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

Department of Defence

Canberra ACT
12 July 2011

Dear Mr President
Dear Mr Speaker

The Australian National Audit Office has undertaken an independent performance audit in the Department of Defence with the authority contained in the *Auditor-General Act 1997*. Pursuant to *Senate Standing Order 166* relating to the presentation of documents when the senate is not sitting, I present the report of this audit and the accompanying brochure to the Parliament. The report is titled *The Australian Defence Force's Mechanisms for Learning from Operational Activities.*

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

Yours sincerely

Ian McPhee
Auditor-General

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

AUDITING FOR AUSTRALIA

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Abbreviations

ADF	Australian Defence Force
ADFAADS	Australian Defence Force Activity Analysis Database System
ADFWC	Australian Defence Force Warfare Centre
ADO	Australian Defence Organisation
AFP	Australian Federal Police
ALE	Army Learning Environment
ASJETs	Australian Joint Essential Tasks
AWC	Adaptive Warfare Cell
CAL	Centre for Army Lessons
CALMIS	Centre for Army Lessons Management Information System
CAPEVAL	Capability Evaluation (Air Force)
CDF	Chief of the Defence Force
COSC	Chiefs of Service Committee
CJOPS	Chief Joint Operations
DRN	Defence Restricted Network
DSN	Defence Secret Network
DSTO	Defence Science and Technology Organisation
FORCOMD	Forces Command
HQ1DIV	Headquarters 1st Division
HQAC	Headquarters Air Command

HQJOC	Headquarters Joint Operations Command
JCC	Joint Capability Coordination
JOC	Joint Operations Command
LCRC	Land Combat Readiness Centre
MOAC	Maritime Operational Analysis Centre
OCR	Operational Capability Review
OEMG	Operational Evaluation Management Group
OIL	Observation, Issue, Lesson
PAR	Post Activity Report
POR	Post Operational Report
RISG	Roadmap Implementation Steering Group
SCG	Strategic Command Group
SOCOMD	Special Operations Command
VCDF	Vice Chief of the Defence Force

Glossary

Combined activities
Operations or other activities involving more than one country.

Joint activities
Operations or other activities involving more than one Service.

Observations, Insights, Lessons (OILs)
Terminology used as part of Army's lessons process. 'Findings' and 'lessons learnt' are related terminology:

- Observation—encapsulates key elements observed by an individual. The observation must contain sufficient context to allow it to be examined in isolation to other objects.

- Insights—are developed from trends in the observations. They describe the general trend and offer an objective suggestion on how to enhance effectiveness.

- Finding—an identifiable pattern within the observations being examined. In documented form findings contain a synopsis of what that pattern is, containing the essential elements of context, accompanied by links to the relevant contributing observations.

- Lesson—an evolution of a finding; a lesson identified. A lesson contains all essential elements of context to allow it to have meaning in isolation and it contains links to the supporting observations. A lesson also contains action to be taken to implement the lesson as well as carrying the authority to take that action.

- Lesson Learnt—a lesson is learnt when it reflects standard behaviour after it has been implemented.

Operational analysis	The use of mathematical, statistical and other forms of analysis to explore situations and help decision makers to resolve problems. Facts and probabilities are processed into manageable patterns relevant to the likely consequences of alternative courses of action. The Defence Science and Technology Organisation (DSTO) is the ADF's source for operational analysis. Operational evaluation and operational analysis are similar and complementary activities, although with key differences.
Operational evaluation	Defence's process designed as a systematic approach to placing value on lessons and turning observations and known information into improvements to capability and preparedness, and to improve the planning and conduct of operations. Operational evaluation is intended to encompass the identification and action of lessons learnt, as well as assessments of whether activity aims and objectives were met, measured against pre-determined standards and criteria.
Operational tempo	The rate at which the ADF is able to deliver its operations effects, for example, the rate at which forces are dispatched and the time in which they are turned around for their next task. At the local level, high operational tempo may translate to the crew of an aircraft spending a very small amount of time on the ground before it is re-tasked for its next mission. At the organisational level, high operational tempo may translate to available fighting forces spending very little time at home before they are deployed again for their next operation.

Summary and Recommendations

Summary

Introduction

1. In recent years the Government has directed the ADF to conduct a wide range of operations, often in conjunction with other countries. These have included missions involving large numbers of personnel and equipment deployed to dangerous locations such as Afghanistan; long-term peacekeeping missions involving a smaller number of personnel to enforce peace undertakings; and shorter-term efforts to supervise elections in other countries or provide humanitarian and disaster relief.

2. Since the 1999 deployment to East Timor, the ADF has been called upon to operate in more theatres and fill more operational roles than at any time since its formation in 1975. Since 1999, the ADF has conducted 117 operational, humanitarian and disaster relief operations, 15 of which are ongoing.[1] Net additional expenditure on major ADF operations has been increasing since 2005–06, and is projected to be as much as $1.9 billion in 2011–12, as shown in Figure S 1.[2] In 2008–09, the ADF was engaged in 18 operations around the world deploying as many as 3500 personnel, with up to 12 000 ADF members in the operational deployment cycle, either preparing, on deployment, or reconstituting following return from deployment.[3]

3. The ADF's involvement in international operations has fostered international cooperation and assisted the development of inter-Service coordination.[4] Most ADF operations are now 'joint', employing elements from two or more Services under one Commander to achieve results that a single Service might not. Currently, ADF operations are planned, mounted,

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[1] Defence advice to ANAO, June 2011.

[2] Defence operations are funded on a 'no win, no loss' basis, where Defence is supplemented for all operational costs incurred but must return any surplus operational funding.

[3] See *Defence Annual Report 2008–09*, p. 2, and Department of Defence, *Defence: The Official Magazine*, Issue 4, 2008–09, p. 12, <www.defence.gov.au/defencemagazine/editions/200809_04/DEFMAG_080904.pdf> [accessed 4 June 2010]. Defence informed ANAO in June 2011 that the number of personnel in the operational deployment cycle during 2009–10 was of the same order as those for 2008–09.

[4] As well as joint operations, ADF operations include single-Service events and combined operations involving the forces of at least one other country, including training exercises to test and validate capability. Operational involvement may extend to other Australian Government agencies. Defence estimates that since 1999 they have conducted approximately 1300 exercises, excluding single-Service exercises.

conducted and controlled by Headquarters Joint Operations Command (HQJOC), under the command of the Chief of Joint Operations (CJOPS).[5]

Figure S 1

Net additional expenditure on major ADF operations, 1999–2000 to 2011–12
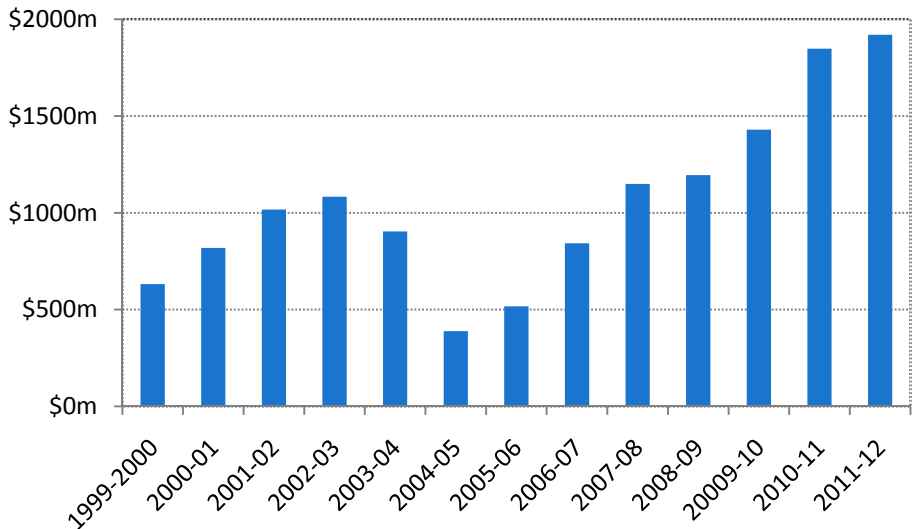
Source: ANAO analysis of Defence data. Figures for 2010–11 and 2011–12 are Defence estimates.

4.   The effectiveness of deployed ADF forces depends, in part, upon the ADF's ability to learn from experience to improve its operational performance. The ADF considers lessons and evaluation to be important activities supporting the pursuit and maintenance of a 'knowledge edge':[6]

> Defence needs to be a learning organisation that is adaptable to ensure that it can rapidly identify and investigate issues and disseminate solutions to maintain a knowledge edge to compensate for its small size.[7]

5.   A learning organisation uses experience to change its behaviour, deal effectively with change and complexity, and improve its capabilities.[8] From Defence's perspective:

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[5]   HQJOC was created in 2004, replacing the Headquarters Australian Theatre, and the separate position of CJOPS was created in 2007 after previously being the responsibility of the Vice Chief of the Defence Force.

[6]   *Australia's Strategic Policy*, Defence 1997, Department of Defence, Canberra.

[7]   Chief of the Defence Force, *ADDP 7.0: Doctrine and Training*, Australian Defence Doctrine Publication, January 2006.

A learning organisation has systems, mechanisms and processes in place that are used to continuously enhance its capabilities, and those who work with or for it, to achieve sustainable objectives for themselves and the organisation.[9]

6. In the ADF's view, maintaining a knowledge edge requires it to rapidly identify, analyse and incorporate into practice lessons learnt in the planning, preparation and conduct of operations. It is a significant challenge, particularly when operational tempo is high and the operational environment is complex:

The Knowledge Edge … is not a static and stable phenomenon which can be readily achieved or even understood, but rather one that is dynamic, volatile and elusive in nature.[10]

Defence's approach to learning from operations and exercises

7. Defence's two principal mechanisms for learning from operations and exercises are:

- observational lessons that arise from individual tasks and actions (for example changing procedures in response to observations of current enemy tactics or the observations of allied soldiers); and

- evaluations of military operational and exercise performance against objectives (for example assessment of the progress of individual operations against their stated objectives and targets).

8. The ADF's structures for learning from operations and exercises operate mainly at the Service level and, more recently, within HQJOC. At one end of the learning spectrum, lessons may arise through observation and action at any point in time. The term 'lessons' is widely used by the ADF and other military organisations to convey the idea of achieving an improvement in practice by observing activities, noticing a pattern of action or behaviour that

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[8]　See Senge, P, *The Fifth Discipline*, 1990, Random House Australia; 'Peter Senge and the learning organization', <http://www.infed.org/thinkers/senge.htm> [accessed 18 April 2011]; Malhorta, Y, 'Organizational Learning and Learning Organizations: An Overview', <http://www.brint.com/papers/orglrng.htm> [accessed 20 April 2011]; Mitleton-Kelly, E, 'What are the Characteristics of a Learning Organization?', <http://www.gemi.org/metricsnavigator/eag/What%20are%20the%20Characteristics%20of%20a%20Learning%20Organization.pdf> [accessed 20 April 2011].

[9]　Chief of the Defence Force, op. cit.

[10]　Burke, M, *Information Superiority, Network Centric Warfare and the Knowledge Edge*, DSTO-TR-0997, Defence Science and Technology Organisation, 2000, p. 7.

detracts from optimum performance, devising and applying a remedy, and then incorporating the remedy into standard practice.[11]

9.   At the other end of the learning spectrum, military organisations learn by evaluating their operational performance, through the planned, intentional assessment of the degree to which aims and objectives of operations are met, measured against pre-determined criteria. There can be a degree of overlap in these learning processes, such as when the evaluation of operations leads to the identification of lessons relating to the conduct of operations, including at the tactical level.

10.   To date, the ADF's focus on learning lessons, in common with many other armed forces, has primarily been on the tactical level, at which military activities and tasks are conducted. At the tactical level, lessons can be put straight into practice to protect lives and improve the effectiveness of day-to-day operational tasks, and the ADF's established 'lessons learnt' model reflects this tactical focus. The model comprises the four steps of collecting lessons, analysing them to identify appropriate action, getting approval for a particular course of action, then putting lessons into action.[12] At the time of this audit, Defence had in place a mandated ADF-wide system for recording lessons—the ADF Activity and Analysis Database System (ADFAADS)—as well as separate systems within Army and, more recently, HQJOC.

11.   In respect of evaluation, the ADF's mechanisms for evaluating its operational performance derive, in large part, from the long-standing practice of Commanders' reporting through Post Operational Reports (PORs—for operations) and Post Activity Reports (PARs—for exercises). In 2003 the ADF sought to enhance its operational evaluation through the development of pre-determined, standardised Australian Joint Essential Tasks (ASJETs), a common set of building-block tasks and activities from which operations and exercises can be planned and evaluated. The ASJETs were introduced to provide the opportunity for greater consistency in planning and evaluation, with the intention of reducing the reliance on the more subjective approach of 'professional military judgement'.

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[11]   The Australian Army's abstract definition of lessons is provided in the Glossary to this report.

[12]   The 'Australian Defence Organisation Lessons Learned Process' (collect, analyse, decide, implement).

12. Complementing and building on the introduction of ASJETs, in 2007 the ADF published its inaugural operational evaluation methodology. *Operational Evaluation* is one of Defence's key doctrines and is a guide to learning from ADF operations. It sets out Defence's broad approach to turning observations and known information into improvements to capability and preparedness, and to improved planning and conduct of operations. Notwithstanding that the title of this doctrine refers only to operational evaluation, in fact it encompasses both a 'lessons learnt' process (for the kinds of observational lessons referred to in paragraphs 8 and 10), and the methodology for evaluations of military operational and exercise performance against aims and objectives. The ADF's *Operational Evaluation* doctrine is well-suited to deriving lessons learnt from the performance of tasks and evaluation of the ADF's performance against military objectives.

13. More recently, the ADF and other armed forces have turned greater attention to evaluating the effects and impact of operations at the higher level of impacts and outcomes, under what is called the 'effects-based approach'. The effects-based approach has been trialled by the armed forces of the United States and is in its initial stages of exploration by the ADF. The focus of the approach is on the achievement of ADF outcomes, something that is more difficult to evaluate than lower level, task-based performance.

14. The effects-based approach is consistent with the United Nations' 2008 *Peacekeeping Operations Principles and Guidelines* (referred to as the 'Capstone Doctrine'), which codifies the largely unwritten body of knowledge arising from the 60 or more United Nations peacekeeping operations undertaken since 1948.[13]

Parliamentary scrutiny

15. In August 2008, the Senate Standing Committee on Foreign Affairs, Defence and Trade (the Committee) reported on its *inquiry into Australia's involvement in peacekeeping operations*. The Committee, recognising that it was difficult to assess the long-term impact of operations on the host population, nonetheless came to the view that Australia should measure the effect of its

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[13]   United Nations, *Peacekeeping Operations Principles and Guidelines*, New York, 2008, p. 8.

operational involvement against objective indicators.[14] The origins of this audit are in the Committee's request to the Auditor-General to:

> consider conducting a performance audit on the mechanisms that the ADF has in place for capturing lessons from current and recent peacekeeping operations including:
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> - the adequacy of its performance indicators;
>
> - whether lessons to be learnt from its evaluation processes are documented and inform the development or refinement of ADF's doctrine and practices; and
>
> - how these lessons are shared with other relevant agencies engaged in peacekeeping operations and incorporated into the whole-of-government decision making process.[15]

16.   In initial audit discussions, Defence informed ANAO that processes employed by the ADF for learning apply equally to peacekeeping operations as to any other ADF operation or training exercise—that is, there is not a specific learning process employed by the ADF for peacekeeping operations.

