnaissance Helicopter (ARH) Project – Air 87

Project background

- 4.13 ARH Project Air 87 ('the Tigers') involves the acquisition of armed reconnaissance helicopters and associated support infrastructure to replace the capability currently represented by the Bell 206B-1 (Kiowa) and UH1-H (Iroquois) gunship helicopters.
- 4.14 The acquisition includes the delivery of twenty-two helicopters with supporting stores, facilities, ammunition and training equipment. The aircraft are manufactured in France by EADS (a company which also builds civilian aircraft such as the A380 Airbus), however, eighteen of the aircraft are to be assembled in Brisbane.¹⁸ The ANAO

16 Verification is defined as the process of determining whether or not the products of a given development phase fulfil the requirements established during the previous phase. Verification confirms that the products properly reflect the requirements specified for them.

17 Australian National Audit Office Audit Report No. 11 2007-08, *Management of the FFG Capability Upgrade*, pp 18-21.

18 Australian National Audit Office, Audit Report No. 36, *Management of the Tiger Armed Reconnaissance Helicopter Project – Air 87*, p 11.

reports that initial flying instruction for Australian Army Flight Instructors is undertaken by the contractor in France.¹⁹

- 4.15 In 2005-06, this project, with an approved budget of \$1.96 billion, was budgeted to have the largest capital expenditure (totalling \$440 million) of all the DMO's projects.²⁰ The acquisition of the Tigers was considered to be an 'off-the-shelf' procurement, representing a low risk to Defence.²¹

Issues identified by the ANAO

- 4.16 On 2 May 2006, the ANAO tabled Audit Report No. 36, 2005-2006, *Management of the Tiger Armed Reconnaissance Helicopter Project – Air 87*.
- 4.17 The purpose of the audit was to assess the effectiveness of DMO's and Defence's management of this procurement. The audit is described as follows:

The audit reviewed the initial capability requirements and approval process; analysed the contract negotiation process; and examined management of the Acquisition and Through-Life-Support contracts.²²

- 4.18 A summary of the overall conclusions of the ANAO is as follows:
- the ARH aircraft was to have been an 'off-the-shelf' delivery of proven, operational technology. It instead became a more developmental program for the ADF, resulting in greater schedule, cost and capability risks;
 - original cost estimates for through-life support were immature, as there was a lack of operational experience in maintaining the capability in other Defence forces. This exposed Defence to significant future budgetary risks;

19 Australian National Audit Office, Audit Report No. 36, *Management of the Tiger Armed Reconnaissance Helicopter Project – Air 87*, p 90.

20 Australian National Audit Office, Audit Report No. 36, *Management of the Tiger Armed Reconnaissance Helicopter Project – Air 87*, p 13.

21 The ANAO reports Defence definition of off-the-shelf as "...a product that will be available for purchase, and will have been delivered to another Military or Government body or Commercial enterprise in a similar form to that being purchased at the time of the approval being sought (first or second pass)". See Australian National Audit Office, Audit Report No. 36, *Management of the Tiger Armed Reconnaissance Helicopter Project – Air 87*, p 11.

22 Australian National Audit Office, Audit Report No. 36, *Management of the Tiger Armed Reconnaissance Helicopter Project – Air 87*, p 36.

- at October 2005, DMO had expended \$855.45 million on the project, representing payment for four of 22 aircraft, design work, and a proportion of external stores, facilities, training deliverables and the required support equipment. Of this expenditure, \$731 million had been expended on the Acquisition Contract, representing around 60 per cent of the total value of this contract;
- twelve months after accepting the first two production aircraft (ARH1 and ARH2) in December 2004, the ADF did not have an effective Tiger ARH capability and had limited ability to train aircrews;
- at the time of acceptance of ARH5 in June 2005, the aircraft was not fit for purpose against all the contracted requirements (as was the case with the first two aircraft). The DMO accepted the aircraft in a state that did not meet contractual requirements but did not withhold part payment;
- the DMO advised the ANAO that it had accepted that the aircraft would not meet the fully contracted specification and had agreed to a lesser capability at the In-Service and acceptance dates of the first three aircraft. The ANAO found that the resulting remediation plan was not formalised through agreed Contract Change Proposals; and
- in addition to contractual shortfalls, the first three aircraft were accepted by the DMO with significant capability limitations, including deficient elements of the weapons, engine and software systems. Deeper level maintenance and retrofit activity to ameliorate deficiencies with the first aircraft commenced in February 2006 and were to be completed by November 2006.²³

Key concerns

4.19 The Committee heard a great deal during the inquiry that demonstrated a number of problem areas in Defence procurement processes. These included: a lack of rigour in project/contract management practices; poor inventory management; a reticence in enforcing contract provisions; problems around the use of the term

²³ Extracted from Australian National Audit Office, Audit Report No. 36, *Management of the Tiger Armed Reconnaissance Helicopter Project – Air 87*, pp 16-18.

military-off-the-shelf; risk allocation; the recruitment, training and retention of personnel; and documenting lessons learnt.

- 4.20 The Committee recognises that these issues, having been raised on a number of occasions in a variety of fora, come as a surprise to no-one. However, their persistence demands they be re-stated with a view to identifying where progress has been made since the Kinnaird Review and where challenges remain.

Lack of rigour in project/contract management

- 4.21 The Committee was made aware of a number of examples of poor contract management across both the FFG Upgrade Project and ARH Project Air 87. For example, an issue of particular concern to the Committee related to payments being made under the Earned Value Management System²⁴ prior to that system being approved. Specifically, in a briefing to the Committee, the ANAO reported:

The project's Earned Value Management System's Performance Measurement Baseline was approved in mid 2000, with the payment of two milestones. However, during the period December 1999 to June 2000, the ADI was paid \$88.9 million in earned value payments.

The Earned Value Management System did not receive specification compliance certification until November 2001, by which time more than \$200 million had been paid in earned value payments.²⁵

- 4.22 Mr Colin Cronin of the ANAO referred to consequences associated with payments such as these in the hearing on 13 June 2007:

...In the FFG process, within six months of the signing of the contract [Defence] started to pay out massive amounts of earned value payments before they actually had an approved earned value system. If you have not got an approved earned

24 Under the Earned Value Management System (EVMS), performance or progress is measured against the schedule terms on a monthly basis. Each month an earned value claim is made, the Department of Defence assesses the validity of the claim and once validated, the claim is paid. Milestone payments are where contractors are paid an initial mobilisation payment and thereafter payments are made on completion of agreed milestones. See discussion on EVMS, transcript, 12 October 2007, pp 3-4.

25 Australian National Audit Office, briefing, 12 October 2006.

value system how do you know that the earned value that has been reported to you is valid?²⁶

- 4.23 A lack of concern with the requirement for formal process was further evident in lax practices around the documentation of contract changes. For example, in relation the ARH Project Air 87:

The ANAO observed that the negotiation for a fundamental change to the Acquisition Contract to cater for the resulting remediation plan that impacted on available operational capability, was not formalised through agreed Contract Change Proposals.²⁷

- 4.24 At a Budget Estimates hearing in May 2007, Mr Cronin highlighted ongoing difficulties with Defence maintaining current versions of contracts:

A problem that has occurred in a number of audits is related to the notion of contract management. In the process of contract management you need to maintain a current contract. The maintaining of a current contract is central to the management of that contract...making sure that you have a current contract, making sure that you are paying in accordance with the contract and making sure that you are getting deliveries in accordance with the contract...²⁸

- 4.25 Mr John Meert of the ANAO reaffirmed the importance of following formal process when he said:

You cannot just rely on the individual because they do come and go, so you basically have to rely on the systems. Where is your project management data? Where are the analyses on the capability and the payments? That should be there on record. It is like the Tiger; all the acceptances should be done in a formal process. It is not a haphazard process.²⁹

- 4.26 In addition to poor project/contract management practices such as those outlined above, the Committee was concerned with an apparent lack of rigour in the management of the tender process associated with the acquisition of the Tigers. This was illustrated by what

26 Mr Colin Cronin, transcript, 13 June 2007, p 7.

27 Australian National Audit Office, Audit Report No. 36, *Management of the Tiger Armed Reconnaissance Helicopter Project – Air 87*, p 17.

28 Mr Colin Cronin, Standing Committee on Foreign Affairs, Defence and Trade, Estimates, transcript, 22 May 2007, p 165.

29 Mr John Meert, transcript, 13 June 2007, p 9.

appears to have been the acceptance of an immature estimate in relation to through-life-support (TLS) costs on the Tigers, leaving the Government exposed to significant financial risk.

- 4.27 The ANAO reported that in December 2001, Defence signed an Acquisition Contract of \$1.1 billion and a TLS Contract with Eurocopter International Pacific (now known as Australian Aerospace Limited) with a fixed price element of \$410.9 million.³⁰
- 4.28 The ANAO also reported that Eurocopter International Pacific won the contract largely on the basis of their affordability in terms of acquisition and TLS costs. Eurocopter's largest comparative cost advantage related to their TLS element which was approximately one-third less than the nearest competitive bid. However, subsequent to winning the bid, the contractor reviewed the TLS costs and made a request to increase the TLS payments by an additional \$365 million (or \$625 million applied over 15 years).³¹
- 4.29 The Committee was keen to understand what had occurred in relation to the review of the TLS contract and questioned both the contractors and Defence extensively on issues related to this matter.
- 4.30 The large variation between the original TLS contract price and the subsequent estimate of the TLS costs raised Committee concerns first, about the extent to which care had been taken to determine an accurate contract figure and subsequently about the integrity of the original tender process as a whole.
- 4.31 With regard to the immaturity of the estimate of the TLS costs, the Committee was provided with the following explanation by a representative of the contractor, Aerospace Australia, Mr Joseph Saporito:

At the time of initial discussions with DMO and signing the contract we were aware the aircraft was not totally in serial production – it was being produced but not completely delivered – so some of the cost had to be based on estimates. We are now better equipped on both sides to understand how to maintain the platform. We have a better understanding of what is requested of industry and so we are working with

30 Australian National Audit Office, Audit Report No. 36 2005-2006 *Management of the Tiger Armed Reconnaissance Helicopter Project – Air 87*, p 32.

31 Australian National Audit Office, Audit Report No. 36 2005-2006 *Management of the Tiger Armed Reconnaissance Helicopter Project – Air 87*, pp 43-44.

DMO to find a better vision of and a better approach to the TLS cost of the platform.³²

- 4.32 However, it is clear from the evidence that problems with the TLS contract did not arise solely as a result of poor estimates. As Mr Brendan Roberts of Australian Aerospace states:

In the case of the through-life support requested increase, about 30 to 40 per cent of that is associated with scope creep, we have heard – in other words, doing extra work; therefore more money. The remainder is our own fault, because we made poor estimates back then, five years ago.³³

- 4.33 This was reaffirmed by Dr Gumley:

I gave evidence last time that, when we specified the extent of work in the through-life contract, we did not get it all right. In fact, we actually expanded the scope of work. So part of what the company is asking for is what we have asked for – we have actually asked them to do more work.³⁴

- 4.34 The Committee is somewhat satisfied that the Kinnaird reforms have, and will continue to have, a positive impact on lessening the extent to which scope creep can now occur (see Chapter 3 for a discussion around this issue). However, problems with the ARH Project Air 87 tender process, specifically the TLS portion of that process, appear to have cast a shadow on the perceived integrity of tender processes across Defence as a whole. For example, Mr Joe Moharich, openly declaring himself to be a 'disgruntled losing bidder'³⁵, said:

In announcing that Eurocopter was the successful tenderer for Air 87, the then Minister for Defence, Mr Peter Reith, said that a major factor in Eurocopter's favour was their Australian Industry Involvement (AII) undertaking to set up a commercial helicopter production line for the EC 120, in Brisbane; between 30 and 50 helicopters per year were to be manufactured.

That undertaking appears not to have been incorporated in the Air 87 acquisition contract, notwithstanding it was a major requirement in the RFT.³⁶

32 Mr Joseph Saporito, transcript, 19 October 2007, p 6.

33 Mr Brendan Roberts, transcript, 19 October 2007, p 26.

34 Dr Stephen Gumley, transcript, 1 March 2007, p 15.

35 Mr Joe Moharich, sub 6, p 1.

36 Mr Joe Moharich, sub 6, p 2.

- 4.35 Mr Moharich appears to attribute this type of experience to a general cultural deficiency across Defence in terms of their acquisition processes:

The total lack of transparency in the acquisition processes [is] the key issue. It is a widely held belief that when the DMO negotiates with a "Preferred Tenderer" the final, "negotiated" contract bears very little resemblance to what was specified in the "Request for Tender". The DMO steadfastly refuses to divulge the contents of a contract, citing "Commercial Confidentiality". Debriefs to losing bidders are invariably meaningless, with the DMO stating only that the contract was awarded on the basis of DMO's assessment that the chosen contractor offered the "Best Value for Money". Specifics are not given. Contracts such as the Project Air 87 ARH acquisition (previously described by the DMO's Chief Executive as a model of good contracting, was until recently claimed by DMO to be "on cost/on time") will not deliver equipment at anything approaching the (mandatory) delivery date specified in the RFT, and the value of the contract far exceeds what was announced by the then Minister for Defence.³⁷

- 4.36 According to Mr Moharich, this lack of transparency in the tender process has resulted at least in the following impact:

The situation is now such that a very large potential supplier, a US based aircraft manufacturer, has made it known that it is most unlikely they will again respond to an Australian DMO RFT; the manufacturer has lost all confidence in the integrity of the DMO's acquisition process.³⁸

- 4.37 Whilst recognising there are significant difficulties associated with project management, the Committee is satisfied that poor project/contract management practices are not universal across the DMO. As the Auditor-General states:

You might recall that we did an audit report a few years ago now of various SPOs, and the performance in some was very good and the performance in the others was at the other end of the spectrum.³⁹

37 Mr Joe Moharich, sub 6, p 2.

38 Mr Joe Moharich, sub 6, pp 2-3.

39 Mr Ian McPhee, transcript, 17 August 2006, p 14.

- 4.38 The Committee also heard and accepts that Defence should not bear sole responsibility for less than satisfactory acquisition outcomes. As the Auditor-General states, industry must share some responsibility in this respect:

While our audits always focus on what Defence or DMO are doing...the Audit Office and everyone else need to recognise that DMO partner with industry and not all of the problems are theirs alone.⁴⁰

- 4.39 Indeed, as can be seen from the following quotes, industry have taken steps to improve their own performance culture in this regard:

Problems in the acquisition of defence capital equipment have not been the responsibility of the DMO (or its antecedents) alone. Industry has to shoulder a significant portion of the blame and Raytheon Australia believes that this has been recognised with most companies undertaking their own programs to improve performance through skills, processes, tools and culture change.⁴¹

Since the ANAO report of May 2005, ADI has made considerable efforts to overcome these challenges. ADI has learnt from experience and implemented several key changes to improve its performance...⁴²

- 4.40 Taken together, the Committee is satisfied from the evidence that Defence is taking steps to tighten its contract management practices. For example, the Committee heard that Defence has placed an increased emphasis on ensuring that contracts contain greater numbers of payments being linked to milestones, or contracts containing a mix of milestones and EVMs, rather than largely on EVMs alone. As Dr Gumley states:

...Earned value management is not a bad system but if it is used in isolation quite often the milestones do not get met...We are finding out that the better system is a combination of earned value management and milestones. If they do not meet the milestones the earned value payments stop...A number of our difficult contracts from the 1990s were structured around the older techniques and now we are

40 Mr Ian McPhee, Standing Committee on Finance and Public Administration, Estimates, transcript, 22 May 2007, p 125.

41 Raytheon Australia Pty Limited, sub 5, p 6.

42 Mr Baghaei, transcript, 12 October 2006, p 5.

looking to get a better commercial balance moving forward in the new contracts.⁴³

- 4.41 Additionally, in 2006, Mr Cronin stated that he expected improvements to the early phases of the capability life cycle as a result of the implementation of the Kinnaird recommendations:

As a more commercial focus comes through, as Kinnaird comes more into play and once we move out of the transitional phase, I think there will be an improvement, because they will have that understanding of the deal. Both sides will understand the deal.⁴⁴

Committee comment

- 4.42 It remains unclear to the Committee what improvements have been made in project management practices across the DMO. The Committee will therefore carefully monitor improvements in project management practices through its routine reviews of ANAO performance audits.

Indiscipline – inventory management

- 4.43 The Committee heard a great deal of evidence which appears to suggest that there is a culture of indiscipline around inventory management practices. Reference was often made to issues that have long been recognised with Defence's Standard Defence Supply System (SDSS), Defence's inventory management system.⁴⁵
- 4.44 Dr Mark Thomson, a Defence observer, notes that the importance of an effective and fully functioning logistics management system such as SDSS cannot be overestimated:

The Department of Defence needs to be ready to fight wars, and to do so it needs to know what assets it has on hand and what condition they are in.⁴⁶

- 4.45 The Committee is aware that many of the issues related to inventory management impact significantly on financial management

43 Dr Stephen Gumley, transcript, 11 May 2006, p 16.

44 Mr Colin Cronin, transcript, 17 August 2006, p 9.

45 See Australian National Audit Office, Audit Report No. 5 2004-2005, *Management of the Standard Defence Supply System Upgrade* and Australian National Audit Office, Audit Report No. 10 2006-07, *Management of the Standard Defence Supply System Remediation Programme* for full details regarding SDSS.

46 Dr Mark Thomson, transcript, 8 February 2007, p 2.

(see Chapter 2) and that these issues form the focus of Defence's financial remediation plans. However, the Committee remains concerned about general practices associated with the recording and storing of inventory.

- 4.46 Mr Ian Matthews, a former Defence employee, is a vocal critic of Defence's capacity to maintain accurate stock levels. In his written submission and oral evidence, Mr Matthews makes a number of assertions about questionable practices he claims to have witnessed during his period of employment with Defence. These include, for example, expensing newly purchased items rather than listing these items as assets which has a significant impact on Defence's capacity to report the level of their assets accurately:

Defence does not even know the value of spares and other inventory it holds in its warehouses at any point in time. If they do not know the value they are holding, how can they financially manage this asset? By not knowing the value of items, I am not referring to having incorrect records as to what is on hand. What I am referring to is them simply expensing the item when it is purchased into the warehouse and therefore not recognising it as an asset. Such expensing of items in warehouses, rather than when they are issued to users, solely relates to Defence's wish to minimise the amount of assets they have to record in their accounts and other records. This activity has little logic attached to it. They will record a \$2 sparkplug related to a motor sitting in the warehouse, but a motor sitting in the same warehouse related to that sparkplug will not be recorded if its value is less than \$10,000.⁴⁷

- 4.47 Mr Matthews also described the following incident, illustrating the paucity of Defence's stock records:

I was at Moorebank one day when they were receiving goods. There were trolleys with about six or seven wooden boxes on them and they were just about to put them away. I said, 'How do you check what you have been billed for is in those boxes?' and they said, 'We don't.' I said, 'Why not?' Their logical answer was, 'We wouldn't know whether what is on that description is in that box, even if we could see it.' That is what happens with stocktaking as well. The item number is

47 Mr Ian Matthews, sub 1, p 4.

written on the box and the box is put up on the shelf. It is never opened. When they do a stocktake, all they ever do is check there is a box there.