17.   Appreciating the importance of the subject matter and the challenges of evaluating and learning lessons from military operations, the Committee's request was considered in the context of an audit covering all ADF operational deployments and military exercises.

Audit objectives and scope

18.   The objective of the audit is to assess the effectiveness of the ADF's mechanisms for learning from its military operations and exercises. In particular, the audit focused on the systems and processes the ADF uses for identifying and acting on lessons, and for evaluating performance. The ANAO also examined the manner in which information on lessons is shared within

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[14]   Senate Standing Committee on Foreign Affairs, Defence and Trade, *Australia's involvement in peacekeeping operations*, Canberra, August 2008, pp. 333-339. A previous inquiry conducted by the Committee into Australia's public diplomacy raised similar issues. The report noted that the focus of the Department of Foreign Affairs was measuring at an activity level rather than on the immediate or long term effects of diplomacy. The Committee recognised that evaluating the effectiveness of public diplomacy is difficult, however it needed to be done, and a range of indicators needed to be established to monitor and assess effectiveness (with surveys measuring attitudes and changes in perceptions one method). See Senate Standing Committee on Foreign Affairs, Defence and Trade, *Australia's public diplomacy: building our image*, Canberra, August 2007, pp. 170-182.

[15]   ibid., p. 339.

the ADF, with other relevant government agencies, and with international organisations. Reporting to Parliament was also considered.

Overall conclusion

19. The capacity to learn from military operations is an essential requirement for the ADF if it is to achieve a 'knowledge edge' to compensate for its size. Lessons learnt from observation and experience can protect lives and improve operational effectiveness. In addition, operational evaluations highlight progress in meeting objectives, informing necessary changes to operations, and providing a degree of accountability for the personnel and materiel resources committed to operations.

20. Defence has structures in place to learn from operations and exercises, and in recent years there have been attempts to improve these as Defence has recognised their importance. However, the application of the ADF's learning framework is patchy and fragmented. Army pays significant attention to collecting, recording and acting on immediate and short-term lessons. This is not the case for the Navy or the Air Force, neither of which presently captures immediate or short-term lessons. The processes for capturing and acting on lessons from joint operations have been improved within HQJOC and are now better aligned with operational tempo.

21. The key ADF-wide information system provided in 1999 to support lessons and evaluations (ADFAADS) has fallen into disuse. Army was not a heavy user of ADFAADS and has developed its own lessons systems. ADFAADS has been effectively supplanted by fragmented, Service-specific arrangements and there is now no up-to-date central repository for lessons and operational evaluations that can be used by staff that plan operations. At the time of this audit, HQJOC was considering how it might best coordinate existing Service-level lessons agencies in order to assist in the planning and evaluation of operations and exercises.

22. The conduct of in-depth and detailed evaluations of operations has only recently commenced within HQJOC, with limited coverage up until 2009. The ADF's *Operational Evaluation* doctrine is well thought-out, but has yet to receive widespread application to operations and major exercises. To date, Defence's overall approach to learning has placed more emphasis on observational lessons than on operational evaluation.

23. The lesser priority previously given to evaluation was evident during the ADF's re-alignment of its operational evaluation functions during the formation of HQJOC in 2008. There was a poor transfer of existing knowledge and experience, key functions were overlooked, some important improvements to lessons and evaluation processes stalled, and there was a hiatus in ADF operational evaluations lasting some twelve months.

24. Up until 2009, there had been discrete evaluations of aspects of five out of 117 operations, and of seven major exercises: none assessed progress toward operational outcomes. This greatly restricts the opportunities to measure the performance of the ADF in action and has limited the ADF's capacity to assess its performance against the objectives set by the Government when it committed the ADF to action. The limited coverage and scope of operational evaluations is likely to continue until the ADF affords it greater priority and assigns resources for evaluation of operations, commensurate with their scale and importance.

25. A recent, more promising development is the ADF's exploration of the internationally recognised 'effects-based approach' to evaluating operations. Aspects of this approach are being trialled in ADF assessments of three ongoing campaigns (East Timor, Afghanistan and the Solomon Islands). The effects-based approach affords greater opportunity for evaluating outcomes, for integrating evaluation with other Australian Government agencies, such as the Australian Federal Police (AFP), and for informing the Parliament and the public of the long-term impacts of operations. At the time of this audit, effects-based approach assessments have focused on the achievement of Defence goals, and did not yet engage the efforts of other government agencies or extend to measuring progress toward government strategic outcomes.

26. Briefings to Parliament on operations by the Chief of the Defence Force (CDF) are supported by well-established senior committee structures, involving the Service Chiefs and other senior military officers. Defence could improve its reporting to Parliament via its operational Key Performance Indicators by ensuring that these are well-supported by operational evaluations and other relevant data from the ADF's lessons processes.

27. In view of the fragmented approach that has applied to practices for capturing the experience of operational activities, and the interest in identifying and reporting progress toward operational outcomes, there is a need to consolidate and reinforce the importance of capturing this experience and contribute to the ADF gaining a 'knowledge edge'. ANAO has made five

recommendations to consolidate and improve the focus of the ADF's mechanisms for lessons and operational evaluation, including where other Australian Government agencies are involved in operations, and in reporting outcomes to Parliament.

Key findings

Learning lessons from observation and experience

28.   Many areas of the ADF have made significant changes in recent years in order to improve the way they learn lessons from operations and exercises. Of the Services, Army has the most developed lessons systems, encompassing immediate and short-term lessons from operations, supported by dedicated databases and intranet portals. Army's lessons systems provide a useful response to the immediate needs of personnel deployed on operations and exercises. By contrast, systems for identifying and recording immediate and short-term lessons are not as well-developed in Navy and Air Force.

29.   In response to identified deficiencies in its processes for recording and learning from lessons and evaluations, in 2007 Defence established a Knowledge Management Roadmap and other high level initiatives. However, there was subsequently a lack of progress due, in part, to the partial re-allocation in 2009 of key responsibilities for evaluation to the newly-formed HQJOC. As a result, some key roles and responsibilities were overlooked and adequate staffing was not provided for all evaluation and lessons functions to continue to operate. Since the time of audit fieldwork, Defence has established a new central forum, with representation from different parts of Defence and the Services, to consider and progress joint lessons initiatives (see Appendix 1).

30.   The ADF currently has a fragmented approach to capturing, recording and acting on lessons. Coordination and information-sharing between Services is rudimentary and the effectiveness of the current approaches has yet to be assessed by the ADF. It is also not yet clear how joint tactical lessons are to be identified and shared, and HQJOC is still developing an approach to assessing exercises and involving Service-level lessons agencies in its planning for operations. In this respect, the UK Defence Lessons Identified Management System (DLIMS) is an information technology solution that may provide a model for sharing lessons between the Services and with HQJOC.

Recording lessons and evaluations

31. In 1998, the ADF developed and subsequently mandated the use of ADFAADS to provide a source for the ADF to access knowledge gained from past operations and exercises. However, limitations in the design, accessibility and resources allocated to ADFAADS have resulted in declining use of the system since 2006. These factors have detracted from ADFAADS' usefulness as a tool for monitoring and evaluating the issues raised and lessons learnt from operations, and prevented the analysis of trends.

32. A re-invigorated effort to coordinate and manage the ADF's operational knowledge is a key pre-requisite for learning from operations and lessons. Given that ADFAADS is no longer being used in the manner or extent intended, attention needs to be given to developing a succession plan for a replacement system including:

- establishing the scope of lessons and/or evaluations (including international and inter-agency lessons and evaluations) to be recorded;

- ranking the relative importance of the issues to be recorded, allowing for the escalation of matters of lasting significance and the rapid processing of lessons;

- ensuring effective links to other systems and other solutions already being adopted by the Services and JOC;

- planning for the capture and migration of relevant ADFAADS data;

- ensuring a high level of useability, to encourage and support its adoption; and

- designing to allow comprehensive search and data-mining to support operational planning and analysis, especially of trends across more than one operation.

33. A hallmark feature of the arrangements put in place by the ADF's international counterparts is the move toward consolidated systems for collecting and storing lessons and evaluations of operations.[16]

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[16] The UK Defence Lessons Identified Management System (DLIMS) was developed to become a Defence-wide lessons application, however discrete domains can be established within it that have their own management procedures and access controls, enabling privacy within the overall DLIMS construct.

Evaluating operations

34. Thus far, the ADF's approach to evaluating and learning from operations and exercises, while supported by a useful and flexible methodology in the form of the ADF's 2007 *Operational Evaluation* doctrine, has tended to focus on lessons and has made limited progress toward evaluating performance. The doctrine, which provides guidance for its practical application and sets out the responsibilities and the activities involved, provides a clear and flexible guide for the ADF to learn lessons and assess performance. It is well-developed and can be applied at the tactical, operational and strategic levels, and can target different types of operational activities.

35. The doctrine could be improved by including guidance on establishing a hierarchy of analysis. This could extend to placing the highest priority on assessing operations, which would then take precedence over the evaluation of collective training, exercises and other ADF activities. Such an approach would make more effective use of the ADF's slender evaluation resources. In practice, the use of the doctrine would benefit from the systematic application of predetermined conditions, standards and measures, which the ADF has previously developed under the Australian Joint Essential Tasks (ASJETs) framework.[17] To date, there is little evidence that ASJETs have been fully utilised.

36. While the doctrine and supporting ASJETs are in place, Defence has yet to apply a consistent, systematic ADF-wide approach to undertaking evaluations of operations. No Service has a dedicated mechanism for assessing the performance of its force elements deployed on operations. There has been a lack of consistency in the structures and processes adopted in each of the Services and, at the joint level, limited resourcing, so that staff for operational evaluation are in short supply, resulting in limited coverage of operations to date.

37. The fragmented approach to operational evaluation was exacerbated during the formation of HQJOC, at which time the transfer of knowledge to successor organisations was poorly managed by Defence, and led to the ADF's

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[17] The ASJETs are held on a Lotus Notes database accessed through ADFAADS, which has not been well maintained (see Chapter 3 for detailed discussion of ADFAADS).

operational evaluation functions being greatly diminished for at least a year.[18] Overall, the slender resources currently made available for evaluations are very likely to continue to restrict evaluation activities to a small proportion of ADF operations and exercises.

HQJOC evaluations

38. HQJOC has recently begun to conduct an outcomes-focused approach to operational evaluation that it calls 'campaign assessments'. The goal is to measure, through subjective and objective means, progress toward Defence-sought outcomes for a campaign, typically an operation sustained over an extended period. Campaign assessments are a markedly improved approach to assessing operations compared to past ADF approaches:

- Campaign assessments are developed based on the Defence-level outputs and outcomes sought, focusing at a higher level than past operational evaluations that tested various operational inputs.

- They incorporate more robust measures of performance and effectiveness, offering a more structured approach to informing decision-makers and allowing for better comparison over time.

39. Like other recent initiatives across the Services, the campaign assessment process is still in its infancy, and Defence is still learning to adapt its approach, based on its experience. To date, assessment has focused on the achievement of Defence goals, and does not yet extend to including the impact of the efforts of other government agencies. The campaign assessment process has similarities to the approach being developed by the AFP, which has adopted an outcome-based approach to evaluating progress and determining success, and seeks to involve additional stakeholders in the evaluation process.

Sharing operational experience with other agencies

40. The ADF's development of campaign assessments, and exploration of the outcomes-focused effects-based approach to campaign assessment, offers the ADF a framework for working with other entities to assess whole-of-government operational outcomes. ADF operations are planned and conducted within the whole-of-government national crisis management

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[18] Defence informed ANAO that the departure dates of the four ADFWC staff were staggered over the last year of ADFWC's operation, although this draw down did impact on the deployment of operational evaluation teams.

machinery. Defence is invariably involved in responding to crises with national security dimensions, which frequently involve other government and non-government agencies. The ANAO considers that where deployments comprise both the ADF and the AFP, there would be merit in the agencies working together to undertake assessment, based on an agreed framework, of the whole-of-government outcomes, involving other agencies such as AusAID where appropriate.

41.   The ADF's performance in sharing lessons in relation to operational activities within its own organisation is mixed, and its processes for sharing relevant operational lessons with other agencies are not yet regular or systematic. In this regard, the recently established Asia Pacific Civil-Military Centre of Excellence (the Centre) has the potential to provide a forum for identifying potential whole-of-government lessons, as well as assisting in the development of a whole-of-government approach to performance measurement. The Centre has not been established for sufficient time for the ANAO to assess its effectiveness.

Reporting to Parliament

42.   Defence has in place structures and processes to ensure that CDF is well placed to provide Parliament with up to date information on the conduct and progress of ADF operations. The principal structures supporting CDF's role are the Strategic Command Group (SCG) and the Chiefs of Service Committee (COSC). The SCG is a forum for discussion of operations, and COSC provides military advice to assist CDF in discharging his responsibilities in commanding the Defence Force and as principal military adviser to the Government.

43.   In addition, Defence's Annual Report provides information on ADF operational performance. The reported operational Key Performance Indicators (KPIs) provide an overview of the performance of Defence operational activities at the outputs level, though the information provided is general in nature and offers little insight into the conduct of operations and exercises and their impact. Defence's operational KPIs would benefit from better-specified measures of success, including information on how success was gauged, and be better informed by a structured process that draws upon well formed evaluations.

Agency responses

44. Defence's response to the report is reproduced below:

Defence appreciates the audit undertaken by the ANAO and advised that progress has been made in developing the lessons and evaluation framework, but does acknowledge that there is scope for improving the way that Defence learns from operations and exercises. There is more work to be done in putting in place consistent methods for identifying, analysing, implementing and validating lessons, and importantly, ensuring that relevant lessons can be effectively shared across the Services. The five recommendations proposed by the ANAO have all been agreed by Defence, and reflect initiatives already being pursued.

The findings of the audit are being used by Defence to further progress improvements in the joint and single service lessons areas, noting there have been significant changes in the management structures and coordination for lessons in the 16 months since the ANAO audit commenced. In particular, implementation of a new governance framework for lessons has led to progress consistent with the ANAO recommendations. Joint Capability Coordination Division now coordinates Joint Lessons and Evaluation across Defence, and employs the Joint Capability Coordination Committee and the Joint Lessons and Evaluation Working Group to drive and facilitate interaction between individual Service lesson agencies. It identifies lessons that are relevant beyond an individual Service, and focuses on delivering capability development requirements for joint lessons and evaluation.

While Defence is not the lead agency for measuring Whole-of-Government performance and progress towards government objectives, it participates in many inter-departmental fora and will work with other agencies to develop a structured approach to measuring Whole-of-Government performance. As identified in the report, Defence must evaluate how well campaign and operation objectives are being met, and Headquarters Joint Operations Command is well progressed in developing Campaign Assessment processes.

Defence is committed to continuously improving both its learning framework, and the evaluation of operational performance.

45. The AFP's summary response to the report is reproduced below. Their full response is at Appendix 2.

The AFP welcomes the ANAO audit report on the *Australian Defence Force's Mechanisms for Learning from Operational Activities*. The AFP notes there are no specific recommendations for the AFP.