...

In regards to Coles Myer, people know it is a packet of Cornflakes, it is a dress or whatever. In Defence they do not know that...⁴⁸

- 4.48 The Committee notes that the Department of Defence has responded to many of the claims made in Mr Matthews' submission. For example, with regard to the claim about expensing items of inventory rather than recording them as assets, Defence indicated:

Inventory items received into warehouses are not expensed but recognised as assets.⁴⁹

- 4.49 However, issues relating to the capacity for personnel to identify and therefore appropriately and accurately take stock of items (as alluded to in Mr Matthews' quote above) reaffirmed in the minds of Committee members that more needs to be done to ensure that stock records are accurate. Following a site visit to the Defence National Storage and Distribution Centre, Moorebank as part of a JCPAA Audit hearing on 27 June 2005, the Committee expressed concern at the degree to which personnel employed at that centre are able to identify, in particular, highly technical pieces of equipment.
- 4.50 To explore whether these types of issues existed and how they were dealt with in large commercial organisations, the Committee visited the Qantas Distribution Centre at Mascot in Sydney on 2 April 2007.
- 4.51 The Committee was informed that Qantas' inventory control system has approximately 500,000 line items and of these approximately 250,000 are in stock at any time. While recognising that Defence National Storage and Distribution Centre, Moorebank holds a significantly greater number of items than the Qantas Distribution Centre at Mascot, the Committee was impressed not only by the fact that Qantas is able to identify stock levels and value at any given time, but also by the manner in which items stored in the Centre are accounted for. For example, when parts are received into the Centre, receipt inspection is undertaken at different levels depending upon the nature of the item. The first, elementary level involves items such

48 Mr Ian Matthews, transcript, 8 February 2007, p 40.

49 Department of Defence, sub 4.3, Attachment A.

as basic stores and consumables (e.g., lubricants, rags) and a minimal level of personnel training is required to inspect these items. The second, mid-level inspection involves items such as parts (e.g., aircraft tyres) and processes whereby part numbers are matched with invoices and the condition of the item is checked. These inspections are undertaken by trained product examiners. At the third and highest level, items are inspected by a Receipts Compliance Inspector. Such an inspector is required to hold aircraft trade qualifications. Here individually serially numbered items are checked against paperwork, (e.g., an overhauled jet engine assembled from many individual components all of which must be receipted appropriately).

Committee comment

- 4.52 The Committee believes that in order to maintain stock records accurately it is important that personnel are able to definitively identify and thereby determine the status of stock held within its stores area. The Committee notes that as part of its remediation plans, in particular remediation plan S1 which addresses Stores Record Accuracy, that Defence reported the implementation of new stocktaking practices and procedures in 2005-06. Again, the Committee welcomes the recent comments of the current Secretary of the Department of Defence, Mr Nick Warner, expressing his intention to modernise the warehouse management system.⁵⁰

Reticence to recover damages

- 4.53 One option available to the Government to mitigate risk is to seek remedies through the enforcement of contract provisions such as liquidated damages.
- 4.54 According to Defence's submission no 4.1, when an event occurs that requires liquidated damages, damages in the form agreed between the parties become due. The form these damages take may be cash, compensatory work/supplies, or a combination of both.⁵¹
- 4.55 However, the Committee notes (as per the ANAO's summary analysis set out above) that in the case of the FFG Upgrade, while the contract contains liquidated damages provisions, a May 2006 Deed

50 Mr Nick Warner, *256,800 Paper hand towels: Mending Defence's Broken Backbone*. Speech to the Lowy Institute for International Policy, 10 June 2008.

51 Department of Defence, sub 4.1, response to Question W12.

released both parties from liquidated damages prior to that date and as at September 2007, no liquidated damages had been claimed.

- 4.56 Additionally, as the total amount of liquidated damages is capped at \$2.5 million per FFG, \$0.75 million for the Operator Trainer and Weapon System Support Centre, and \$10 million overall, this does not serve to deter contractors from schedule blow-outs:

The value of liquidated damages represent less than one per cent of the contract price, and so it is unlikely to effectively discourage late deliveries.⁵²

- 4.57 The ANAO claims that the ultimate effect of this is as follows:

The DMO is not well placed to exert influence over the Prime Contractor performance at this time due to the nature of the original contract, and the extent of funds already advanced.⁵³

- 4.58 With regard to ARH Project Air 87, Major General Tony Fraser indicated to the Committee at the hearing on 1 March 2007 that:

...the readiness for training has a liquidated damages bill of \$10.2 million attached to it, which the company acknowledges it will need to pay. We will execute that once we gain delivery of the Tiger flight simulator.⁵⁴

- 4.59 The Committee note that the simulator was accepted in December 2007 and upon enquiries into the execution of the liquidated damages, the Committee was advised the following:

As part of the dispute resolution on all ARH matters, that included the issue of Liquidated Damages, DMO has negotiated the provision of two EC135 helicopters to be based in Darwin for two years so as to provide lead-in skills training to the ADF.⁵⁵

- 4.60 While the Committee accepts liquidated damages can take any form agreed by the parties (e.g., cash, compensatory work or supplies), these examples reflect something broader. Specifically, that there is a culture of reticence across Defence around the enforcement of contracts, particularly in terms of cash compensation. As someone

52 Australian National Audit Office, Audit Report No. 11 2007-08 *Management of the FFG Capability Upgrade*, p 56.

53 Australian National Audit Office, Audit Report No. 11 2007-08 *Management of the FFG Capability Upgrade*, p 19.

54 Major General Tony Fraser, transcript, 1 March 2007, p 3.

55 Department of Defence, sub 4.7.

with an industry background, Mr Moharich expressed that view as follows:

...the DMO has a well-known policy of not enforcing contracts. Contracts seem to be treated as statements of intent rather than as legally binding documents.⁵⁶

- 4.61 Further, according to Mr Moharich, one of the impacts of not enforcing contracts is the encouragement of low bidding (a claim relevant to the TLS contract on ARH Project Air 87 referred to above):

By not enforcing contracts that are entered into, DMO really invites the practice of low bidding. There is a practice – and it is well known – of bidding whatever you think will get you to the negotiating table and then negotiating something a lot more favourable. When the contract is three or four years down the track and you know that it cannot be cancelled – the Commonwealth could not afford the cancellation or the delay – you start ratcheting up and making more demands. My suggestion is that if there is a contract, why does Defence not enforce it? Send a signal to the contractor that says, ‘That was what you promised.’⁵⁷

- 4.62 This latter point of view was shared by Dr Mark Thomson:

Having understood the situation with the Tiger helicopters, perhaps the problem is not so much one of evaluating the tenders but one of locking in a contract with the tenderer at what they bid for initially and holding them to it. It seems to me that that second step could have been a remedy for the circumstance.⁵⁸

- 4.63 The issue of Defence not enforcing contract provisions was raised during the Senate Foreign Affairs, Defence and Trade References Committee inquiry in 2003. At that time, Defence openly outlined its preference for negotiation over litigation.⁵⁹ This preference was reasserted by Dr Gumley during this Committee’s inquiry as follows:

I would prefer not to go to litigation; courts are very uncertain vehicles. You can spend a heck of a lot of money on lawyers and get an outcome you do not always expect. In

56 Mr Joe Moharich, transcript, 28 March 2007, p 3.

57 Mr Joe Moharich, transcript, 28 March 2007, p 3.

58 Dr Mark Thomson, transcript, 8 February 2007, p 9.

59 Senate Foreign Affairs, Defence and Trade References Committee, *Material acquisition and management in Defence* (2003), p 74.

nearly all occasions you get the evidence, you get the data, you present the data and mature and experienced project managers sit down, work out where the evidence lies and reach an arrangement with money transfers one way or the other, depending on what the data says.⁶⁰

- 4.64 The Committee is aware of the difficulties around this issue, particularly in circumstances where Defence is required to maintain relationships in the context of a sole source environment with access to only one contractor who can fulfil Defence requirements. As Dr Gumley states:

A contract is between two parties and you ask yourself the questions: who else could do the work and who else is interested in doing the work? We are getting a lot of pressure from companies to not have any liquidated damages in contracts. Companies, for their natural interest, want softer contracting; the tone of the questioning here is we should have tougher contracting. It becomes almost a social contract between Defence and industry as to what is the appropriate balance. If we come up with totally draconian contract terms, I will have nobody to contract with.⁶¹

- 4.65 Dr Gumley further outlined the difficulties around quantifying damages such as those associated with a loss of capability:

Clearly, you cannot put a value on the ability to fire a missile off a ship at somebody when you do not know if there is going to be an event that requires you to fire a missile...we are a 'just-in-case' organisation; we are not a profit making organisation. So for the courts, if you ever got into a dispute with a contractor about what is the opportunity cost of not being able to fire a missile, I think a lot of people would have a difficulty putting a quantum on that.⁶²

- 4.66 When questioned about whether Defence should include opportunity costs in their contracts, Dr Thomson also drew out the complexities involved in this issue:

There are liability clauses in some contracts and they tend to be relatively modest, in my experience. I do not know whether you would get better outcomes if you put punitive

60 Dr Stephen Gumley, transcript, 7 December 2006, p 16.

61 Dr Stephen Gumley, transcript, 7 December 2006, p 13.

62 Dr Stephen Gumley, transcript, 7 December 2006, p 22.

clauses into contracts, but I do know one thing: the contracts would cost more. If you wanted the provider to indemnify you against the project going pear-shaped...they will just pile the dollars on top of the contract. With the large portfolio of contracts that Defence has, that is probably not the prudent way to proceed.⁶³

4.67 Reflecting an industry perspective, Mr Bradford of BAE Systems Australia also made the following point:

As a company, we do not object to signing a contract that says we will deliver these things and, if we end up spending \$50 million more than we are paid to deliver those things, we will do it because that is what we do. If, on the other hand, you want to put \$150 million of liquidated damages on a \$10 million contract, I am going to say I do not want to do that... I am, in principle, okay with LDs as long as they are executed within a framework that I can control –⁶⁴

Committee comment

4.68 It is clear that issues related to the form of compensation the Government should receive as a result of poor performance on behalf of contractors are fraught with difficulties. And, although recent events such as the termination of payments on ARH Project Air 87 may reflect a positive shift in the culture of non-enforcement described above, the Committee remains concerned about what appears to be a reticence to claim appropriate damages, particularly in circumstances where delays have led potentially to a diminished capability.

4.69 The Committee is hopeful that the effort expended on ensuring that the Kinnaird Review's focus on risk management is maintained, together with a meticulous application of Commonwealth policy to allocate risk to the party best placed to manage it (see section 4.89 below), may lead to a more appropriate balance of responsibilities between industry and the Commonwealth. The Committee expects this would lead to contract provisions being enforced in circumstances where the Commonwealth would otherwise suffer significant financial disadvantage.

63 Dr Mark Thomson, transcript, 8 February 2007, p 12.

64 Mr Harry Bradford, transcript, 8 February 2007, p 32.

- 4.70 The Committee will keep this matter under review as audits of post-Kinnaird projects are tabled in the future.

Military-off-the-shelf

- 4.71 Confusion around the term military-off-the-shelf was a persistent theme during the inquiry in relation to the purchase of the Tigers.
- 4.72 In its Audit Report No. 36 of 2005-06, *Management of the Tiger Armed Reconnaissance Helicopter Project – Air 87*, the ANAO outlines how throughout the development phase for this project Defence advocated the adoption of an ‘off-the-shelf’⁶⁵ acquisition strategy so as to:

...reduce the costs of integration and development, reduce technical and schedule risk, improve interoperability with overseas forces and reduce the overall cost of acquisition.⁶⁶

- 4.73 One important implication of purchasing MOTS aircraft such as these is that Australia would not become the lead customer. The majority of the risk related to the developmental aspects of the project was to have been borne by military organisations elsewhere. As the ANAO states:

It was intended that the Australian Tiger ARH Project would follow the French and German programs, which the DMO advise were, at the time of making the choice to procure Tiger aircraft, 18 months in advance of the Australian program.⁶⁷

- 4.74 Yet, the Committee heard contradictory and sometimes confusing evidence about whether indeed the Tigers were ever intended to be an off-the-shelf purchase and whether they should now be considered as having been a MOTS purchase, in light of the stage of their development relative to the same aircraft in other international military organisations.
- 4.75 In Audit Report No. 36, the ANAO suggests that ARH Project Air 87 was more developmental in nature than originally thought:

The procurement of the Tiger ARH represents the purchase of an aircraft, which was more developmental than anticipated,

65 See Section 4.15 above for Department of Defence definition of off-the-shelf.

66 Australian National Audit Office, Audit Report No. 36, *Management of the Tiger Armed Reconnaissance Helicopter Project – Air 87*, p 38.

67 Australian National Audit Office, Audit Report No. 36, *Management of the Tiger Armed Reconnaissance Helicopter Project – Air 87*, pp 11-12.

where 14 of the 900 core requirements of the selected aircraft type required modification.⁶⁸

- 4.76 Evidence for this view was also provided at a hearing on 17 August 2006 by Mr Colin Cronin from the ANAO, who argued that Australia is indeed the lead customer (and, by implication the Tigers were not an MOTS purchase):

...we are the lead acquirer of the Tiger. Obviously, the ADF had to put a lot more effort into test and evaluation. The French equivalent did a lot of the work, but essentially Australia had transitioned to the lead acquirer of the Tiger when it was initially envisaged as an off-the-shelf purchase.⁶⁹

- 4.77 However, Mr Joseph Saporito, CEO of Australian Aerospace, the contractors involved in the Tigers acquisition still considers the Tigers were as an off-the-shelf purchase. As he states:

...from an industry perspective, the ARH is an off-the-shelf aircraft because it is mainly based on an aircraft that [was] designed for the European program – the Franco-German program. The basic vehicle is exactly the same. We have just taken some equipment from the French aircraft and some equipment from the German aircraft to build an ARH. It is an off-the-shelf aircraft. There have been two major customisations. One was the integration of the hellfire system, which has been fully successful. It is a US missile and it is the first time a US missile has been integrated in a European platform. It was a challenge but we did it. It has been completely successful.⁷⁰

- 4.78 When asked to further clarify whether the customisations outlined in the quote above were intended at the point where the contract was signed, Mr Saporito responded as follows:

Yes. At the commencement of the contract we knew that we had to integrate the hellfire missile and we knew that we had to customise a radio communication system, which is specific to it. It is always the case that we have to customise it. Every nation has a radio communication system.⁷¹

68 Australian National Audit Office, Audit Report No. 36, *Management of the Tiger Armed Reconnaissance Helicopter Project – Air 87*, p 39.

69 Mr Colin Cronin, transcript, 17 August 2006, p 9.

70 Mr Joseph Saporito, transcript, 19 October 2007, p 5.

71 Mr Joseph Saporito, transcript, 19 October 2007, p 5.

- 4.79 At the hearing on 1 March 2007, Brigadier Andrew Dudgeon, Director General, Army Aviation Systems, DMO clearly maintained that Australia is not in fact the lead customer in relation to this aircraft:

France and Germany are well and truly still the lead customers of the Tiger. One of the major risk-mitigating factors early on was that we would leverage off this certification basis of the French product, the HAP Tiger, and we still do that. The French and the Germans are the ones carrying a great deal of the risk in developing the product.⁷²

- 4.80 More recently, at a hearing before the Defence Subcommittee of the Joint Standing Committee on Foreign Affairs, Defence and Trade, Dr Gumley clarified the position as he now saw it:

We have pretty much found ourselves as the lead customer with regard to the Tiger, although we did not start as the lead customer.⁷³

- 4.81 On 19 October 2006, in response to a Committee question about whether Defence was in error identifying this project originally as an off the shelf product, Mr Cronin of the ANAO replied, "yes".⁷⁴

- 4.82 The Committee is concerned about what appear to be ambiguous, or at the very least inconsistent, approaches to 'off-the-shelf' and 'lead customer'. This concern was reinforced with the following evidence from Mr Saporito, Australian Aerospace:

...the definition of off the shelf will be different in the specific Defence document to that which we consider in industry.⁷⁵

- 4.83 This concern is compounded by the Committee's knowledge that the purchase of MOTS items is the current preference of the ADF as outlined by Air Chief Marshal Angus Houston before the Senate Standing Committee on Foreign Affairs, Defence and Trade on 20 February 2008:

I want to go on the record as saying that most of our issues are with legacy projects that came from a different way of doing business in the past and perhaps a way of turning requirements into equipment that did not always work very well, because we were probably overly ambitious and did not

72 Brigadier Andrew Dudgeon, transcript, 1 March 2007, p 4.

73 Dr Stephen Gumley, transcript, 10 July 2008, p 40.

74 Mr Colin Cronin, transcript, 19 October 2006, p 8.

75 Mr Joseph Saporito, transcript, 19 October 2006, p 10.

resort to the military or civilian off-the-shelf approach which we much prefer in the modern era.⁷⁶

- 4.84 Having said that, the Committee is also mindful of the complexities that may be involved in adhering to a definition of MOTS as pointed out in evidence provided by Mr Brendan Roberts, Board Director, Australian Aerospace:

This also points out the tension here between a line in a publication perhaps which people have to follow in their jobs when the government department says, 'You shall buy military off-the-shelf,' and what that means. For example, a few months ago we bought military off-the-shelf in this country; four beautiful C17 aircraft. They were absolutely military off-the-shelf. You go down to the garage and you buy them, and you get exactly what they offer – no changes at all, whether you wanted them or not. That is military off-the-shelf. In the end, the test is whether this is good for the ADF and especially the people operating these aircraft.

Now we have a situation with the Air 87 program where our aircraft was reaching the end of its development program – fully documented, by the way, in France and Germany, with First World oversight. Do we disqualify this aircraft from consideration because it is not, strictly speaking, military off-the-shelf? That is, you cannot go down to the garage tomorrow and buy it, but within two or three years you will have the world's best armed reconnaissance helicopter capability and you will have it for the next 30 or 40 years. Do you turn your back on that and instead pick up something which is already in service, possibly 10 or even 20 years, because you had very little to choose from?⁷⁷

Committee comment

- 4.85 In light of this confusion, and the Department's preference for purchasing military/civilian off-the-shelf as articulated by Air Chief Marshal Angus Houston on 20 February 2008, the Committee is keen for Defence to clarify further the meaning of 'off-the-shelf' and 'lead customer'.

76 Air Chief Marshal Angus Houston, Standing Committee on Foreign Affairs, Defence and Trade, Estimates, transcript, 20 February 2008, p 45.

77 Mr Brendan Roberts, transcript, 19 October 2006, p 25.

- 4.86 To that end, the Committee again welcomes the Defence Procurement and Sustainment Review noting its intention to examine:

The potential advantages and disadvantages of the greater utilisation of Military Off The Shelf (MOTS) and Commercial Off the Shelf (COTS) purchases.⁷⁸

- 4.87 The Committee also notes that one of the major frustrations for Members of Parliament and others performing an oversight role of Defence acquisition, is the variable meanings applied to Defence terminology. This includes the use of terms such as 'legacy projects', and 'cost blow outs' which lead to perceptions of shifting baselines which impact significantly on one's capacity to assess the status and progress of projects. Standardising terms such as these will be of most consequence to the anticipated review of Defence's Major Projects Report. This issue is addressed further in Chapter 5.