Recommendations

Recommendation No. 1

Paragraph 2.51

ANAO recommends that, to improve their ability to learn from operations and exercises, the Services put in place consistent methods for identifying, analysing, implementing and validating lessons, and ensure that relevant lessons can be effectively shared across Services.

Defence response: Agreed.

Recommendation No. 2

Paragraph 3.45

ANAO recommends that, to support an ADF-wide approach to learning from operations and exercises, the ADF establish a clear role and scope for future operational knowledge management repositories, and develop a clear plan for capturing and migrating relevant existing information.

Defence response: Agreed.

Recommendation No. 3

Paragraph 4.42

ANAO recommends that Defence develop a consistent approach to applying the operational evaluation doctrine to significant operations and exercises.

Defence response: Agreed.

Recommendation No. 4

Paragraph 4.69

ANAO recommends that, to better inform key stakeholders on progress of overseas operations, Defence work with relevant agencies to develop a structured approach to measuring whole-of-government performance and progress toward government objectives.

Defence response: Agreed.

Recommendation No. 5

Paragraph 5.25

ANAO recommends that, to improve performance evaluation of operations and exercises, and better inform its performance reporting to Parliament, Defence:

(a)   apply suitable criteria and a structured approach to evaluating performance; and

(b)   develop a clear and structured process that includes evaluations of operations to inform relevant performance indicators reported to the Parliament.

Defence response: Agreed.

Audit Findings
and Conclusions

1. Introduction

This chapter provides information on the background to the audit, an overview of ADF operations, and canvasses the relevant findings from the 2008 Senate Standing Committee on Foreign Affairs, Defence and Trade report on its inquiry into Australia's involvement in peacekeeping operations. It also describes international experience in these activities, outlines the ADF's mechanisms for learning lessons from and for evaluating operations, and outlines the audit approach.

Background

1.1   Along with other modern armed forces, the Australian Defence Force (ADF) faces the challenge of learning lessons from, and evaluating the effectiveness of, its operational activities. The ADF trains and structures itself to prepare for high intensity war fighting. In practice, it has mainly been involved in other types of operations since 1947, when officers were deployed to the Dutch East Indies as peacekeepers.[19] The spectrum of ADF operations includes interventions sanctioned by the United Nations, as well as support to civil governments responding to natural disasters or humanitarian crises.

1.2   In recent decades, the ADF's involvement in operations has become more varied and frequent. Defence estimates that, since the 1999 deployment to East Timor, the ADF has conducted approximately 117 operations. During 2008–09, the ADF was engaged in 18 operations around the world with a peak total contribution of 3500 personnel.[20] The current 'operational tempo'[21] means that, at any one time, there will be a significant number of additional personnel in the operational deployment cycle. During 2008, up to 12 000 members of the ADF had been in the operational deployment cycle, either preparing, on

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[19]   Lt. Gen. Ken Gillespie, Vice Chief of Defence Force, Senate Foreign Affairs, Defence and Trade Committee Hansard, Canberra, 24 July 2007, p. 1.

[20]   *Defence Annual Report 2008–09*, p. 2. The Defence portfolio consists primarily of three organisations: the Department of Defence (headed by the Secretary of Defence), the Defence Materiel Organisation (headed by its Chief Executive Officer), and the ADF (which consists of the Army, Navy and Air Force, and is headed by the Chief of the Defence Force). These organisations work together and are known simply as Defence (or the Defence organisation). In 2010–2011, the ADF is expected to have approximately 57 000 permanent uniformed personnel and approximately 20 500 reserve personnel, with the majority of these personnel residing within Army. See Department of Defence, *Portfolio Budget Statements 2010–11*, p. 3;1 *Defence Annual Report 2008–09*, p. 38.

[21]   'Operational tempo' is defined as 'the rate at which the ADF is able to deliver its operations effects, for example, the rate at which forces are dispatched and the time in which they are turned around for their next task'. *Defence Annual Report 2008–09*, p. 372.

deployment, or reconstituting following return from deployment.[22] The net additional costs of major ADF operations was $1.5 billion in 2009–10 and is estimated to rise to $1.9 billion in 2011–12, as shown in Figure 1.1.[23]

Figure 1.1

Net additional expenditure on major ADF operations, 1999–2000 to 2011–12
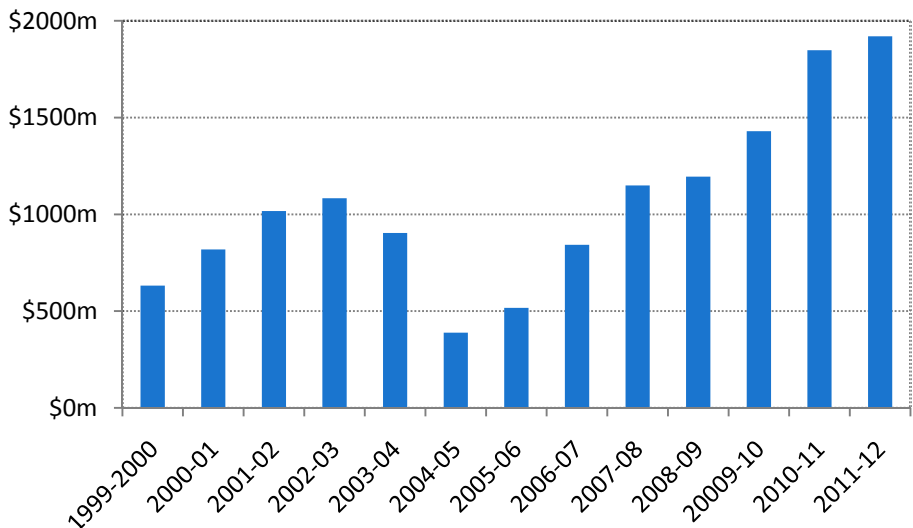
Source: ANAO analysis of Defence data. 2010–11 and 2011–12 figures are Defence estimates.

Operations

1.3   Internationally, the proliferation of peacekeeping and other operations has driven the development of structures to coordinate and deliver multi-lateral forces. The knock-on effect for national defence forces has been to add to the existing impetus toward inter-Service coordination.[24] In Australia, joint operational command structures have been evolving since the position of the

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22 Department of Defence, *Defence: The Official Magazine*, Issue 4, 2008–09, p. 12, <www.defence.gov.au/defencemagazine/editions/200809_04/DEFMAG_080904.pdf> [accessed 4 June 2010]. Defence informed ANAO in June 2011 that the number of personnel in the operational deployment cycle during 2009–10 was of the same order as those for 2008–09.

23 See Department of Defence, *Portfolio Budget Statements 2011–12: Agency Resources and Planned Performance*, p. 32. Defence operations are funded on a 'no win, no loss' basis. Defence advised ANAO in June 2011 that the full costs of operations are not captured, as Government seeks only to supplement Defence funding for the 'net additional' cost of conducting an operation.

24 The Oxford Companion to American Military History, Oxford University Press, 2000.

Chief of the Defence Force Staff was created in 1975 to command the newly created ADF.[25]

1.4   Most operations now undertaken by the ADF are 'joint', consisting of force elements from two or more Services operating together under one Commander. ADF joint forces normally comprise one or more joint task forces assembled from Service force elements tailored to meet specific contingencies. A joint task force may constitute a minor contribution of multi-Service force elements assigned to a specific task, or a major joint task force assigned as part of a wider campaign. Higher intensity and multifaceted operations carry a greater imperative for joint action, notably when contributing to a multinational operation.[26] All of Defence's operations are currently planned, mounted, conducted and controlled by Headquarters Joint Operations Command (HQJOC), commanded by the Chief of Joint Operations (CJOPS).[27]

Exercises

1.5   Exercises are distinct from operations and focus on training and on enhancing and testing the preparedness of ADF forces. Valuable lessons can be learned, and exercises can be evaluated to give an indication of likely operational effectiveness. The ADF undertakes single-Service, joint and combined (conducted with at least one other country) exercises as part of training to test and validate its equipment and procedures, in preparation for potential future operational deployments. These vary considerably in scale and complexity, ranging from multinational events involving all Services over an extended period and a wide geographical area,[28] through to biennial and

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[25]   The position of Chief of the Defence Force Staff became the Chief of the Defence Force in 1986. Andrews, E, *The Australian Centenary History of Defence Volume 5: The Department of Defence*, Oxford University Press, Melbourne, 2001, pp. 198-199, 213; Australian Army History Unit, *History index: Part 3: Peace, War and Peacekeeping: 1945-2009*;
<http://www.defence.gov.au/army/ahu/docs/PART_3.pdf>, p. 7 [accessed 12 August 2010].

[26]   The ADF also conducts Special Operations (military activities conducted by specially designated, organised, trained and equipped forces using techniques not adopted by conventional forces), which may be conducted independently or in conjunction with operations of conventional forces.

[27]   HQJOC was created in 2004, replacing the Headquarters Australian Theatre, and the separate position of CJOPS was created in 2007 after previously being the responsibility of the Vice Chief of the Defence Force. See Department of Defence, *Defence Annual Report 2008–09*, Department of Defence, Canberra, 2009, p. 108; Minister for Defence, 'Defence Management Changes', *Media Release*, 19 September 2007; ANAO Audit Report No. 32 2008–09 *Management of the Tendering Process for the Construction of the Joint Operations Headquarters*, pp. 43-44.

[28]   For example, Exercise Talisman Saber is a biennial combined exercise, designed to train Australian and United States forces in planning and conducting Combine Task Force operations in order to improve ADF/US combat readiness and interoperability. Department of Defence, 'Talisman Saber 09', <www.defence.gov.au/opEx/exercises/ts09/index.htm> [accessed 4 June 2010].

annual ADF joint exercises, down to training exercises involving individual force element groups from within a single Service. Some exercises may include participation from other Australian Government agencies.

1.6 In any one year, there may be 20 major joint or combined exercises, and each Service may also undertake one or two major single Service exercises. Many smaller scale exercises are also undertaken. Defence informed the ANAO that since 1999, the ADF has conducted approximately 1300 exercises, excluding single–Service exercises.

Parliamentary scrutiny

1.7 In August 2008, the Senate Standing Committee on Foreign Affairs, Defence and Trade (the Committee) reported on its *inquiry into Australia's involvement in peacekeeping operations.* The Committee examined the changing nature of Australia's involvement in peacekeeping operations and took a broad range of evidence and submissions on the roles of the ADF and the Australian Federal Police (AFP) in peacekeeping operations.

1.8 The Committee recognised that it was difficult to assess the effectiveness of any peacekeeping operation, especially the long-term impact on the lives and perceptions of the host population. Nonetheless, it came to the view that Australia should measure the effect of its involvement against objective indicators that were results-oriented, could effectively plot progress toward achieving mission objectives, and that anticipated the difficulties of achieving sustainable peace.[29]

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[29] Senate Standing Committee on Foreign Affairs, Defence and Trade, *Australia's involvement in peacekeeping operations*, Canberra, August 2008, pp. 333-339. A previous inquiry conducted by the Committee into Australia's public diplomacy raised similar issues. That report noted that the focus of the Department of Foreign Affairs was measuring at an activity level rather than on the immediate or long term effects of diplomacy. The Committee recognised that evaluating the effectiveness of public diplomacy is difficult, however it needed to be done, and a range of indicators needed to be established to monitor and assess effectiveness (with surveys measuring attitudes and changes in perceptions one method). See Senate Standing Committee on Foreign Affairs, Defence and Trade, *Australia's public diplomacy: building our image*, Canberra, August 2007, pp. 170-182.

1.9 The Committee specifically inquired into lessons learnt from Australia's recent participation in peacekeeping operations that would assist government to prepare for future operations.[30] Among the Committee's 38 recommendations was a request to the Auditor-General to:

> consider conducting a performance audit on the mechanisms that the ADF has in place for capturing lessons from current and recent peacekeeping operations including:
>
> - the adequacy of its performance indicators;
>
> - whether lessons to be learnt from its evaluation processes are documented and inform the development or refinement of ADF's doctrine and practices; and
>
> - how these lessons are shared with other relevant agencies engaged in peacekeeping operations and incorporated into the whole-of-government decision making process.[31]

1.10 During initial discussions in 2010, Defence informed the ANAO that the processes employed by the ADF for capturing and communicating lessons are the same for peacekeeping operations as they are for any other operation, exercise or activity. Appreciating the challenges of evaluating and learning lessons from military operations, the Auditor-General decided on a broader performance audit covering all types of ADF operational deployments, including exercises and activities undertaken by the ADF in preparation for future operations.

International experience and developments

1.11 ANAO's survey of the approaches used by other countries' defence forces confirms the challenges and complexities of evaluating operations and learning lessons. Recent developments in this sphere have been brought about by the proliferation of operations and the desire for deeper analysis and more timely insight into operations. While new technologies hold out the prospect of more effective, efficient and responsive armed forces able to rapidly learn from

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[30] ibid., p. 1.

[31] ibid., p. 339.

operations,[32] this potential must be tempered by the fact that progress has been slow and, at times, halting:

> Sixty years—that's the answer to the question of how long it has taken the [*US*] Department of Defense to transform the concept of how best to share what we learn into the reasonably viable program we know today. Starting as far back as 1947 with the National Security Act, the DOD [*Department of Defense*] has made several attempts to 'break the code' on how best to collect, analyze, and share information among the Services.[33]

1.12 The difficulties are borne out in the findings of reports of the United States Government Accountability Office (GAO) in 1979, 1985 and 1995. In 1979, the systems for identifying, analysing and following up on exercises were not effective, and the benefits of exercise lessons learnt were not fully realised.[34] In 1985, the GAO found that, while individual Service level and command-specific lessons learnt systems had been developed, they were not integrated and could not share lessons.[35] Ten years on, not all significant lessons were being collected, recurring deficiencies were overlooked and follow-up and validation were insufficient.[36]

1.13 It was not until 2004 that the United States Department of Defense established the Joint Center for Operational Analysis to collect, analyse and disseminate lessons learnt and best practices across the full spectrum of military operations, in order to integrate recommendations and improve joint warfighting capability.[37] Defence advised ANAO that the United States

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[32] Improvements in communication and analysis may allow the rapid transmission of insights from the operational arena to commanders and vice versa. It may also be possible to create 'joined-up' and 'networked' defence forces, with greater interaction and cooperation between the Services and other Defence elements.

[33] Barker, M, 'The Transformation of the Joint Lessons Learned Program', *Joint Center for Operational Analysis Journal*, Volume IX, Issue 3, September 2007, p. 42.

[34] United States Government Accountability Office, *Improving The Effectiveness Of Joint Military Exercises—An Important Tool For Military* Readiness, December 1979, pp. 29, 44, 71.

[35] United States Government Accountability Office, *Management Of The Joint Chiefs Of Staff Exercise Program Has Been Strengthened, But More Needs To Be Done*, March 1985, pp. i, iii, iv, 37.

[36] United States Government Accountability Office, *Potential to Use Lessons Learned to Avoid Past Mistakes is Largely Untapped*, August 1995, pp. 2, 3-6.

[37] On 9 August 2010, the United States Secretary of Defense announced that he was recommending the closure of the US Joint Forces Command (USJFCOM), with responsibilities deemed essential reassigned to other entities. However, as at November 2010 the status of this proposed closure, and the impact on the Joint Center for Operational Analysis (which resides within USJFCOM), was unclear.

Department of Defense has now decided to deploy the Joint Lessons Learned Information System (JLLIS) as the single, Defense-wide application to be used by all commands to collect and share lessons information. Defence informed ANAO that the United States is seeking to extend JLLIS to selected allies (Australia, United Kingdom and Canada) to facilitate sharing of coalition lessons.

1.14　Similar experiences are apparent in the United Kingdom. Recent rapid improvements in armed forces' lessons processes are evident in the findings of the United Kingdom National Audit Office (NAO) reports on the United Kingdom Ministry of Defence's lessons processes. In 2001, NAO found that that 'the [*UK Ministry of Defence*] had comprehensive arrangements for identifying lessons' from a major exercise, although 'some lessons identified during previous operations were re-learnt'.[38] In 2003, NAO warned that:

> lessons identified during warfighting should not slip unjustifiably down the priority list in peacetime.[39]

1.15　It was not until 2009 that NAO found 'a good process of capturing lessons learnt which appears to be well embedded'.[40] The ADF advised ANAO that the United Kingdom Vice Chief of the Defence Staff has mandated the Defence Lessons Identified Management System (DLIMS) as the Defence-wide lessons sharing system, and it is used by the majority of the United Kingdom military. The structure of DLIMS and the way it manages lessons shares features with the ADF mandated lessons systems, ADFAADS (discussed in Chapter 3).

The effects-based approach to operations

1.16　Alongside the operational developments in gathering and acting on lessons, governments have sought a more holistic view of the efficacy of the

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See United States Joint Forces Command, *Joint Center for Operational Analysis*, <http://www.jfcom.mil/about/fact_jcoa.htm> [accessed 25 November 2010]; Secretary of Defense Robert M. Gates, 'Statement on Department Efficiencies Initiative', speech, 9 August 2010, <http://www.defense.gov/speeches/speech.aspx?speechid=1496> [accessed 25 November 2010]; Lessig, H, 'Virginia officials more optimistic on JFCOM after meeting Gates', 23 November 2010, <http://articles.dailypress.com/2010-11-23/news/dp-nws-jfcom-meeting-gates-20101123-25_1_jfcom-nato-s-allied-command-transformation-joint-forces-command> [accessed 25 November 2010].

[38]　National Audit Office, *Exercise Saif Sareea II*, August 2002, p. 2.

[39]　National Audit Office, *Operation TELIC – United Kingdom Military Operations in Iraq*, December 2003, pp. 35-36.

[40]　National Audit Office, *Support to High Intensity Operations*, May 2009, pp. 6, 37.

involvement of their armed forces in operations. There has also been considerable development in the academic literature, most recently in the development of the effects-based approach to operations. The United States in particular has trialled operational planning and evaluation based on the effects generated by operations, as an alternative to evaluating the sequencing and completion of discrete operational tasks. This approach allows the complexity of joint operations to be accounted for, including the parts played by other forces and by non-government organisations, and greater consideration of the social and cultural impacts of operations.[41]

Learning lessons and evaluating operations in the ADF

1.17 A learning organisation uses experience to change its behaviour, deal effectively with change and complexity, and improve its capabilities.[42] From Defence's perspective:

> A learning organisation has systems, mechanisms and processes in place that are used to continuously enhance its capabilities, and those who work with or for it, to achieve sustainable objectives for themselves and the organisation.[43]

1.18 Defence's two principal mechanisms for learning from operations and exercises are:

- observational lessons that arise from individual tasks and actions (for example changing procedures in response to observations of current enemy tactics or the observations of allied soldiers); and

- evaluations of military operational and exercise performance against objectives (for example assessment of the progress of individual operations against their stated objectives and targets).

1.19 The current challenges for the ADF, and for other modern armed forces, are: how to make best use of lessons (especially at the tactical level) to

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[41] Meharg, SJ, *Measuring Effectiveness in Complex Operations: What is Good Enough?*, Canadian Defence and Foreign Affairs Institute, Canada, 2009, p. 8.

[42] See Senge, P, *The Fifth Discipline*, 1990, Random House Australia; 'Peter Senge and the learning organization', <http://www.infed.org/thinkers/senge.htm> [accessed 18 April 2011]; Malhorta, Y, 'Organizational Learning and Learning Organizations: An Overview', <http://www.brint.com/papers/orglrng.htm> [accessed 20 April 2011]; Mitleton-Kelly, E, 'What are the Characteristics of a Learning Organization?', <http://www.gemi.org/metricsnavigator/eag/What%20are%20the%20Characteristics%20of%20a%20Learning%20Organization.pdf> [accessed 20 April 2011].

[43] Chief of the Defence Force, *ADDP 7.0: Doctrine and Training*, Australian Defence Doctrine Publication, January 2006.

support the practice of evaluation at the tactical and operational levels; and how to extend evaluation to assess the achievement of the intended outcomes and impacts of operations. Internationally, lessons and evaluation have been widely adopted as an accepted part of defence force business and have been the subject of analysis and development. Lessons and evaluation are important activities supporting the pursuit of a 'knowledge edge':[44]

> Defence needs to be a learning organisation that is adaptable to ensure that it can rapidly identify and investigate issues and disseminate solutions to maintain a knowledge edge to compensate for its small size.[45]

1.20 In the ADF's view, maintaining a knowledge edge requires it to rapidly identify, analyse and incorporate into practice lessons learnt in the planning, preparation and conduct of operations. It is a significant challenge, particularly when operational tempo is high and the operational environment is complex:

> The Knowledge Edge … is not a static and stable phenomenon which can be readily achieved or even understood, but rather one that is dynamic, volatile and elusive in nature.[46]

1.21 Table 1.1 sets out the generally accepted levels at which military operations can be analysed and evaluated. To date, Table 1.1 has largely involved assessment at the:

- *tactical level*, at which operational decisions are implemented and activities and tasks are conducted. At this level:

    - evaluation can indicate the degree to which the intended operational outcomes are likely to be achieved; and

    - valuable lessons can be learned that can be directly applied to protect lives and to make day-to-day operational activities more effective;

- *operational level,* covering the planning and conduct of operations to achieve the military outcomes intended to help obtain the government's strategic objectives; and

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[44] *Australia's Strategic Policy*, Defence 1997, Department of Defence, Canberra.

[45] Chief of the Defence Force, op. cit.

[46] Burke, M, *Information Superiority, Network Centric Warfare and the Knowledge Edge*, DSTO-TR-0997, Defence Science and Technology Organisation, 2000, p. 7.

- *strategic level*, at which government defines policy objectives for operations, including the strategic outcomes and impacts sought, with military resources one among other contributing factors.

Table 1.1

Hierarchy for analysing and evaluating military operations

Focus of issue analysis	Intended goal	Key stakeholders and information deliverables
Strategic (ends/objectives): Identifying changes to the strategic environment resulting from operations, including unforeseen consequences.	**Impact:** 'The positive and negative, primary and secondary long-term effects produced by [*an operation*] directly or indirectly, intended or unintended'.	**Parliament, Ministers of State, top level military commanders, government agency partners, international partners (government and non-government).** Strategic information and assessments, including insights that are likely to be large scale and enduring. Evaluations take into account military and non-military influences.
Operational (ways/effects)— strategic: Issues affecting planned and actual military outcomes or intended end-state. Early assessment and analysis to help adjust the operational objectives.	**Outcome:** 'The likely or achieved short-term and medium term effects of [*an operation's*] outputs', relating directly to the operation's overall objectives' (intended impact).	**Parliament, Ministers of State, top level military commanders, government agency partners, international partners.** Performance information and assessments of the effectiveness of joint planning, operational execution and the achievement of intended outcomes. Evaluations primarily focus on military contributions.
Tactical (means/action)— operational: Structured analysis of operational outputs to provide early assessments of the likely prospects of meeting planned outcomes.	**Outputs:** 'The products, capital goods and services arising from [*an operation*]'. Outputs are usually definable and readily measurable.	**Minister for Defence, military commanders, theatre operational level commanders.** Lessons and evaluations with immediate or short-term impact to help theatre commanders assess the likelihood of achieving military outcomes.
Tactical: Rapid identification of issues and turnaround of analysis for immediate integration into practice. Most relevant to deployed force elements and the single services. May also have implications for supporting inputs.	**Inputs:** 'The financial, human, and material resources used for the [*operation*]'. Defence inputs can include materiel, deployed personnel, and logistical supplies.	**Operational command, theatre operational commanders, operational force elements, service level training organisations.** Lessons and immediate information directly from operational force elements mediated and promptly assessed, mainly by immediate superiors, for rapid adoption 'on the ground'.

Source: ANAO analysis; OECD *Glossary of Key Terms in Evaluation and Results Based Management*, 2007, pp. 24, 25, 28.

Learning lessons

1.22 The ADF sees a lesson as explicit knowledge that improves capability, doctrine, training, preparedness, planning or operations:

> Some lessons may be enduring while others will be relevant to specific circumstances. Learning lessons may therefore involve: remedial action to address a deficiency; recognition and application of a new improved practice; or modification or confirmation of equipment performance.[47]

1.23 While lessons can be learnt in a large number of ways from the consideration of almost any ADF activity, this audit focuses on the structured processes set in place by Defence to explicitly identify and record lessons arising from its operational activities.[48] These structured processes are cyclic, consisting of the four phases of information collection, information analysis, lesson identification and decision, and implementation. In 2007, the VCDF issued a Directive summarising Defence's lessons learnt process:

> [*Australian Defence Organisation*] lessons must be collected and analysed to identify appropriate action. Recommendations for action are then submitted to designated authorities within the [*Australian Defence Organisation*] where decisions are taken regarding subsequent action to address identified lessons and facilitate organisational learning. Implementing actions should then result in the first stage of learning lessons and institutional learning. Wherever possible, resolution should occur at the lowest appropriate level.[49]

1.24 Defence has sought to put in place a systematic approach to placing value on lessons, turning observations and known information into improvements to capability and preparedness, and improving the planning and conduct of operations.

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[47] Vice Chief of the Defence Force, *Australian Defence Organisation processes for collecting and applying lessons learned*, VCDF Directive 08/2007, November 2007.

[48] Defence informed the ANAO that avenues for learning lessons range from informal, self-directed methods through to formalised, structured approaches. In Defence's view, other avenues for learning lessons include the day-to-day interaction between personnel, self-directed training or group training, the structured briefs and informal learning at the handover points of the ADF posting cycle, international exchange and liaison, and the outcomes and findings of inquiries following serious incidents occurring during an operational activity.

[49] Vice Chief of the Defence Force, op. cit.

Evaluating operations

1.25 Defence's approach to operational evaluation is set out in the inaugural ADF doctrine *Operational Evaluation*, published in August 2007. The *Operational Evaluation* doctrine was developed in response to the review for the Chief of Capability Development Group (CCDG) of the ADF's processes for capturing and applying capability related-lessons learnt to the current and future capability development processes. The June 2006 report of that review concluded that:

> The ADF is yet to develop a pervasive culture of evaluation where capability and operational lessons are routinely captured and analysed. While tactical level lessons capture appears robust, insufficient staff capacity is applied to analysis and dissemination. Current practices do not adequately capture and collate all sources of potential lessons.[50]

1.26 The doctrine is intended to help redress these shortcomings by setting out a systematic framework for evaluating operations, identifying lessons and monitoring their implementation. Under the doctrine, it is possible to assess whether the aims and objectives of an activity were achieved, when measured against pre-determined standards and criteria.

1.27 As well as providing an assessment of performance, operational evaluation can also identify useful lessons that may be durable and might apply to other, future operations. Under the doctrine, ADF operational evaluation is not an end in itself: it concludes only when actions have been identified that will sustain the lesson from a given situation as part of a universal and continuous process to help ensure that mistakes of the past are not repeated. The operational evaluation model outlined by the doctrine is discussed in Chapter 3, along with the operations and exercises to which it was applied up to 2009.

Evaluating campaigns

1.28 The most recent development in the ADF's approach to assessing its involvement in operations has occurred with the formation of HQJOC and, since 2010, the initial exploration of an effects-based approach to evaluating operations and longer-term campaigns. The effects-based approach focuses on

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[50] Report to the Chief Capability Development Group, *A review of ADO Processes for Capturing and Applying Capability Related Lessons Learned,* June 2006.

Defence outcomes rather than operational outputs, analogous to outcome-focused evaluation adopted elsewhere in the public sector.

1.29 While it is still in its early days of development, the advantages offered by the effects-based approach include the opportunity to relate military operations to desired outcomes at the whole-of-government level, and the ability to incorporate the contributions from other government and non-government agencies. The approach allows for continuous analysis and assessment, and consideration of the underlying causes that lead to operational involvement, which allows the ADF to plan its withdrawal without the likely prospect of a swift redeployment. It is, however, a more complex approach to evaluation and relies on the availability of more comprehensive performance information and data.

1.30 The effects-based approach has been trialled in the United States. Consideration of outcomes and impacts is also the basis of recent developments by the AFP, who are involved in some operations alongside the ADF. These recent developments are discussed in Chapter 4, and Chapter 5 discusses the reporting of operational outcomes to the Parliament.

Audit objective and approach

1.31 The objective of the audit was to assess the effectiveness of the ADF's mechanisms for learning from operations and exercises. The audit focused on the formal lessons and evaluation mechanisms in place across the ADF. The audit extended to the manner in which information on lessons is shared within the ADF, with other relevant government agencies, and with international organisations. The audit also examined Defence's operational reporting to Parliament.

1.32 Fieldwork was conducted in Defence and also conducted with the AFP in relation to its interoperability with the ADF and the development of a performance indicators framework for AFP operations.[51]

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[51] In its report, the Committee confined its request for an audit to the ADF on the basis that the AFP had commissioned the University of Queensland to develop performance indicators. Senate Standing Committee on Foreign Affairs, Defence and Trade, *Australia's involvement in peacekeeping operations*, Canberra, 1 August 2008, p. 340.

1.33 The following high-level criteria were used for the audit:

- The ADF has adequate mechanisms in place to capture and communicate lessons from operations and exercises (operational activities).

- Lessons to be learnt from evaluations are documented by the ADF. These lessons can then inform the development or refinement of ADF doctrine and practices.

- The ADF's performance indicators are documented and are adequate for evaluating the performance of operational activities.

- The ADF undertakes evaluations of operational activities against performance indicators.

- Lessons to be learnt are shared by the ADF with other relevant agencies.

- A clear system is in place to inform the ADF's reporting to Parliament on operational progress, drawing on assessments of operational performance.

1.34 The audit was conducted in accordance with ANAO auditing standards at a cost to the ANAO of approximately $358 000.

2. Learning mechanisms in the Services

This chapter examines the organisational structures to support learning from operations and exercises used by the three Services—Army, Navy and Air Force.

Introduction

2.1   The learning mechanisms employed by the individual Services focus on the tactical level of analysis, the level at which operations are conducted. Over the last decade, these processes have undergone considerable change and development, mainly in response to the increased tempo of operations and the corresponding need to learn lessons to improve operational effectiveness and maintain a knowledge edge. The ADF's Service-level lessons agencies are set out in Table 2.1.