Risk allocation

- 4.88 The question of mitigating the extent to which the Government, and ultimately the taxpayer, is exposed to financial risk is a critical and complex issue and one that was frequently raised over the course of the inquiry.

- 4.89 The Committee heard that DMO policy on the allocation of risk is as follows:

In DMO contracts, consistent with Commonwealth policy, risks should be borne by the party best placed to manage them (Commonwealth Procurement Guidelines, paragraph 6.10). This may be the Commonwealth, the Contractor, or both.

The level of risk accepted by DMO will vary from contract to contract, depending on the nature of the particular procurement. Factors such as the amount of developmental work, Information Technology integration, and customisation will affect the risk profile, from the perspective of both the DMO and the contractor. Where more risk is accepted by the DMO, a lower price will normally be negotiated, noting also the level of competition in the relevant market. In some cases, the acceptance of high levels of risk by DMO in order to

78 The Hon Greg Combet MP, *Defence Procurement and Sustainment Review*, media release, 7 May 2008.

deliver capability requirements is unavoidable. DMO considers that a successful project is one that delivers a fit-for-purpose capability, as approved by Government, within the approved budget and schedule.⁷⁹

4.90 Evidence provided to the Committee tended to focus on two key areas of risk: *technical risk* (e.g., is the technology realisable⁸⁰) which is particularly pertinent in the early stages of the capability life cycle such as concept development; and *commercial risk* (e.g., what is the appropriate type of contract, who will manage knowledge gained from project etc.) which is pertinent to the acquisition phase of capability acquisition.

4.91 Across both those areas of risk, the Committee heard the necessity for, and complexities around, risk management involved in the acquisition of equipment. For example, as Dr Gumley states:

If DMO is to provide leading edge capabilities through our war fighters and peacekeepers, we must have a healthy risk appetite. If we did not, the risk would simply transfer to the ADF in operations.⁸¹

4.92 At the hearing on 7 December 2006, Dr Gumley added the following:

It is absolutely true that the defence procurement is probably the riskiest business activity in this country. Anyone who thinks we are going to go about procurement and take no risks is just kidding themselves. What we have to do in defence procurement is recognise that it is impossible to transfer all the risk. It is impossible to evade it. Similarly, we should, through our contracting formulas, not attempt to take on excessive risk. There is an optimum amount of risk and then you manage it intensively. That is why you have a DMO with 7,000 people, with over 1,000 engineers and 500 project managers; our prime job is to manage risk.⁸²

79 Department of Defence, sub 4.1, response to Question W12.

80 Dr Roger Lough, transcript, 23 May 2007, p 9.

81 Dr Stephen Gumley, transcript, 11 May 2006, p 7.

82 Dr Stephen Gumley, transcript, 7 December 2006, pp 18-19.

- 4.93 Mr McPhee, the Auditor-General, also reiterated the inevitability for risk in Defence acquisition:

At the end of the day, as most people in Defence will tell you, some of these risks you can seek to mitigate but you probably cannot eliminate.⁸³

- 4.94 One of the primary intentions of the Kinnaird Review was to address the issue of risk:

[A strong mandatory two-pass system] should be characterised by a higher proportion of project funds being spent on early analysis to provide better and more relevant information to government and to ensure that projects are less likely to develop problems during the acquisition phase. This would include rigorous analysis of technology, and cost and schedule risks, including external scrutiny and verification.⁸⁴

- 4.95 The Committee notes Dr Gumley's evidence before the Defence Subcommittee of the Joint Standing Committee on Foreign Affairs, Defence and Trade about the new steps being taken to mitigate risk through the gate review process:

...We will have a series of gates. It is very similar to the process that the large industry organisations do with their major projects. So it will be at a stage of pre-first pass, pre-second pass, at pre-contract signature, to make sure we understand it exactly, and even after we have gone to government at second pass, we have gone through the National Security Committee of cabinet and we have got government agreement, post that there is a period of negotiations that occur with a contractor. So before we sign up to a contract we have an executive review, and for those larger programs...that will be conducted by me, the CEO and the general manager of programs – all experienced program managers who have managed multibillion-dollar programs in the past. So there is a process.⁸⁵

- 4.96 As outlined in the previous chapter, the Committee welcomes the Defence Procurement and Sustainment Review's intention to improve the Department's handling of technical risk particularly in relation to
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83 Mr Ian McPhee, transcript, 17 August 2006, p 12.

84 Department of Prime Minister and Cabinet (2003), *Defence Procurement Review 2003*, p v.

85 Dr Stephen Gumley, transcript, 10 July 2008, p 11.

developmental acquisition projects. The Committee notes the importance of the initial allocation of risk between Government and industry at the contracting stage of the acquisition process.

4.97 As Dr Gumley points out:

There are some areas of risk which the Commonwealth should always retain, there are other areas of risk which clearly belong to the companies and there is a portion in between which can be debated from project to project.⁸⁶

4.98 However, the Committee also notes the following comment by Dr Gumley:

It would be a more efficient allocation of Commonwealth moneys for the companies to take on more risk in some areas because they can look after them. There is an imbalance, for example, at the moment between the ability of the Commonwealth to levy liquidated damages in a contract versus the company's ability, if we do something wrong, to ask us to pay expensive excusable delay claims. It is a complicated area of contracting.⁸⁷

4.99 The balance between Defence and industry in this allocation was also articulated by Mr Fisher from Raytheon Australia Pty Limited as follows:

There is a balance and it is up to industry to decide whether it is going to take the risk on or not. In the letter from Dr Gumley on 14 March he says that he believes in fixed-price contracts and he believes that industry should profit and that the profit should be commensurate with the risks you take because you could lose the profit. So there is a balance. But we need to be very careful when we look at this and say, 'We really need to modify this and enhance that,' because strategically we want to do this. In the region we need to be that step ahead. If we can buy something off the shelf and do something clever with it to give us the extra edge then we should do that. That is recognised, and the government has also recognised that industries taking on that risk can get a higher profit, whatever that number is – whatever the market will bear.⁸⁸

86 Dr Stephen Gumley, transcript, 9 May 2007, p 3.

87 Dr Stephen Gumley, transcript, 9 May 2007, p 3.

88 Mr Ronald Fisher, transcript, 28 March 2007, p 19.

Committee comment

4.100 The Committee notes the complexities inherent around the allocation of risk in major acquisition projects. Given the critical importance of appropriate, logical and transparent risk allocation to the proper management of major Defence acquisition projects the Committee welcomes the fact that issues around risk allocation are a high priority and currently being addressed by DMO:

We are working with industry to try to make it happen. Just last week I had all the chief executives of the main prime companies discussing with my senior people and me how we are going to do this better. At this stage it is a cooperative process and I am quite happy with the way it is going.⁸⁹

Personnel – recruitment, training and retention

4.101 The importance of appropriately trained staff in the context of the Defence acquisition process was identified in the Senate Foreign Affairs, Defence and Trade References Committee 2003 report *Material acquisition and management in Defence*. More specifically, that Committee recommended:

...that special training and professional development be undertaken jointly by capability and acquisition staff to ensure that all staff have a clear understanding of, an unequivocal commitment to, and the skills and knowledge to fully implement the practices specified in the *Capability Systems Life Cycle Management Manual 2002*.⁹⁰

4.102 That Committee also expressed concern that the people reforms being undertaken by the DMO at that time would prove difficult to implement given the skill shortages in project management, contracting and software development.

4.103 As can be seen from the following quotes, difficulties with appropriately-trained staff was an issue repeatedly referred to by Defence during this inquiry. For example, a dearth of suitably trained people was referred to in Exhibit 1, *Lessons Learned - FFG Upgrade Project* as follows:

89 Dr Stephen Gumley, transcript, 9 May 2007, p 3.

90 Senate Foreign Affairs, Defence and Trade References Committee, *Material acquisition and management in Defence* (2003), p 28.

Lack of expertise often leads to insufficiently scoped projects, problems during negotiation and hiccups during project execution. Suitably qualified personnel need to be engaged from the outset, and continuity of these skills knowledge and experience retained for the life of the project to ensure that every stage of the project is conducted skilfully and problems are minimised.⁹¹

If you go back to when that FFG project was put together in 1997 or 1998, you could probably argue that there were not enough good people on the project. This is one of our big challenges.⁹²

- 4.104 Similarly, with regard to ARH Project Air 87, Defence also referred to staffing issues as the main lesson learnt during this acquisition:

The importance of staffing the project with appropriately qualified personnel; especially in the critical engineering, logistics and training disciplines. This is particularly relevant where the schedule set by Defence is aggressive.⁹³

- 4.105 In response to questioning about whether the DMO has staff who are adequately skilled to negotiate on an equal footing with senior industry representatives, Mr Peter Nicholson from BAE Systems Australia also made reference to variability in skill levels:

...in some areas the maturity is very good and in some areas it is not.⁹⁴

- 4.106 Defence has embarked on an extensive financial management and systems training program, and invested considerable funds and effort in developing the capacity of its staff in this regard (see also Chapter 2).