2.2   The last decade's expansion of lessons agencies in the ADF is similar to that experienced by its US counterparts some years earlier. Army in particular now has multiple agencies with responsibility for collecting, analysing and implementing lessons. Navy and Air Force have smaller, more concentrated lessons groups and focus on exercises.

2.3   The information that Services provide to their lessons agencies include the day-to-day observations of the personnel involved in exercises or operations, the Post-Activity and Post-Operational Reports (PARs and PORs) prepared by units after the event, and measurements of the performance of capabilities that are potential inputs to ADF operations, including from exercises. The Defence Science and Technology Organisation (DSTO) is also a source of relevant advice, and Navy have made use of DSTO's expertise.

2.4   Service-level measurement of performance against objectives and pre-determined criteria is less structured than at the higher operational level (discussed in Chapters 3 and 4), and much of the focus of the Service-level lessons agencies is on identifying and putting into practice methods of improving the effectiveness of operational tasks.

Table 2.1

ADF lessons agencies

	Lessons focus	Lessons agency & staff	Decision authority	Lessons system
Navy	**Operations**: Mainly focused on improving force projection	• Navy operational commanders, using deployed staff, as available	Fleet Headquarters	Archived on ADFAADS
	Exercises & platform testing: Tactical	• Maritime Operational Analysis Centre (MOAC): 5 ADF & 3 DSTO staff • MOAC has recently been disbanded & replaced by the Fleet Operational Knowledge Exploitation Cell: 1 ADF & 2 DSTO staff	Fleet Headquarters	MOAC: Archived on ADFAADS Fleet Operational Knowledge Management Cell: unclear
Air Force	**Exercises & operations:** Mainly focused on improving force projection	• Capability Evaluation (CAPEVAL): 2 ADF staff	Headquarters Air Command	ADFAADS
Army	**Operations:** Immediate, mainly tactical	• Deployed force staff, as available	Army operational commanders	No formal system (changes enacted immediately on the ground)
	Force preparation: Short term, mainly tactical	• Adaptive Warfare Cell— part of the Land Combat Readiness Centre in Headquarters 1st Division: 6 full time staff (3 ADF & 3 civilian) and 16 part time staff (Reservists) • Special Operations Command	Commander 1st Division Special Operations Commander	Centre for Army Lessons Management Information System (CALMIS) Special Operations database

	Lessons focus	Lessons agency & staff	Decision authority	Lessons system
	Force generation: Medium term, mainly relating to training	• Army Knowledge Management Section— part of the G7 Branch in HQ Forces Command: 3 ADF staff	Commander Forces Command	CALMIS
		• Special Operations Command	Special Operations Commander	Special Operations database
	Force modernisation: Long term, mainly relating to capability development	• Centre for Army Lessons—part of the Land Warfare Development Centre in Army Headquarters: 7 ADF & 4 civilian staff	Head Modernisation and Strategic Planning— Army	CALMIS
Joint Ops	**Operations:** Mainly focused on improving operational outputs	• J8 Evaluation & Analysis Directorate in Headquarters Joint Operations Command: 4 ADF staff [discussed in Chapter 4]	Chief Joint Operations	SharePoint

Source: ANAO analysis of Defence documentation.

Learning mechanisms in Army

2.5   Army provides the bulk of the ADF's operationally deployed units and Army's lessons process is focused on supporting units deployed in the field. Since 2000, Army has used the Centre for Army Lessons Management Information System (CALMIS) to manage its lessons. CALMIS stores and assists in the analysis of the majority of lessons identified by Army personnel, both short and long term.[52]

2.6   Army's current lessons structure derives from the 2006 Army Learning Environment (ALE) initiative. Learning lessons is intended to be central to the concept of ALE, developed in response to a directive from the then Chief of Army to enhance the way in which Army converted lessons into learning.

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[52]   CALMIS is hosted on the Defence Restricted Network with some files stored on the Defence Secret Network. Special Operations Command (SOCOMD) maintains its own lessons database on Joint Operations Command's secure network.

Endorsed by the then Chief of Army in August 2007, the goal of ALE was to provide a framework for an adaptive learning culture within Army:

> The integrated ALE is achieved when Army routinely converts lessons into learning in a relevant, effective and efficient manner. This feature is the hallmark of a genuine learning organisation.[53]

2.7 ALE is structured around 'learning loops' (see Table 2.2) aimed at meeting the needs of Army users within specified timeframes (immediate, short, medium and long). In practice, ALE is evolving alongside other reforms to Army, notably the Adaptive Army initiative announced in August 2008, a year after ALE was endorsed, and commenced in January 2009.

Table 2.2

Army learning loops, decision authorities and lessons agencies

Learning loop	Army function	Decision authority	Lessons agency
Immediate	Operations	Operational commander	Deployed force staff
Short	Force preparation	Commander 1st Division, Special Operations Commander	Adaptive Warfare Cell within HQ 1st Division
Medium	Force generation	Commander Forces Command, Special Operations Commander	Army Knowledge Management Section within HQ FORCOMD
Long	Force modernisation	Head Modernisation and Strategic Planning—Army	Centre for Army Lessons within Army HQ

Source: ANAO analysis of Defence documentation.

2.8 The Adaptive Army initiative, born of the pressures of increased operational tempo, sought to remove what Army found were excessive organisational layers that slowed decision cycles, the passage of information,

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[53] Commander Training Command – Army, *Implementation of the Army Learning Environment*, Project Directive 06/07, September 2007.

and the sharing of lessons learnt.[54] Head Modernisation and Strategic Planning—Army has overall responsibility for the Army learning loops. Those responsible for each specific loop are set out in Table 2.2. The lessons process and relevant authorities are set out in a draft Defence Instruction (Army), yet to be finalised at the time of this audit.

The immediate learning loop

2.9   The focus of the immediate learning loop is on operations—force elements that are currently deployed. The lessons processes for the immediate learning loop are rarely documented, as actions to be taken usually need to be implemented on the ground immediately, especially where they affect the safety of ADF personnel. Nonetheless, immediate lessons can flow on to other loops (particularly to the short learning loop) and the draft Defence Instruction (Army) explicitly provides for this to occur:

> Outcomes of lessons identified and implemented on operations are reported via the JTF *[Joint Task Force]* Commander to HQ JOC. HQ 1 Div *[Headquarters 1st Division]* and SOCOMD *[Special Operations Command]* maintain close liaison with HQ JOC to ensure appropriate lessons from operations are fed into the short learning loop in particular, disseminated to other lessons agencies as required and stored appropriately.

2.10   Defence informed ANAO that immediate lessons may be incorporated, as appropriate, in future changes to tactics, techniques and procedures, and may be noted in Post Operational Reports.[55]

The short learning loop

2.11   The focus of the short learning loop is on force preparation, which is the training and equipping of ADF personnel preparing to deploy on operations. The short learning loop is the main focus of activity in the current

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54   For more information on the Adaptive Army initiative, see: Australian Army, *Adaptive Army public information paper*, Department of Defence, 26 August 2008, available from <http://www.army.gov.au/docs/Adaptive_Army_Public_Info_Paper.pdf> [accessed 4 November 2010].

55   Defence provided an example of how an immediate lesson resulting in a change 'in-theatre' can be fed into the short learning loop:

- a Commander issues a directive relating to the conduct of night missions;

- deployed Special Operations force elements are immediately briefed in theatre on the directive; and

- the directive is subsequently received by Special Operations Headquarters, which then amends Mission Rehearsal Exercises accordingly.

Army lessons structure. Under the new Adaptive Army command and control structure, force preparation is the responsibility of Headquarters 1st Division (HQ1DIV)[56] and HQ1DIV's primary focus is the development of tactics, techniques and procedures for operations.

2.12 As part of Adaptive Army, the Land Combat Readiness Centre (LCRC) was established within HQ1DIV in December 2008, tasked by the Chief of Army to prepare and certify forces for deployment. The Adaptive Warfare Cell (AWC) within the LCRC is the designated lessons agency for the short learning loop, capturing and reviewing short-loop lessons from deployed personnel, so as to better prepare follow-on forces.

2.13 The LCRC has developed and begun to implement the 1st Division 'adaptation cycle' structured around the ADF's learning process (of collect, analyse, decide and implement). The adaptation cycle is a sound approach to managing short loop lessons, though the process is still bedding down and it is too early determine its effectiveness: Defence informed ANAO that the LCRC reached full operating capacity in December 2010. It will subsequently become important for Army to ensure that review and validation action is routinely undertaken for short learning loop initiatives.

The medium and long learning loops

2.14 The medium loop focus is on force generation, the process of training and equipping forces, and ensuring that readiness and preparation deadlines are met for current and potential future tasks. Force generation is the responsibility of Forces Command (FORCOMD, established in July 2009), which focuses on training and doctrine development for conventional individual and collective training. The Army Knowledge Management Section within HQ FORCOMD is the lessons agency for the medium loop.

2.15 To date, Army has yet to demonstrate the soundness of its procedures for validating the implementation of corrective measures undertaken within the medium loop. For instance, ANAO found only one case of formal action taken in response to lessons identified through this process, though Defence was yet to formally validate implemented changes.

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[56] The stated mission of HQ1DIV is to 'prepare Army force elements, as assigned by Chief of Army, in order to meet the specific operational and contingency requirements directed by Chief of Joint Operations'.

2.16 Similarly, Army's long learning loop is yet to be well established. The long learning loop focuses on force modernisation, and the development of Army capability many years into the future. Defence advised that a draft standard operating procedure on integrating lessons into force modernisation was cancelled, with its contents being incorporated into the draft Defence Instruction (Army) *Army Lessons Policy* mentioned at paragraph 2.8.

2.17 Since early 2010, the Centre for Army Lessons (CAL) has been the Army's designated lessons agency for the long learning loop.[57] The focus of CAL is on coordinating and implementing the Army lessons process, providing support across all learning loops, and becoming the designated long learning loop lessons agency. CAL has begun work on providing lessons relating to force modernisation in response to requests from different areas of Army, through what it calls 'quicklook' reports. However, there has not yet been sufficient time for CAL to exercise a significant role as the Army's designated long loop lessons agency.[58]

Evaluation processes

2.18 Army's evaluation focuses on measuring preparation for the deployment of Army capability, and on certifying forces for direct mission tasks as part of pre-deployment preparation. A principle of the Adaptive Army is to embrace evaluation and measurement:

> Evaluation and measurement forms an important part of mapping the learning that is going on in Army. It includes measurement of individual and collective competencies and how well Army is learning as an organisation. It requires the setting of clear standards, collection of information against those standards and importantly the development of a culture that embraces the opportunity to be 'measured' in order to inform learning. Individual and collective evaluation and measurement, including the setting of training standards is conducted as part of the Army Training Continuum and the Certification process for those deploying on operations.[59]

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[57] CAL resides within the Land Warfare Development Centre, within Army Headquarters. From 1999 until the implementation of Adaptive Army, CAL was the only Army agency dedicated to lessons. From early in 2010, its responsibility for short loop tactical issues was devolved to the LCRC .

[58] Other parts of Army are involved in long loop capability development. However, these processes do not generate lessons but rather purport to utilise lessons identified elsewhere as an input into planning. ANAO did not find clear evidence of the impact of lessons in the analysis and planning conducted by these other groups.

[59] Chief of Army's Senior Advisory Committee Submission 25/09, *Implementation of the Army Learning Environment Phase II*, August 2009.

2.19   Army evaluates forces both prior to deployment (to ensure that forces are prepared to undertake tasks required on deployment) and during deployment (to validate the relevance of pre-deployment preparation by sending teams in theatre during deployment). However, this approach is recent, the resulting measures of task competency are still developing, and they do not yet extend to measuring the tactical outputs of the deployed units.[60] It is not yet possible to determine the efficacy of the steps taken by Army to measure and evaluate the performance of its preparations for deployment or its deployed outputs.

Conclusion on Army learning mechanisms

2.20   Army has a sound process in place for learning immediate lessons from its operations and to take appropriate actions as a result. The implementation of the 'adaptation cycle' is a useful application of the short learning loop and, if operated as intended, provides Army with an effective structure to ensure that relevant lessons are captured and communicated.

2.21   However, the learning loop model appears less suitable for medium and long term considerations, including force generation and planning for the Army of the future. For these higher levels of analysis, a stronger framework of measurement and evaluation would provide more robust information for planners and decision-makers.

2.22   Many of Army's lessons and evaluation processes and structures across the temporal loops are new. They have not yet run over multiple cycles of force element deployments or over long term operations and campaigns, meaning that their effectiveness cannot be adequately established until this has occurred.

Learning mechanisms in Navy

2.23   In contrast to Army, Navy's lessons process focuses on exercises and not on operations. Navy's management of lessons learnt has been changing since 2005, when Navy recognised that:

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[60]   Defence advised ANAO in June 2011 that a two-person Army team was permanently established in the Middle East Area of Operations in February 2011, to undertake force preparation validation and to collect observations to inform the preparation of future deployments of Army personnel.

planning has suffered from the lack of systematic recognition and incorporation of previous lessons learnt. As a consequence, Navy has either failed to rectify previous deficiencies and repeated the same mistakes, or it has not fully capitalised on following opportunities to further develop tactics and procedures. Not only is this an inefficient use of Navy's resources but it also detracts from its effectiveness. If Navy is to 'fight smarter' there must be a system of governance for the identification, reporting, assessment, implementation, tracking and dissemination of lessons learnt.[61]

2.24 In response, Navy produced a 2005 Fleet Memorandum on managing lessons learnt and the use of ADFAADS. In its review of the processes in 2008, Navy found an improved focus on lessons collection but a continuing deficiency in lessons management. A 2008 Fleet Memorandum set out an internal Fleet Command process for managing lessons, without using ADFAADS as the main management tool. An October 2010 Fleet Memorandum commented that, Navy '[has] not done the lessons learnt process well', and noted that commitment to the process was wavering because of organisational changes.

2.25 Navy's current lessons management process is based on Navy Post Activity Reports (PARs) from units. These highlight potential lessons and courses of action, which are then reviewed by subject matter experts. A senior Navy committee determines how to take action to address the lessons identified.

2.26 In Navy's view, its lessons process is fully complementary to the Defence-wide ADFAADS database, and 'seeks to ensure that lessons are identified, reported, assessed, and effectively acted upon within the Command'. Nonetheless, Navy, like Army and HQJOC (discussed in Chapter 4), has developed its own Service-specific method for managing lessons, and primarily uses ADFAADS as a closed-lesson archive of PARs, which are the basis of Navy's lessons process. ANAO's analysis of Navy's lessons process identified that:

- issues are raised almost exclusively within a PAR, and are subject to review, recommendation and senior officer comment prior to high level decision on further action;

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[61]   Australian Fleet Memorandum 11/05, *Management of Lessons Learnt*, 15 June 2005.

- while Navy informed ANAO that many minor lessons were resolved without progressing to more formal action, there is no record of these minor issues; and

- while some older issues were progressed through ADFAADS to completion, other substantial matters raised in PARs were stored on ADFAADS, without explicitly identifying their analysis, corrective action and subsequent treatment. Lessons embodied in these PARs cannot be identified and analysed through ADFAADS.

Evaluation processes

2.27 Navy PARs include an annex highlighting the achievement of exercise objectives and comments against each objective.[62] These were available to the Maritime Operational Analysis Centre (MOAC), which was until recently Navy's support organisation for lessons and independent operational analysis.[63] Staffed by Navy and DSTO personnel, MOAC was established in November 2003 to support improvements to Navy capability through:

- supporting Navy tactical development;

- supporting planning and analysis of operations and exercises; and

- measuring and defining capability for development of the fleet-in-being and enhanced fleet.

2.28 MOAC's focus was on the analysis and evaluation of capability (platform) performance during exercises and trials. Navy could also request MOAC assistance with specified problems or exercises and trials.[64]

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[62] For instance, in the case of ASWEX09 (Anti-submarine Warfare Exercise 09—one of Navy's largest series of exercises), this table in the PAR was divided between 'core objectives' and 'specific training objectives' (objectives for each area of Navy involved in the exercise), with colour-coded achievements and comments against each.

[63] Defence's doctrine *Operational Evaluation* notes that operational evaluation and operational analysis are similar and complementary activities, although with key differences. As previously mentioned, Defence defines operational evaluation as 'the systematic approach to place value on identifying lesson and recommendations to enhance the ADF's capability and preparedness'. Operational analysis is defined as 'the use of mathematical, statistical and other forms of analysis to explore situations and help decision makers to resolve problems. Facts and probabilities are processed into manageable patterns relevant to the likely consequences of alternative courses of action'. The Defence Science and Technology Organisation (DSTO) is the ADF's source for operational analysis.

[64] For the ASWEX09 exercise, MOAC provided an objective analysis of selected parts of anti-submarine warfare capability through various measures of performance, measures of effectiveness and critical operational issues (defined as issues that must be examined to assess a system's capability to perform its mission); assessing the effectiveness of a potentially important operational input. Commodore Flotillas was subsequently brief on the progress of following up lessons identified in the exercise.

2.29 By 2008, MOAC had also begun to conduct evaluations of the effectiveness of Naval platforms, developing measures of effectiveness[65] and measures of performance based on operational preparedness requirements set by Joint Operations Command (which outlines the tasks and roles of each Service). This approach was prompted, in part, by a December 2007 MOAC report on naval operational analysis, which found that:

> current capability measurement efforts are fragmented and most do not provide data needed to support capability measurement decisions … An overhaul of the measurement program is required if there is a desire to provide the right objective data to support capability management.

2.30 Navy informed the ANAO in April 2010 that the Measures Of Effectiveness (MOE) standardisation project, which followed the December 2007 MOAC report, was continuing to develop standardised MOEs across Naval warfare disciplines.[66] However, the recent dissolution of MOAC means that the current responsibility for evaluation and for the standardisation project is unclear.

Conclusion on Navy learning mechanisms

2.31 Navy's intended approach to lessons is basically sound and provides for high-level involvement of Navy personnel and the opportunity for reflection on issues across activities. However, Navy's focus remains on exercises rather than on operations and does not effectively provide for the quick turnaround of immediate lessons.

2.32 In practice, Navy's Fleet Headquarters' processes for the capture and resolution of those lessons have been less than optimal, resulting in:

> a failure to rectify identified deficiencies, re-occurrence of avoidable mistakes, and lost opportunities to improve tactics and procedures. Ongoing efforts to improve Fleet operational standards, particularly during a sustained period of high operational tempo, require improved procedures for the management of lessons learnt.[67]

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[65] Navy define a measure of effectiveness as 'a quantitative measure of how well a system meets its objectives or equivalently performs its designated function'.

[66] The Navy's warfare disciplines are: air warfare, electronic warfare, surface warfare, undersea warfare—which includes mine warfare—amphibious warfare and information warfare.

[67] Australian Fleet Memorandum 55/08, *Lessons Learnt / ADFAADS Management in Fleet Command*, 14 November 2008.

2.33   Navy informed ANAO in December 2010 that it had begun to restructure its lessons processes by updating its governing lessons memorandum, establishing the Fleet Operational Knowledge Exploitation Cell lessons team (which replaced MOAC) within Fleet Command, and managing lessons through Headquarters Joint Operational Command's SharePoint system.[68] The impact of this change remains unclear.

2.34   Navy focuses its evaluation on the technical performance of its platforms. MOAC had designed a structured approach to assessing performance against pre-determined measures and criteria, albeit for exercises and trials rather than operations. The recent dissolution of MOAC has resulted in a significant gap in Navy's capacity to evaluate platforms. These recent developments are likely to impede Navy's evaluation efforts, unless another Navy agency is allocated responsibility, with appropriate resources to take on this task. Defence advised ANAO in June 2011 that a limited exercise analysis and evaluation capability is being maintained through two former MOAC staff members.

Learning mechanisms in Air Force

2.35   Similar to Navy, Air Force's involvement in ADF operations is primarily as an enabler of land forces, through platform-based activities. Air Force's lessons process also focuses on exercises and not on Air Force contribution to operations. The Air Force's designated lessons learnt agency is the Capability Evaluation section (CAPEVAL) within Headquarters Air Command (HQAC).[69] CAPEVAL was formed in January 2007 to help overcome identified deficiencies:

> Historically, evaluation of Air Force Capability has not been conducted in a systematic manner, resulting in inadequate responsiveness to capability shortfalls and lessons learnt during operations and exercises.[70]

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[68]   Defence advised ANAO in December 2010 that MOAC was replaced by the Fleet Centre for Lessons Learnt (a two-person team), however in June 2011 Defence advised that the this team is now known as the Fleet Operational Knowledge Exploitation Cell (a three person team).

[69]   Headquarters Air Command coordinates Air Force operations and is also responsible for developing and delivering the capability to command and control air operations. Headquarters staff assist the Air Commander Australia to control the activities of the six subordinate Force Element Groups (Air Combat Group, Air Lift Group, Aerospace Operational Support Group, Combat Support Group, Surveillance and Response Group, and Air Force Training Group). <http://www.raaf.gov.au/structure/aircommand.aspx> [accessed 7 July 2010].

[70]   Deputy Director Capability Evaluation, *Dot-point brief for Chief of Staff: Capability Evaluation Schedule Proposal*, 31 August 2007.

2.36 CAPEVAL comprises two staff whose mission is 'to systematically and objectively assess the effectiveness and efficiency of Air Force activities to identify lessons that will contribute to capability management and development'. Its two key responsibilities are to manage and assist Air Force's use of ADFAADS, and to conduct operational evaluation of Air Force exercises, including joint exercises.

2.37 Assisting Air Force units with ADFAADS has formed the bulk of CAPEVAL's work since its inception. Improved use of ADFAADS by Air Force and other Services would allow CAPEVAL to provide a lessons analysis service for input to exercise planning processes. However, with only two staff, CAPEVAL would not have sufficient capacity to undertake (for instance) trend analysis of Air Force lessons, or deep analysis of common issues identified across different Air Force activities.

2.38 HQAC's intended scope for Air Force evaluation by CAPEVAL extends to all Air Force activities, with a focus on specific Australian Joint Essential Tasks (ASJETS—see Chapter 3) and Fundamental Inputs to Capability.[71] However, the limited resourcing of Air Force's lessons processes restrict its ability to measure the performance of capability in exercises and operations.[72] In practice, Air Force emphasises self-evaluation (by exercise participants) over external evaluation. CAPEVAL has offered its assistance to develop evaluation processes and skills so that evaluation of current operations can be conducted effectively and, in December 2009, proposed that operational evaluation plans become a routine component of every Air Force exercise:

> the evaluation plan needs to be a formal component of the planning process, sponsored by the Officer Commanding the Exercise (OCE). Evaluation objectives should be agreed and approved by the OCE, and structured after consideration of overall exercise objectives, previous identified lessons, identified [*capability*] deficiencies and other elements the OCE may wish to include.[73]

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[71] Fundamental Inputs to Capability (FIC) are the eight component personnel, equipment and support systems that are required for Defence to generate capability. Major systems (such as submarines, armoured personnel carriers) are the core components of capability. The other FIC are: organisation; personnel; collective training; supplies; facilities; support; and command and management.

[72] The Air Force Standing Instruction *Evaluation and Reporting* defines evaluation as 'the measurement of performance under known conditions against pre-determined standards, and employing pre-determined measures'.

[73] Deputy Director Capability Evaluation, *Review of Headquarters Air Command Operational Evaluation*, December 2009.

2.39 However, this proposal was not implemented, formal evaluation plans were not mandated and CAPEVAL external evaluation has been limited. Air Force does not measure the performance of its exercises and contributions to operations and, while CAPEVAL has proposed more extensive programs of evaluation, these have not come to fruition. Since its inception CAPEVAL has conducted limited evaluations of five exercises (two joint) involving Air Force and only very limited evaluation of Air Force participation in operations.

Conclusion on Air Force learning mechanisms

2.40 Of the three Services, Air Force has the least developed approach to lessons and evaluation. Similarly to Navy, there is currently no systematic capture of lessons in the Air Force environment, which also lacks Navy's structured involvement of senior personnel.

2.41 CAPEVAL is the only lessons agency that continues to adhere to the 2001 Defence Instruction (General) OPS 41-1 *Australian Defence Force Activity Analysis Database System*, reinforced in 2007 by the Vice Chief of the Defence Force, which mandates the use of ADFAADS for managing lessons and evaluation (see paragraphs 3.21 and 3.32). However, the utility of ADFAADS as the centre of the ADF's lessons system is diminishing as both the other Services, and the joint level of ADF activity, turn toward other solutions to meet their lessons needs.

2.42 Air Force evaluations focus on the planning and management of exercises, rather than on operations. Air Force does not undertake structured evaluations in order to inform the performance of tactical inputs. There is no evidence it takes a structured approach to measuring the performance of exercises or contributions to operations against pre-determined conditions and measures.[74]

2.43 Air Force's lessons and evaluation processes lack senior level direction on the optimal use of the limited resources devoted to this function. A reliance on self-evaluation cannot adequately provide the means to reflectively assess

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[74] For example, Air Force's recent evaluation of Exercise Pitch Black 2010 was focused on the management of the exercise itself rather than on performance and tactical lessons. The Exercise Pitch Black 2010 lessons report stated that all objectives of the exercise were met, however the report contains no discussion of objectives or how this conclusion was arrived at. One objective that is mentioned as being met is international engagement, however the report does note that there were relatively few participants, as US and Malaysian participants withdrew from the exercise toward the final planning stages.

and analyse findings, or place those findings within the broader context of ADF activities.

Conclusion on Service-level learning mechanisms

2.44   Many areas of the ADF have made significant changes in recent years in order to improve their lessons processes. Of the Services, Army has the most developed lessons systems, encompassing immediate and short term lessons from operations, along with dedicated databases and portals in the form of CALMIS and the recently developed 'iArmy' (a web portal for accessing Army learning—see paragraph 3.40). Army's development and application of immediate and short learning loops appears to be a functional and appropriate response to the immediate needs of personnel deployed on operations and exercises.

2.45   By contrast, systems for identifying and recording immediate and short term lessons are not as well developed in Navy and Air Force.[75] It has only been comparatively recently that Navy and Air Force have begun to develop Service-level approaches to managing lessons. At this time, neither Service has in place formal mechanisms for capturing lessons applicable over short time-frames. Rather, the approach of both these Services is to focus on correcting issues identified during exercises.

2.46   ANAO acknowledges that many of these changes are comparatively recent and that, as a consequence, analysis and reporting are in their infancy. However, there has been a lack of coordination as each Service has altered its approach over recent years and the result is a fragmented lessons environment. Coordination and information-sharing are rudimentary and the effectiveness of the new approaches has yet to be assessed by the ADF:

- there is not yet evidence that the Services are employing effective methods to ensure learning loops are closed through monitoring and observation of corrected practice;

- there has been little reporting on the validation of lessons and/or assessment of the degree to which lessons have been put into practice;

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[75]   Navy advised ANAO that it is working toward introducing a short-term learning loop and using HQJOC's SharePoint processes.

- each Service has developed its own information systems for managing their lessons processes;[76] and

- there is very little interaction between the Service lessons agencies and few opportunities to identify lessons that are relevant beyond an individual Service.

2.47 While there is less need to share Service-specific lessons across the Services, it is not yet clear how joint tactical lessons are to be identified and shared: HQJOC is still developing an approach to assessing exercises and the potential involvement of Service level lessons agencies. Additionally, it has been only recently that elements of the ADF have begun to place a high priority on identifying and learning lessons from operations.

2.48 While it is vitally important to identify and learn lessons, this activity has been focused on at the expense of appropriate recognition of the importance of evaluation at the Service level. In particular, no Service has a dedicated mechanism for assessing the performance of its force elements deployed on operations.[77] When they have attempted to do so, Services have focused on the identification and collection of lessons and not on evaluating performance. The Services are yet to systematically set out intended objectives and the pre-determined criteria against which performance on operations or exercises can be measured:

- Army has used pre-determined criteria, focused on improving the pre-deployment training and the preparation of troops, but not in order to evaluate its performance on operations;

- the performance measurements made by Army and Navy have focused on tactical-level inputs rather than on their contribution to the operation or exercise;[78] and

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[76] Air Force is the only area of Defence that continues to use ADFAADS in the manner intended under Defence Instruction (General) OPS 41-1: Army has used ADFAADS rarely over time, Navy have been using it as an 'archive' of fully resolved issues (with management of issue resolutions handled internally in Fleet Command), and Joint Operations Command has moved to using a SharePoint lessons system (see paragraph 3.40). Army advised ANAO that they consider 'resolution based' lessons learnt models, like ADFAADS, as no longer suitable.

[77] Army's 1st Division may use deployed teams in operational theatres to collect short loop lessons and validate pre-deployment training requirements, however this does not extend to assessing the performance of the Army units deployed.

[78] Army has assessed performance against required tasks for operations, and Navy the performance of its platforms in trials and exercises, although these do not necessarily align with upcoming deployments.

- Air Force does not currently use a structured approach to evaluate the performance of its platforms or its contributions to operations or exercises.

2.49   These shortcomings could be addressed by the application of consistent and coordinated lessons processes (incorporating the collection, implementation, validation and sharing of lessons), and methods for measuring performance at the Service level. The UK Defence Lessons Identified Management System (DLIMS) is one information technology solution designed for this purpose, providing 'a common process for lessons' that allows the creation of individual secure environments where necessary (see also paragraphs 1.15 and 3.41).

2.50   Defence informed ANAO in June 2011 that all performance evaluations relating to operational matters is the responsibility of HQJOC. VCDF has given responsibility to Joint Capability Coordination Division to coordinate joint lessons and evaluation across Defence. The Division is establishing a Joint Lessons and Evaluation Working Group, and is considering the development of a future information technology lessons system, focused on learning lessons, rather than evaluating performance (evaluation of performance is addressed at Recommendation 5—see paragraph 5.25).

Recommendation No.1

2.51   ANAO recommends that, to improve their ability to learn from operations and exercises, the Services put in place consistent methods for identifying, analysing, implementing and validating lessons, and ensure that relevant lessons can be effectively shared across Services.

Defence response

2.52   Agreed. This work is in progress under the leadership of the Vice Chief of the Defence Force through the Joint Capability Coordination Division.