- 4.107 The Committee also heard that a comprehensive training regime to professionalise the DMO workforce was a prime focus of the senior leadership at Defence. Dr Gumley advised the Committee at the first hearing, on 11 May 2006, that 315 staff members had been certified as project managers to date with a further 207 enrolled and moving

91 Department of Defence, *FFG Upgrade – Lessons Learned*, exhibit 1, p 1.

92 Dr Stephen Gumley, transcript, 9 May 2007, p 20.

93 Department of Defence, sub 4.1, response to Question W1.

94 Mr Peter Nicholson, transcript, 8 February 2007, p 23.

towards certification. Two years prior, DMO had only 10 project managers with those levels of certification.⁹⁵

- 4.108 At a more recent hearing before the Defence Subcommittee of the Joint Standing Committee on Foreign Affairs, Defence and Trade Dr Gumley indicated that DMO had now graduated 400 qualified program managers in courses and in practical work over the last four years.⁹⁶ At that hearing, Dr Gumley again stressed the importance of having experienced professional staff to manage risk properly for the Commonwealth:

The only way we are going to be able to reduce the Commonwealth's risks on these big projects is by having really good people inside the DMO.⁹⁷

- 4.109 The Committee notes that the efforts of the Department in training, upskilling and professionalising its staff has been acknowledged both externally and internally. Such acknowledgements are illustrated in the following quotes by the Auditor-General and Mr Malcolm Kinnaird:

There are plenty of people, including auditors, who can tell you what the framework should be and how to progress management issues; but it is in the execution, and that goes to training and culture...Defence are investing probably more than they ever have before in training and people development issues, which I think is absolutely essential.⁹⁸

It is my observation that the team have embarked on a project management training program that has been very successful in terms of the number of people who have been taken through project management disciplines and understanding and now have a qualification that they did not have before.⁹⁹

- 4.110 However, while improvements in training and upskilling are widespread across Defence, the Committee is concerned with the evidence that suggests that Defence, like other agencies, is still experiencing real difficulties in its ability to attract specialised staff into the organisation. As the following quotes from Defence

95 Dr Stephen Gumley, transcript, 11 May 2006, p 7.

96 Dr Stephen Gumley, transcript, 10 July 2008, p 12.

97 Dr Stephen Gumley, transcript, 10 July 2008, p 13.

98 Mr Ian McPhee, transcript, 17 August 2006, p 22.

99 Mr Malcolm Kinnaird, transcript, 15 August 2007, p 6.

representatives suggest, this shortage relates to the need for both financial and acquisition staff:

This is one of our big challenges. A very substantial re-equipment of the ADF is coming up and we have to find enough people who have the domain knowledge and the commercial experience to be able to run all these projects. It is a challenge.¹⁰⁰

One of the main areas of the up-skilling program is to train our own. We have been out to the market; we have seen what is there. It is a limited pool of qualified people. The industry, obviously, want exactly the same people. There are 7,000 people in DMO, but there are 26,000 people in the industry, and they need the same sorts of people.¹⁰¹

We have some positions that we are still not able to fill, with the trained people and the kind of money we can offer.¹⁰²

...there is also an incredible shortage of skilled accounting folk in the country generally. That is one of the challenges we face to our training program.¹⁰³

4.111 The poaching of trained staff also emerged as a significant challenge for Defence personnel management:

Of course the obverse happens: we skill up our people and they achieve a bit and somebody poaches them, but that is a measure of success, I guess.¹⁰⁴

4.112 The Committee queried the factors underlying these issues and heard conflicting evidence about the impact of remuneration on the recruitment and retention of staff. For example, in the following quote Mr Malcolm Kinnaird laments the salary restrictions the Department of Defence is subject to:

The tragedy is that they are being trained in an organisation that is not able to pay competitive salaries with the top private sector so inevitably there is going to be leakage out as they train, just as there used to be in the large public bureaucracies – and I fancy that that might accelerate. I do not

100 Dr Stephen Gumley, transcript, 9 May 2007, p 20.

101 Dr Stephen Gumley, transcript, 9 May 2007, p 20.

102 Mr Ric Smith, transcript, 11 May 2006, p 15.

103 Mr Phillip Prior, transcript, 11 May 2006, p 15.

104 Mr Ric Smith, transcript, 11 May 2006, p 15.

think that there are many private organisations that are investing so heavily in project management training and development.¹⁰⁵

- 4.113 Yet, Mr Harry Bradford of BAE Systems Australia, suggests below that remuneration is not the issue:

...whenever I have confronted problems with retention, remuneration has rarely been the cause.¹⁰⁶

- 4.114 Dr Mark Thomson suggests that one approach to alleviating the skills shortages currently being experienced by Defence would be to buy in the necessary expertise:

Defence either can train people or can buy them in from outside. Already DMO has an extensive program for professionalisation... That will get them only so far. At some point, for some big projects I think it is prudent to bring people in from outside and pay the money that is necessary – as they have done in a couple of cases. If you are going to run a multibillion dollar project, you should have someone in charge of it who can justify running a multibillion dollar project in the private sector. Defence have gone part of the way down that track. I think they should be pushing further down that track than they already have.¹⁰⁷

- 4.115 The Committee agrees with this view. Until the DMO is staffed with appropriate numbers of personnel holding the requisite expertise and experience as a result of the extensive professionalisation program which is now taking place within the Department, the Committee believes additional resources will be required to attract and retain staff with high-level project management expertise.

- 4.116 In addition to broader issues related to Defence's capacity to attract staff, the Committee notes with some concern the level of 'churn' within the Department. Although Defence indicated to the Committee that the level of turnover for the FFG Upgrade Project was not considered high, and for ARH Project Air 87 it was lower than normal¹⁰⁸, the Committee is concerned by the fact that the same personnel rarely hold responsibility for acquisition projects from start to finish. For example, on the FFG Upgrade Project, seven people

105 Mr Malcolm Kinnaird, transcript, 15 August 2007, p 6.

106 Mr Harry Bradford, transcript, 8 February 2007, p 30.

107 Dr Mark Thomson, transcript, 8 February 2007, p 9.

108 See Department of Defence, sub 4.1, response to Question W3.

occupied the role of Project Director position over a period of 14 years. Likewise, seven people had held responsibility for ARH Project Air 87 from October 2001 to January 2007, in some cases for periods as short as six months.¹⁰⁹

4.117 The Committee accepts that it may be unrealistic to expect the same staff to retain the day-to-day responsibility over the life of the projects, particularly in circumstances where that lifespan is extensive. However, the Committee does expect that while personnel are moving in and out of those roles, much more emphasis should be placed on the retention and consolidation of relevant corporate knowledge.

4.118 This issue is one that was also recognised by Dr Gumley:

There is a problem with evasion of accountability, where people can move at level freely within the Public Service – change departments, change groups – and you lose the corporate knowledge. There is no ability, it seems, to direct people to stay in a position to get something finished. To my mind it is a very difficult problem. So what you have to do is try and set up systems to capture the knowledge that take that into account.¹¹⁰

4.119 The retention and consolidation of knowledge is all the more important in circumstances where, as the Committee heard, industry may be unlikely to share lessons they have learnt from acquisition projects. Mr Harley Tacey, Project Director from ADI Ltd states:

If you look at the complex programs that have been implemented over the last few years you will find that most of them have been implemented by a different company. One was Boeing, one was Rockwell, one was someone else, one was Saab et cetera. So the lessons may reside in those companies but those companies are competitors and are not necessarily going to share with their competitors all that they have learned from their lessons.¹¹¹

109 See Department of Defence, sub 4.1, response to Question W3.

110 Dr Stephen Gumley, transcript, 15 August 2007, p 11.

111 Mr Harley Tacey, transcript, 12 October 2006, p 9.

- 4.120 Mr Meert from the ANAO, while reaffirming that ultimate responsibility for projects lies with the CEO, also highlights the importance of the appropriate maintenance of corporate knowledge related to projects:

I mean in the end the CEO is responsible. If you take over a major project, when you take it over you do have to get on top of that project and where it is at in terms of deliverables. I do not think you can wash your hands of the past forever. You do have to catch up with the project, know where the finances are and where the project deliveries are up to. So just because a project manager leaves does not mean it suddenly throws the whole project management regime out the door; they still expect the planes to come in because, for them, it is business.¹¹²

- 4.121 Drawing upon his experience with the UK Ministry of Defence, Mr Tim Banfield of the UK NAO made the point that documenting project successes and failure is important, not least because the lengthy nature of procurement processes:

Very often, as well, the reasons for failures and problems on projects are lost in the mists of time because the projects take so long that, by the time they are finished, it is difficult to distinguish.¹¹³

Maintaining corporate knowledge – lessons learnt

- 4.122 As a result of this evidence, the Committee was keen to examine the degree to which Defence and the DMO were now focused on learning from past experiences, particularly in relation to the two acquisition case studies, the FFG Upgrade Project and ARH Project Air 87.
- 4.123 Defence indicated to the Committee on a number of occasions that learning the lessons gained from past acquisition projects was a priority for the Department. Dr Gumley indicated early on in the inquiry:

For this to be a valuable process for DMO to lead to improvement in procurement and acquisition, getting those

112 Mr John Meert, transcript, 13 June 2007, p 7.

113 Mr Tim Banfield, transcript, 20 June 2007, p 14.

systematic issues out on the table and learning from them is very important for us as well.¹¹⁴

- 4.124 In a later hearing, Dr Gumley also agreed with the Committee that more could be made of lessons learnt in procurement:

...there is more work to be done in capturing organisational knowledge. I agree. We still are perhaps over-stovepiped and that keeps the knowledge in.¹¹⁵

- 4.125 In response to questions taken on notice at the hearing on 7 December 2006, Defence provided the following information about how they were going about developing such a process:

A more formal approach to Lessons Learnt is being developed. It will involve the collection of information and data about projects at various points in the project life cycle. Information sources will vary such as Project Closure Reports, Project Audits, Project Governance meetings, or internal, independent Project Evaluation Reviews. The Lessons Learnt will be held centrally and made available to all staff. An appropriate means of doing this is yet to be defined. It is also anticipated that the Lessons Learnt could be incorporated into building project estimates.¹¹⁶

- 4.126 This approach was reaffirmed by Mr Kim Gillis, Deputy Chief Executive Officer, DMO, at the hearing on 1 March 2007 as follows:

One of the initiatives we are taking on in the project management world is that rather than just documenting it internally we are moving to publishing a lessons learnt document. For HMAS Sirius, one of our most recent projects, we are actually publishing – and we will be publishing this by the middle of this year – a lessons learnt document. This is going to be available in the National Library. We are going to be producing a number of copies to send to our equivalent organisations around the world. I want to move the organisation from just having internal lessons learnt documents because they do get lost. You write a document, you put it in a file and it gets archived. Sometimes, for example, in the case of an auxiliary oiler, we may only

114 Dr Stephen Gumley, transcript, 7 December 2006, p 2.

115 Dr Stephen Gumley, transcript, 15 August 2007, p 10.

116 Department of Defence, sub 4.1, response to Question W2.

purchase one of those every 20 years. So the best way to ensure that the message is never lost is to publish.¹¹⁷

- 4.127 In response to Committee questioning about whether information such as the appropriate modification of process and practice would be included in the lessons learnt document, Mr Gillis continued:

Again, it is a process whereby once you have done that you then also identify in the lessons learnt what activities you are going to undertake to remedy any of the problems you have. So it is a discipline that we would have to undertake. Once you publish something, you are far more accountable.¹¹⁸

- 4.128 The Department also indicated that case studies were becoming more prevalent in the DMO as a learning tool through leadership development programs and the DMO's Complex Project Management Competency Framework.¹¹⁹

- 4.129 Dr Gumley offered the following in relation to organisational changes he hoped would improve the capacity for information about lessons learnt to be shared more widely across the Department:

In a 'sustain it' world, a lot of it came from the three services which was Support Command and they got all put together into DMO in about 2000-01, and those cultures take a while to work through. Some of the organisational changes that were made recently, though, started to fix that, for example, Kim Gillis coming in as General Manager, Systems. I have used that title deliberately as he is going to handle five, shortly six, domain divisions. Each of those divisions is big in dollar-plus businesses. His job is primarily standardisation in how we do things right across air, sea, land, electronics, helicopters and the new one we are looking at is explosive ordnance and ammunition. So, organisationally, we are moving to exactly what you said.¹²⁰

117 Mr Kim Gillis, transcript, 1 March 2007, pp 21-22.

118 Mr Kim Gillis, transcript, 1 March 2007, p 22.

119 Department of Defence, sub 4.1, response to Question W2.

120 Dr Stephen Gumley, transcript, 15 August 2007, p 10.

- 4.130 The notion of establishing a carefully documented lessons learnt process (including the successful elements of projects) was reaffirmed to the Committee when Mr Tim Banfield, of the UK NAO, relayed the following information about his experience with the Ministry of Defence in that country:

The Ministry of Defence has processes to learn lessons which are of variable quality and are used to a greater or lesser extent. An awful lot of it is what is in people's heads and passing on from time to time.

...One of the things that happens – maybe it is a UK trait; I do not know – is that we tend to dwell on the failures and accept successes as doing a day job. Actually, you can learn an awful lot from the successes. That bit does not happen...¹²¹

Committee comment

- 4.131 The Committee is satisfied that the extensive professionalisation program being undertaken at the DMO will have a positive impact on the efficiency of the acquisition process. However, the Committee is mindful of the external constraints that may hinder such a program and the time these changes may take to filter through.
- 4.132 The Committee is also satisfied that Defence is cognisant of the importance of developing and maintaining a detailed corporate compendium of knowledge and the Committee welcomes that Defence is instituting a more formal approach to documenting lessons learnt from acquisition projects. However, the Committee emphasises the need for every effort to be made to ensure all documented lessons learnt are clear and accessible so that all staff will be encouraged to seek out this information where necessary.

Cultural change

- 4.133 In its examination of the case studies, Defence 'culture' was frequently mentioned as an issue requiring attention from within Defence, industry and the Auditor-General.
- 4.134 Issues related to culture have often been cited in reviews of the Defence organisation. For example, both the *2003 Defence Procurement Review* and the *Senate Foreign Affairs, Defence and Trade References Committee's Report on the inquiry into materiel acquisition and*

121 Mr Tim Banfield, transcript, 20 June 2007, p 14.

management in Defence emphasised the need for cultural change across the Department. Indeed the latter report recommended the Senate request the Auditor-General conduct a cultural audit (i.e., an audit of the existing culture to identify strategies for cultural change) of the DMO.

- 4.135 The Committee accepts that a cultural shift has been documented anecdotally, for example, in the evidence set out below of internal observers such as Mr Malcolm Kinnaird of the Defence Procurement Advisory Board, Mr Phillip Prior, the CFO of Defence as well as external observers such as Mr Ron Fisher from Raytheon Australia Pty Ltd:

There is no doubt that the culture of the management group within DMO is now quite an improvement on what it was when we first started to look into the matter...I am convinced that there is a gradual shift going on from the top down.¹²²

...

...I do see those changes and those shifts. Indeed, only yesterday I was presenting at a senior leadership forum on financial management. That is a forum for our one-, two- and three-star members and it is well attended. We hold those particular forums regularly. I must say that the level of interest and concern from the organisation at that level is still high and continues to be appropriately set. I can see that cultural shift coming through. I think the organisation is responding to these issues, so I think that cultural shift is occurring.¹²³

...

The significance of Dr Gumley's reform agenda goes beyond the initiatives themselves to changing the culture and behaviour within the DMO. Changing the culture within the organisation is as important, if not more so, to improving the overall performance of the defence acquisition function as the initiatives themselves. Culture change takes time, and is a journey rather than a destination, but industry is very pleased that the journey has begun.¹²⁴

122 Mr Malcolm Kinnaird, transcript, 15 August 2007, p 5.

123 Mr Phillip Prior, transcript, 29 March 2007, p 7.

124 Raytheon Australia Pty Ltd, sub 5, p 6.

- 4.136 However, the Committee remains concerned that while culture is, and has been, repeatedly raised in the context of inquiries such as this, it does not appear to have been systematically addressed, nor objectively measured in any great detail by the Department. This lack of empirical evidence makes it difficult for observers, including those responsible for parliamentary oversight of the Department, to determine the degree to which aspects of the Defence culture may, or may not, have changed. For example, while obviously a step in the right direction, it cannot be inferred that extensive training programs will *necessarily* bring about deep cultural change.
- 4.137 The idea of developing a measure to assess the degree to which cultural change has taken place was raised by Mr Mortimer, Chair of the Defence Procurement Advisory Board, at the hearing on 15 August 2007 as follows:
- The answer is that we have not actually tested it as such, but we asked the question of Steve [Gumley] about 18 months ago as to how far we are penetrating in the organisation and what would be the best way to test it. That is one of the reasons why we are still operating as a board. One of the ways to do that may well be a survey of some kind.¹²⁵
- 4.138 The Committee believes that the evidence submitted in relation to the case studies has once again highlighted a number of cultural deficiencies across Defence. However, the Committee accepts that there is a significant amount of variability in performance across Defence which implies that one should be cautious when discussing Defence culture as a homogenous whole.
- 4.139 The Committee is also satisfied that cultural change is high on the list of Defence priorities. A number of Defence's senior leadership team have expressed both a concern with, and an agenda for, encouraging Defence personnel to, for example, understand and appreciate the significance of the work they do. The Committee also notes that the Department of Defence conducts a Defence Attitude Survey which contains questions related to *Personal Performance and Performance Culture*.
- 4.140 Yet, the Committee remains concerned that again, another Parliamentary inquiry is facing the task of determining whether the culture of Defence has, indeed, changed over the time since the Senate Foreign Affairs, Defence and Trade References Committee's 2003

125 Mr David Mortimer, transcript, 15 August 2007, p 5.

report and the 2003 *Defence Procurement Review*. The Committee believes, therefore, a more systematic and explicit focus on the measurement and monitoring of cultural change would be beneficial to both Defence and those responsible for parliamentary oversight of the Department.

Current status of the projects

4.141 The Committee understands that as at July 2008, the status of the case studies is as follows:

FFG Upgrade Project

4.142 In response to a question taken on notice at the hearing on 12 October 2006, Thales Australia provided an 'FFG Upgrade Delivery Schedule Table' on 15 November 2006. This table is set out in Appendix F.

4.143 Defence indicated, in a response to written questions dated 15 February 2007, that they had confidence in the delivery dates provided in this table. More specifically, they state:

A Deed of Settlement and Release was signed on 29 May 2006. ADI undertakings in the settlement of the re-baselined contract point to improved management practices and technical rigour. This has instilled considerably more confidence that the Program will achieve agreed and contracted delivery dates.¹²⁶

4.144 Since that time, Thales have submitted a further update claiming that:

Since the May 2008 re-baseline, Thales has achieved delivery of all major milestones, in particular the return of ships to the Fleet on or before the scheduled date.¹²⁷

4.145 At a Senate Additional Budget Estimates hearing on 20 February 2008 before the Standing Committee on Foreign Affairs, Defence and Trade, Mr Warren King, General Manager, Programs reported that none of the four FFGs being fitted with the upgrade were fully functioning at this stage. He also indicated that of the areas left that need to be addressed - the electronic surveillance measures (ESM)

¹²⁶ Department of Defence, sub 4.1 (response to Question W5).