3. Collecting, recording and analysing lessons from ADF operational activities

This chapter examines operational evaluation—the ADF's method for collecting and recording lessons and evaluating the performance of their operational activities—and the ADF-wide computer system for recording operational lessons, outcomes and evaluations.

Introduction

3.1 The ADF's *Operational Evaluation* doctrine was released in August 2007. Prior ADF doctrines had included some elements of operational evaluation, but *Operational Evaluation* is the ADF's first attempt to draw together in one document a framework for the conduct of operational evaluation, including key guidance for Commanders, practitioners, and planners. The development of this doctrine was an initiative designed to improve Defence's approach to learning from operations.

3.2 ADF operational evaluation assesses the efficiency and effectiveness of operations and exercises. It is a way of identifying lessons and learning from the successes and the mistakes of the past, so as to improve capability and prepare the ADF to meet future operational demands. Operational evaluation also involves measuring performance against pre-determined criteria using:

> objective and/or qualified subjective assessments [*to*] establish the effectiveness and efficiency of [*operational evaluation*] subjects and the ADF …

> [*The*] identification and learning of lessons, and the taking of necessary remedial action, is central.[79]

3.3 For the ADF, operational evaluation is only finalised when actions have been identified that will help ensure that mistakes of the past are not repeated, and a key aim is:

> to overcome the criticism that the same lesson seems to be repeatedly re-learnt. The persistence with which this criticism is made is perhaps one of the more obvious indicators of the status of the ADF as a learning organisation and the degree of acceptance of an operational evaluation culture.

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[79] In this context, qualified subjective assessments are those made by suitably qualified individuals, such as subject matter experts, using professional military judgement.

3.4 This chapter examines the operational evaluations undertaken by the ADF and how these were analysed and recorded on the ADF-wide computer system—the Australian Defence Force Activity Analysis Database System (ADFAADS)—developed to record the outcomes and evaluations of operations, including lessons learnt.

ADF operational evaluation doctrine

3.5 The intended scope of the ADF's operational evaluation doctrine is broad, covering activities of joint and single-Service force elements, all Defence elements that support operations and preparedness, and all levels of command. It is to be:

> conducted at the strategic, operational and tactical levels of command across single-Service, joint, multinational and multi agency arenas. The [*operational evaluation*] principles and processes can be applied to any level or scale of activity, and should not be constrained by time, location or situation.[80]

3.6 The doctrine is supported by the Australian Joint Essential Tasks (ASJETs), created in 2003 by DSTO to provide a more objective basis of assessment than relying solely upon:

> subject matter experts, who looked for strengths and weaknesses in whatever exercise was being conducted at the time and made subjective judgements without relying upon predetermined conditions and standards.[81]

3.7 ASJETs are defined as those tasks that are essential for preparing, planning and conducting operations, and offer a useful basis on which to directly assess operational capability. The level of operational capability achieved is determined by the force structure employed and their state of preparedness (which, in turn, is achieved through collective training and other inputs to capability).[82] Operations are the outcome of the effective combination of all the requisite inputs to capability, and warrant the highest priority for evaluation:

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[80] Australian Defence Headquarters, *Australian Defence Doctrine Publication 00.4—Operational Evaluation*, August 2007.

[81] DSTO, *Joint Warfare Capability Assessment - Final Report: Australian Joint Essential Tasks Volume 1*, June 2003.

[82] ANAO Audit Report No. 43 2009–10 *Army Individual Readiness Notice*, p. 30, Figure 1.1.

Operations provide special opportunities to gather knowledge because they are not constrained, structured or scripted in the manner of most collective training activities. [*Evaluation*] of operations is planned as part of the normal operational planning process, and [*operational evaluation*] should commence as early as possible in the life of an operation. Operations may need to be [*supported*] by a rapid learning loop that identifies, analyses and resolves issues rapidly.[83]

3.8   Evaluations of collective training, including exercises, are next in order of importance. These confirm that units are achieving their directed level of capability, which the ADF defines as the ongoing capability readiness needed in order to work up to an operational level of capability within a set period of time.

3.9   Under the doctrine, operational evaluation is a command responsibility, driven by command accountability and responsibility for capability outputs. Commanders are in all respects accountable for operational evaluation:

- VCDF and Chief Joint Operations (CJOPS) share responsibility for operational evaluation above the Service level;

- VCDF is responsible for developing and reviewing operational evaluation policy and managing the operational evaluation database;

- CJOPS has the overall responsibility for authorising operational evaluation activities for operations and exercises;

- the officer scheduling an exercise is responsible for the operational evaluation of the collective training; and

- operational evaluation staff have an ongoing responsibility to track the progress of their recommendations to ensure they are implemented in the way that was intended.

3.10   The ANAO examined the ADF's *Operational Evaluation* doctrine, which provides guidance for its practical application and sets out the responsibilities and activities involved. In the ANAO's view, the doctrine provides a clear and flexible guide for the ADF to learn lessons and assess performance, which can be applied at all levels, by a range of ADF personnel, and can target different

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[83]   Australian Defence Headquarters, op. cit.

types of operational activities. It is applicable to any level of consideration outlined in Table 1.1.

3.11   The ADF's application of the doctrine would be assisted by providing Commanders with assistance in determining the costs and benefits of evaluation, how to balance the cost of the resources required to conduct the evaluation and follow through on the findings, against the benefits of identifying lessons and assessing and reporting on performance. Useful guidance could:

•   prioritise the evaluation of operations over evaluations of most exercises, collective training, and other ADF activities;

•   emphasise measuring performance against pre-determined conditions;

•   assist evaluators to rank, in order of importance, the findings they make and the issues they identify from the results of their evaluation; and

•   include a pro-forma method for estimating the resources and time required to resolve or treat the issues identified that may require a remedy.

Operational assessment of major operations and exercises

3.12   Defence informed ANAO that the evaluation of its operations is a long-standing practice pre-dating the development of its inaugural *Operational Evaluation* doctrine. For instance, between 2000 and July 2009, operational evaluation teams led by the Australian Defence Force Warfare Centre (ADFWC) evaluated five operations and seven joint or combined exercises, as listed in Table 3.1. Over that time, Defence informed ANAO that there had been some 117 different operations and approximately 1300 joint exercises. Until 2010, the ADFWC was responsible for evaluation of operations and large joint exercises. In 2010 this responsibility was transferred to HQJOC (see Chapter 4).

3.13   Where ADFWC teams were not deployed, operations and exercises could be evaluated by ADF participants using ADFAADS, though it was acknowledged that this was a less robust and insightful procedure (ADFAADS is discussed from paragraph 3.20).

Table 3.1

ADFWC evaluations of operational activities

Operations	Exercises
Warden (2000—East Timor) Tanager (2000—East Timor) Anode (2004—Solomon Islands) Astute (2006—Timor-Leste) Catalyst (2007—Iraq)	Talisman Saber (2005) Pirap Jabiru (2006) Talisman Saber (2007) Mercury (2008) Vital Prospect (2008) Cobb Ring (2008) Talisman Saber (2009)

Source: ANAO analysis of Defence documentation.

3.14   Seven of the 12 ADFWC evaluations conducted were of exercises rather than operations. Exercises are important opportunities to assess the preparedness of ADF capability, particularly exercises that test capability in combined operations of the kind that might be used in general war and high-intensity warfighting. However, the evaluation of current operations is, arguably, of comparable importance to the evaluation of combined exercises and thus deserving of a substantial part of the ADF's evaluation effort and resources. Nonetheless, the ADFWC had difficulties in securing personnel, undertaking pre-deployment preparation and ensuring access to operations. For instance, in 2007 the ADFWC team had difficulty getting appropriate personnel to help evaluate an operation:

> some identified [*subject matter experts*] could not be released [*to help evaluate this operation*] due to higher priority activities such as lead-up preparations for [*a forthcoming combined exercise*].[84]

3.15   In the course of the 12 evaluations undertaken, the ADFWC teams interviewed key operational personnel, examined planning documentation and (where possible) undertook observations in the field. The primary focus was on collecting lessons (rather than measuring activity performance) and gaining a theatre-wide perspective on the planning and conduct of

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[84]   ADFWC theatre evaluation team report on Operation Catalyst.

operations.[85] Most of the lessons from these evaluations were tactical, though two strategic issues were identified: a lack of guidance and coordination with other government agencies for two operations and, for another operation, strategic guidance that responded too slowly to changes in the operational environment.[86]

The use of ASJETs in operational evaluation

3.16 The intended criteria for evaluation are the standardised ASJETs describing the main tasks involved in the lead up to, and the planning, preparation, and conduct of the operations.[87] ASJETs can be recorded in ADFAADS, and measurement against standardised ASJETs enables, for instance, comparative evaluation of performance across operations and exercises.[88]

3.17 However, while ASJETs have been used to help plan operations and exercises, they have not been used for evaluation to the extent, or with the rigour, originally expected:

- None of the evaluations of the operations listed in Table 3.1 used ASJETs as the basis for assessing performance.[89]

- Four of the seven exercises listed in Table 3.1 measured performance against selected ASJETs using pre-determined conditions, standards and measures. However, the judgements of the achievement or otherwise of the ASJETs were based on scant supporting evidence.

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[85] For Operation Catalyst, the evaluation team was limited to examining intelligence, surveillance and reconnaissance issues.

[86] The recently implemented effects-based approach to campaign assessments provides a framework to overcome these strategic-level problems (see from paragraph 4.44).

[87] ASJETs are the essential context for evaluating the ADF's Program of Major Service Activities, including operations and exercises. The ANAO has previously examined ASJETs as part of a 2003–04 audit on Defence's preparedness management system, at which time the future use of ASJETs was uncertain. Defence agreed to the ANAO recommendation that Defence develop the use of Australian Joint Essential Tasks in the Preparedness Management System. ANAO Audit Report No. 43 2003–04 *Defence Force Preparedness Management Systems*, pp. 38-39.

[88] ASJETs list tasks across the inputs/outputs level. ASJETs relate to set *conditions*, *standards* and *measures* that assist evaluation. In the ASJETs lexicon, *conditions* are variables of the environment that affect performance of tasks. *Standards* consist of two parameters: *measure* and *criterion*. They are intended to express the degree to which a joint force must perform an ASJET under specified conditions and are part of the immediate situation or mission context in which a task must be performed. Measures are directly related to tasks: they provide 'the basis for describing varying levels of task performance'; and 'a criterion defines what is an acceptable level of performance'.

[89] The evaluations of Operations Warden and Tanager occurred prior to the development of ASJETs.

- In the case of the other three exercises, ASJETs were cited only in planning and related documents. The statements in these exercises' Post-Activity Reports—that exercise objectives had been achieved— were made without the benefit of evidence demonstrating achievement of the relevant ASJETs.

- Wider examination of ADFAADS data shows that ASJETs are rarely cited, especially in relation to mission evaluation objectives, and that (more broadly) no evaluating material or mission outcome data is entered against ASJETs.[90]

3.18 As yet, there is little evidence that ASJETs have been adopted for evaluating and reporting operational performance, and it is unclear whether the ADF intend using ASJETs in the future. There is no evidence that recent operations and exercises have used ASJETs to define the tasks to be conducted. The ADF's 2009 doctrine for planning campaigns, operations and exercises, the *Joint Military Appreciation Process*, does not refer to ASJETs. These findings are congruent with Defence's recent observation that the ASJETs evaluation process is not yet fully implemented.[91] At the time of this audit, HQJOC J5 cell was responsible for ASJETs, though HQJOC's framework for planning and evaluating operations and exercises, which is still a work in progress, does not include the use of ASJETs.

3.19 When asked about the continuing relevance and future of ASJETs, Defence advised ANAO in June 2011 that:

> It is widely accepted across HQJOC and the broader ADF that ASJETS do not feature as part of the Operational Planning Process … In the work that is being done to redevelop the CDF preparedness directive, effects rather than tasks are the focus.

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[90] In this respect, the ADF experience is similar to that of international counterparts, of whom it has been observed that they 'commonly use performance measurement and performance management within their planning and implementation activities and are only recently turning to assessments, monitoring, and overall evaluations of their activities.' Meharg, SJ, *Measuring What Matters in Peace Operations and Crisis Management*, School of Policy Studies, Canada, 2009, p. 73.

[91] The ASJETs are held on a Lotus Notes database accessed through the ADF Activity Management System (ADFAMS) and ADFAADS, neither of which have been well maintained; see the following section for a detailed discussion of ADFAADS.

Recording and analysing operational evaluation outcomes

3.20 Defence's *Operational Evaluation* doctrine mandates ADFAADS as the core of the ADF's operational evaluation system. ADFAADS was developed in 1998 by the ADFWC after the then Chief of the Defence Force (CDF) directed that a system be created to capture issues arising from exercises and operations, and document the actions taken to resolve problems. The aim was that ADFAADS would become a repository of the knowledge from past operational activities and that the discipline of recording and entering data into ADFAADS would bring a more consistent structure to the long-standing system of Post-Activity and Post-Operational Reports (PARs and PORs).

3.21 Defence Instruction (General) OPS 41-1 *Australian Defence Force Activity Analysis Database System* was issued in October 2001 by the then Secretary of Defence and the CDF under Section 9A of the *Defence Act 1903*. The instruction established ADFAADS as the mandated system for capturing lessons from ADF activities and for progressing action to resolve identified lessons:

> ADFAADS provides the technology to migrate traditional ADF lessons learnt culture to the electronic age so that the ADF at large becomes a learning organisation. ADF personnel can use ADFAADS to 'close the learning loop' through ready access to a single common database to study the mistakes of the past; apply the knowledge thereby gained to their current activity; resolve any problems; and finally learn more advanced lessons to pass on to their successors. Given the competitive environment in which it operates, the ADF cannot afford to re-learn the same lessons over and over again. It is therefore the responsibility of all personnel to capitalise on the vast ADF knowledge base by utilising ADFAADS as a knowledge resource …
>
> Ultimately the ADFAADS process promotes the ADF as a learning organisation, ensures lessons are learned across the ADF and contributes to the maintenance of the 'knowledge edge'.[92]

3.22 ADFAADS was managed by the ADFWC until it was disbanded in 2009. The responsibility for ADFAADS was transferred away from the HQJOC area that took responsibility for conducting operational evaluation, previously undertaken by the ADFWC. HQJOC advised the ANAO that:

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[92] Department of Defence, *Defence Instruction (General) OPS 41–1: Australian Defence Force Activity Analysis Database System*, 16 October 2001. Defence advised ANAO in June 2011 that steps are being taken to seek approval to have this Instruction cancelled.

JOC has no remit to take any ADF-wide responsibilities, it is merely an organisation that plans and executes operations, exercises or other activities using units and people who are force assigned for specific and discrete periods. HQJOC has never had the resourcing to assume any responsibility for managing ADFAADS on an ADF-wide basis. Indeed, there was no intent to reassign positions or funding out of the old ADFWC to enable that function, even as a stopgap while VCDF group stood up their Lessons cell.

Key features of ADFAADS

3.23　ADFAADS is a Lotus Notes database resident on the Defence Secret Network (DSN). Each ADF activity or operation entered onto ADFAADS has its own page on which users can record the issues identified, propose how they can be resolved, allocate responsibility to personnel for acting on proposed resolutions, and monitor progress toward resolution. In particular, Commanders are required to enter their PAR or POR into ADFAADS.