¹²⁷ Thales Australia, sub 8.1, p 3.

system; the integrated logistics support in certain areas; and the towed array sonar - the ESM system was the most troubling.¹²⁸

- 4.146 On 10 July 2008, before the Defence Subcommittee of the Joint Standing Committee on Foreign Affairs, Defence and Trade Estimates Commodore Andrew McKinnie, Director-General, Major Surface Ships, Maritime Systems Division of the DMO provided the following update:

The lead ship, HMAS *Sydney*, was offered for initial operational release and last year Chief of Navy elected not to take initial operational release due to his requirement for the capability to be improved prior to delivery. The key issues there were with the electronic surveillance system, which is a very high-sensitivity electronic warfare system, a very sensitive receiver, and it is all about detecting the electromagnetic environments and providing early warning and queuing for the above-water warfare combat systems. There were additional issues that he was concerned about in terms of the maturity of the integrated logistics support package and some issues about safety case documentation – in other words, making sure that we were delivering a capability that was safe and fit for service.

We have been working with the prime contractor, ADI Limited, now trading as Thales Australia, for some time and their subcontractor, Rafael, to work in a collaborative fashion to get the Rafael electronic surveillance system over the line. It is a C-Pearl ES system, electronic surveillance. We have had good progress and successes during this year of debugging the system, finding faults in software, finding faults in some of the inputs for that system, and we had a trials program in HMAS *Darwin* in May this year which has given us increased confidence that by about November this year we should be able to demonstrate a compliance system that meets the contracted requirements. It is on that basis that we wish to then reoffer that capability for Navy for consideration. It is important to the Chief of Navy in the context that this is a warning receiver and in his frame of reference it is a key issue in a decision to deploy the ship into combat operations. So we

128 Mr Warren King, Senate Standing Committee on Foreign Affairs, Defence and Trade, Estimates, transcript, 20 February 2008, pp 57-58.

are on an ES system get-well activity to improve that capability.

There are other issues with the Link 11 tactical data link, which is also an important inter-operability and communications issue for deployment. That is being fast-tracked as best we can. We are working with the endgame in mind. We have a real determination to provide the best available capability to keep our Jacks and Jills at sea safe and to give the best delivery of that capability.

In the total capability requirement of this upgrade the real issue was major reliability programs and upgrade of the weapon systems, and many issues there have been well and truly demonstrated. We have major upgrades to the radar and sensor suites and they have been well and truly demonstrated. The anti-air warfare capability of the FFG is much improved with the installation of the evolved Sea Sparrow missiles and a Mark 41 vertical launching system in the forward part of the ship. That is a huge capability multiplier and we know that the ship is far superior in anti-air warfare terms to the pre-mod-up, pre-upgraded FFG. By the way, the Turkish Navy is seeking to leverage off our experience of that package involving the Sea Sparrow missile and vertical launching system, Mark 41, and they want to become a second customer of that development effort.

We have much of the ship capability demonstrated. We are on a get-well program to get over the line on the electronic warfare electronic surveillance systems and tactical datalinks and working with the contractors to deliver the best capability. The critical review point will be in November this year, which is a key contract milestone for delivery and acceptance of the lead ship, its combat systems and the supporting software.¹²⁹

4.147 Dr Gumley cautiously reaffirmed that the situation with the FFG Upgrade Project appeared not to be as serious as it had been:

I am watching it carefully. It has been given a lot of senior professional attention. We have very good goodwill from the

129 Commodore Andrew McKinnie, transcript, 10 July 2008, pp 32-33.

company to try and pull it off, and I am more relaxed about it than I was previously.¹³⁰

4.148 The Committee will continue to monitor the progress of this project.

Tiger Armed Reconnaissance Helicopter (ARH) Project – Air 87

4.149 At a hearing on 1 March 2007, the Committee was informed that the through-life support contract with Australian Aerospace was currently under review. As Major General Tony Fraser, Head, Helicopter Systems Division, DMO states:

We will not accept that we should be paying additional through-life support costs on this aircraft until we review it after a five-year period.¹³¹

4.150 Additionally, media reports on 6 July 2007 indicated that Defence had stopped payment on the Tiger contracts. This was confirmed in evidence forwarded to the Committee on 13 August 2007 as follows:

Payment to Australian Aerospace Pty Ltd under the acquisition contract was suspended on 1 June 2007 due to the company's failure to meet the requirements of Initial Operational Capability. The primary cause of the failure to meet this milestone was the delay in the training of aircrew.¹³²

4.151 At a Senate Additional Budget Estimates hearing on 20 February 2008 before the Standing Committee on Foreign Affairs, Defence and Trade, Major General Tony Fraser advised that ten of the fleet of twenty-two aircraft had now been accepted, twenty-two personnel had been trained and they had flown just over 2,400 hours. An eleventh aircraft was expected to be accepted within the week. Additionally, Major General Fraser advised that Defence were expecting an outcome on the negotiations regarding the through-life support contract by the end of March.¹³³

4.152 With regard to the issue of payment, Major General Fraser advised that payment had not resumed causing "quite an impost"¹³⁴ on the

130 Dr Stephen Gumley, Senate Standing Committee on Foreign Affairs, Defence and Trade, Estimates, transcript, 4 June 2008, p 93.

131 Major General Tony Fraser, transcript, 1 March 2007, p 15.

132 Department of Defence, sub 4.3 (response to question no 1).

133 Major General Tony Fraser, Standing Committee on Foreign Affairs, Defence and Trade, Estimates, transcript, 20 February 2008, p 71.

134 Major General Tony Fraser, Standing Committee on Foreign Affairs, Defence and Trade, Estimates, transcript, 20 February 2008, p 71.

company. In response to questioning about whether the company is continuing to work without payment, Major General Fraser reported as follows:

Significantly, and continuing to deliver the aircraft to us...but it is hurting them and that is why we are in negotiation to try to finalise this quickly.¹³⁵

- 4.153 When asked about the current forecast time delay before all 22 aircraft would be accepted and meet performance standards, Major General Fraser advised the following:

You might recall...that the training that was initially to be done in France before they came to Australia ended up being two years behind schedule. That two years has essentially flowed right through the program, so it is about a two-year delay that we see throughout the program – at least to achieve initial operational capability for the first squadron. There is just a chance that we might be able to recover some of that schedule for the full capability...by some of the initiatives we are taking with lead-in skills training.¹³⁶

- 4.154 On 22 May 2008, the Hon Greg Combet MP, Parliamentary Secretary for Defence Procurement, announced that “significant progress had been made on the remediation of Project AIR 87”.¹³⁷ Mr Combet MP further announced:

Following a period of negotiations between the Commonwealth and the contractor to resolve a dispute initiated in October 2007 over the contract provisions for Through Life Support as well as the Stop Payment, an agreement has been reached that will enable the project to deliver an operational capability to Army in the shortest practical time...Payment has resumed and the project is focussed on delivery of the Armed Reconnaissance Helicopter capability to Army.

The Deed of Agreement contains the basis for a Contract Change Proposal that transitions the current support contract

135 Major General Tony Fraser, Standing Committee on Foreign Affairs, Defence and Trade, Estimates, transcript, 20 February 2008, p 71.

136 Major General Tony Fraser, Standing Committee on Foreign Affairs, Defence and Trade, Estimates, transcript, 20 February 2008, pp 71-72.

137 The Hon Greg Combet MP, *Progress on Project Air 87 – Tiger Armed Reconnaissance Helicopters*, media release, 22 May 2008.

to a performance based structure, to reduce cost of ownership to the Commonwealth over time...¹³⁸

- 4.155 On 10 July 2008, before the Defence Subcommittee of the Joint Standing Committee on Foreign Affairs, Defence and Trade, Major General Tony Fraser provided the following update on the Tigers:

Since negotiating a successful outcome through the dispute, the program has gained significant momentum. The aircraft in Australia has flown 2,700 hours, 24 personnel have trained, and the aircraft have been deployed to Darwin as of a week ago, at the end of June, importantly, into the regiment and into the operational capability to start that work. Importantly for us, the negotiation converted the through-life support contract from essentially what was a cost-plus type contract to a performance based contract, driving an incentive on the contractor therefore to reduce the total cost of ownership to the Commonwealth. It has also focused on delivering an operational capability to Army as quickly as we can possibly do so. I am very pleased with the new Australian Aerospace chief executive officer's work and the focus of the company to provide us that capability.¹³⁹

- 4.156 Again, the Committee will continue to monitor this project.

Conclusions

- 4.157 As outlined earlier, the issues raised in the context of the case studies were not new to the Committee. A lack of rigour and discipline around project/contract management and inventory control and a reticence to recover appropriate damages are matters with which the Committee, and indeed the Australian public are now well acquainted.
- 4.158 Similarly, discussion around the need for clarity in the meaning of significant concepts such as military-off-the-shelf, consideration of the manner by which risk is allocated between relevant parties, personnel

138 The Hon Greg Combet MP, *Progress on Project Air 87 – Tiger Armed Reconnaissance Helicopters*, media release, 22 May 2008.

139 Major General Tony Fraser, transcript, 10 July 2008, pp 4-5.

challenges and documenting lessons learnt were also issues that were reinvigorated during the inquiry.

- 4.159 However, the ongoing focus on these issues, described often and broadly as 'cultural issues' is something that brought into sharp relief the need for a more systematic approach to the measurement and monitoring of Defence culture.
- 4.160 The Committee is satisfied that Defence and in particular the DMO are well aware of the issues raised and the significant bearing they have on perceptions of the organisation as a competent, efficient agency. The Committee is also satisfied that the DMO is now focused on professionalising staff and practices in relation to project/contract management. Over the course of the inquiry the Committee heard a great deal of evidence about the upskilling of the DMO workforce and the importance placed on this by senior management.
- 4.161 Still, there remains an imperative for the Department to pay considerably more attention to documenting and measuring the changes that are taking, and have taken place, since the commencement of the implementation of the Kinnaird reforms.
- 4.162 A more systematic approach to monitoring major projects forms the focus of Chapter 5.