3.24　ANAO examined the structure and design of ADFAADS and found that it conforms to that of *incident-management systems*, such as those used to manage workflows in call centres and at IT helpdesks. Industry best-practice for such systems is set out in the IT Infrastructure Library (ITIL®). The assignment of categories and priorities to incidents (or, in the case of ADFAADS, issues raised as a result of operations and exercises) is a key feature of effective incident-management systems. Effective management of an issue involves, at a minimum, four steps:

- categorising the issue;

- establishing a level of priority;

- allocating resources; and

- monitoring its status and resolution.

3.25　Industry best-practice is to apply a defined set of categories and keywords for entering issues into such systems. This helps system managers to assess whether an incident is able to be addressed, to quickly identify the unusual, urgent or important issues to be escalated for rapid attention, and to know if the issue has also been notified by other parties. This approach also promotes consistent administrative processes, so that similar issues receive similar treatment.

3.26 Once incidents (or issues) have been allocated to a category and assigned a priority, managers can then assign a unique identifier for tracking purposes, check that all necessary or useful information has been recorded, forward the matter for resolution, and notify other users that may be affected.

3.27 Over time, applying consistent categories and priorities helps managers and evaluators to efficiently analyse their records to track lessons and trends, and identify underlying causes that may require more focused or concerted attention. Properly designed and well-run incident-management systems can provide critical raw data for identifying and analysing possible trends and likely causes of recurrent issues. They are not, however, well-suited to the tasks of data analysis or data-mining, which are usually carried out using other purpose-built data-analysis tools and systems.

Application of ITIL® incident-management principles in ADFAADS

3.28 While ADFAADS' design encompassed the basic features of an incident-management system, in practice these features were not well-adhered to by users, were not able to be enforced by system managers, or were of limited use in the form in which they were implemented:

- While ADFAADS provided options and suggestions for categorising issues by type, importance and status of resolution,[93] these suggestions were not consistently applied by users.

- A lack of keyword functionality meant that searches of ADFAADS data typically returned large amounts of poorly differentiated information of little use to system managers or evaluators.

- Some ADFAADS business rules undermined the accurate sorting or search of entries, as when the priority assigned to an issue is automatically pre-filled as 'normal' without a mandatory requirement for alteration or confirmation by the user.

- Users frequently entered minimal or cursory free-text to describe the resolution of long-standing issues, thus effectively closing them as 'resolved' without clear evidence of an effective resolution.

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[93] Based on Defence's Fundamental Inputs to Capability (FIC), which are eight categories of personnel, equipment and support systems required for Defence to generate a 'capability'.

- The assignment of staff to an ADFAADS issue goes only as far as nominating the staff member who appears to be best-placed to resolve the issue. Where assigned staff had neither the authority nor the knowledge to resolve the issue, or were provided with inadequate analysis, it was common for issues to be either sent on blindly or noted as 'resolved' to clear them off ADFAADS, even though they remain unresolved.[94]

- The lack of recorded details of functional responsibility for over 20 per cent of staff who might potentially be assigned issues for resolution compounded the difficulty of directing issues to appropriate decision-makers.

- AFAADS cannot test whether assigned staff are actually available to resolve an issue. Issues were marked 'complete' even though no action had been taken because there were no available staff resources.

3.29 The categorisation, classification and resource allocation arrangements for ADFAADS have suffered from incomplete or partial implementation, when compared to best practice. This has detracted from its usefulness as a tool for monitoring and evaluating the issues raised and lessons learnt. The difficulty of searching the database impairs ADFAADS's usefulness as a source of data to analyse trends and to identify problems.[95]

3.30 The ADFAADS categorisation schema does not assign a hierarchy to analysis. In practice, this means that it is difficult for managers and analysts to readily differentiate tactical level issues arising from exercises from other, and possibly more urgent and important, matters arising from operations. It is desirable that Defence focus its resources on addressing and resolving the more important issues with a high-level operational impact. However, neither the functionality nor use of ADFAADS by users thus far allows such a distinction.

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[94] This issue was also noted in the 2006 report to the Chief Capability Development Group: *A review of ADO Processes for Capturing and Applying Capability Related Lessons Learned*.

[95] In the incident management vernacular, a problem is the undiagnosed underlying cause of one or more incidents: 'a problem is a condition often identified as a result of multiple incidents that exhibit common symptoms. Problems can also be identified from a single significant incident, indicative of a single error, for which the cause is unknown, but for which the impact is significant'.

The use of ADFAADS across the ADF

3.31 The 2006 review into the ADF's lessons processes, conducted for the Chief of Capability Development Group, concluded that 'the ADF is yet to develop a pervasive culture of evaluation where capability and operational lessons are routinely captured and analysed' (see also paragraph 1.25).[96] The report identified a range of deficiencies preventing the ADF more effectively learning from its experiences on operations and exercises. Key findings were that:

- directives and guidance on how to learn and record lessons were inconsistent across the ADF and there were no sanctions for non-compliance;

- while ADFAADS had features that were best-practice, it was not well-supported by policy, or by guidance and direction for staff required to use the system;

- the high rate of movement of ADF staff meant that many were attempting to use ADFAADS with little support and training;

- users were hindered by the technical and access limitations of the DSN, which particularly affected Army;

- there was a lack of ADFAADS support staff; and

- a 'cultural bias' had developed against the system, mainly because it was not perceived as 'user-friendly'.

3.32 The Chiefs of Service Committee (COSC) endorsed the review's 14 recommendations for improving the ADF's lessons processes.[97] VCDF subsequently issued a directive in November 2007 reinforcing ADFAADS as the mandated lessons capture tool across Defence. In 2007, Defence informed the Standing Committee on Foreign Affairs, Defence and Trade that it:

> uses a Defence-wide evaluation system for the capture and dissemination of issues and lessons learnt, and provides the staffing mechanism and audit trail to apply resources to resolve identified problems. The ADF Activity Analysis

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[96] 2006 report to the Chief Capability Development Group, op. cit.

[97] COSC is an advisory body to the Chief of the Defence Force (CDF), which provides military advice to assist CDF in commanding the ADF and providing military advice to government. Membership of COSC includes CDF (Chairman), the Secretary of Defence, the Service Chiefs, Vice Chief of the Defence Force (VCDF) and Chief Joint Operations (see paragraph 5.17 for more detail on COSC).

Database System covers all ADF operations and major exercises and has been in operation for the last decade.[98]

3.33 However, at the time of this audit, ANAO confirmed that issues identified in the 2006 review (included those mentioned above) were still awaiting resolution. Important among these were:

- Continuing problems with access to the database, particularly for Army, which has more ready access to the Defence Restricted Network (DRN) than to the DSN and ADFAADS. A portable version of ADFAADS was designed to be used outside of the DSN, but it is not in wide use.

- Limited usefulness to users wishing to search the database, such as staff planning operations and exercises. The limits arise both from technical limitations and the manner in which the system has been used and data recorded.

- ADFAADS is not linked to other ADF databases that are used as repositories for lessons capture and analysis, such as the Centre for Army Lessons Management Information System (CALMIS), so that ADF officers may have to conduct multiple database searches to obtain all relevant information on lessons from those past activities.

ADFAADS recorded outcomes

3.34 In the light of these findings, it is not surprising that the available data, shown in Figure 3.1 and Figure 3.2, illustrate that the use of ADFFADS has fluctuated and has generally declined over time, notwithstanding the 2007 VCDF directive. Between 2005 and 2010, joint agencies (mainly the ADFWC) were the main users of ADFAADS, Navy and Air Force were moderate users and Army were minor users of ADFAADS. HQJOC had not entered data into ADFAADS since December 2009. Figure 3.2 shows that since 2008 in particular, the rate at which proposed resolutions to issues were completed has flattened out: even though fewer issues are being entered into the system, proportionally less are recorded as being resolved.

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98 Senate Standing Committee on Foreign Affairs, Defence and Trade, *Responses to questions taken on notice from the Department of Defence*, Canberra, 24 July 2007, p. 12.

Figure 3.1

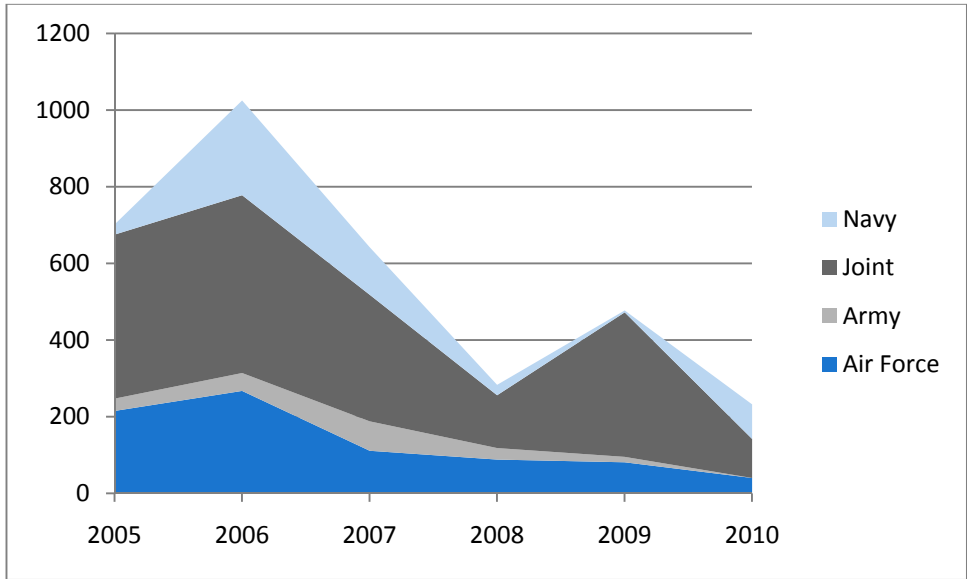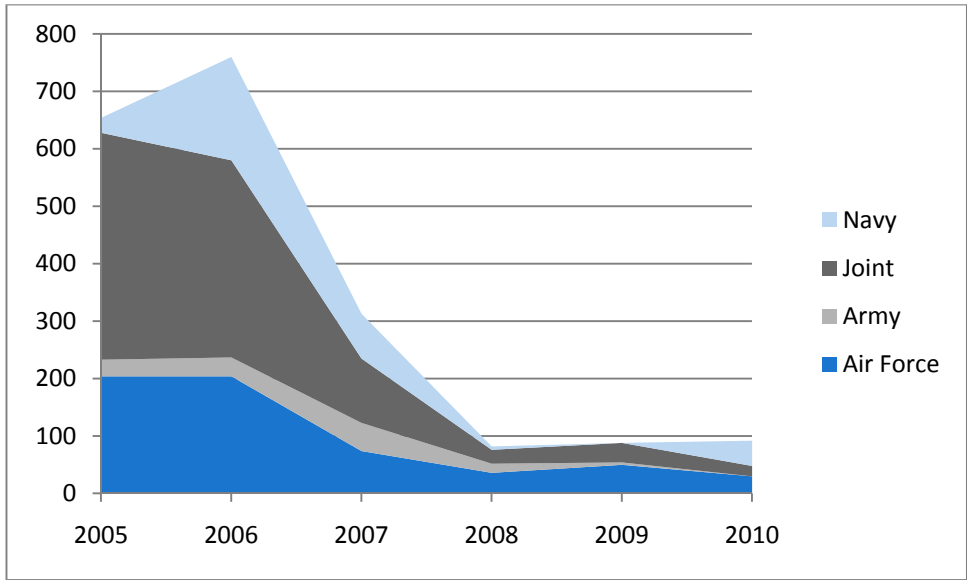**Proposed resolutions for issues raised, by organisation: 2005–2010**

Figure 3.2

Proposed resolutions flagged as complete, by organisation: 2005–2010

Note: Not all issues flagged as 'complete' were actually resolved: see paragraph 3.37.

Source: ANAO analysis of ADFAADS data.

3.35 As shown in summary form in Table 3.2, by the time of this audit almost one-third of proposed resolutions had no record of action undertaken and remained recorded as unresolved.

Table 3.2

Status of issues and issue resolutions in ADFAADS, 2007–2010

No. Issues	No. Proposed Issue Resolutions[A]	No. Issue Resolutions Completed	No. Proposed Issue Resolutions Unresolved	No. Proposed Issue Resolutions Unresolved For Longer Than 12 months
3213	4207	2909	1298	909
Outcome as a percentage of number of total proposed resolutions		*69%*	*31%*	*70% (of number unresolved)*

Note: (A) An issue may be deemed as needing more than one resolution. The data do not include those activities which have been archived in the ADFAADS system. Activities are automatically archived after four years in cases where all issue resolutions for that activity have been flagged as completed.

Source: ANAO analysis of ADFAADS data as at 4 May 2010.

3.36 The available ADFAADS data has limitations and provides an incomplete picture of the number of issues recorded on the system (which may be understated) or number and rate of issues resolved (which may have been overstated). This is due, in part, to the inadequate implementation of the ADFAADS categorisation and classification regime and the limited capability of ADFAADS search functionality. For example:

- At the service level, PARs are frequently attached to ADFAADS activity pages as separate files (such as Microsoft Word documents), rather than entered into the ADFAADS issues and proposed resolutions fields as intended. The issues raised in separate files cannot then be allocated to staff, or tracked using the ADFAADS workflow system, or identified and reported in ADFAADS statistics, or found by the ADFAADS database search engine.

- Of those entries recorded as having been resolved, some have been flagged as complete without any action having been taken, in order to clear them from the system.[99] Efforts have been made over time to reduce the number of old issues sitting in the current database: old, completed issues are moved to the ADFAADS archive database and are no longer readily accessible for analysis.

3.37 The result is that numerous issues and their resolution cannot be readily identified, while the completion rate of others has been overstated as efforts have been made over time to reduce the number of old issues sitting in the database.[100] In August 2004, the ADFAADS Management Group advised managers that:

> It is recommended that managers/releasers become quite pragmatic when flagging old issues complete so we can concentrate on current issues. This is not ideal, however many 3-4 year old issues fall into the 'too hard' category with no prospect of resolution in the short term - an 'unable to be resolved at this time due to current resource restraints' may be an appropriate 'formal action taken' entry. By flagging complete to 'Archive' the issue is not lost and can be used to help build a more convincing case in the future that might then win the requisite resource priority.

3.38 This approach has also resulted in many issues being marked 'in-actionable', with the cause recorded as lack of staff resources. While understandable, such actions reduce the fidelity of the recorded data and tend to mask the underlying causes of the problems inherent in ADFAADS' design and implementation. Foremost among these are the lack of suitable categorisation and prioritisation, and the lack of a hierarchy of importance, so that ADFAADS is now clogged with unresolved issues. This is indicated by the current treatment of the automatically generated ADFAADS emails to action officers:

> The automated structure of the program generates a suite of standard messages that track all actions and comments made in relation to the resolution of an issue. Action Officers are prompted throughout the process by automatically generated email messages. A range of monthly reports are also

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[99] The ADFAADS database requires an entry to be made in the 'formal actions taken' section in order for an issue to be flagged as complete. However, the entry may be something as limited as 'closed' or 'no further action'—there is no validation process to ensure that actions were in fact taken to resolve the issue.

[100] ADFAADS is unable to provide service-based summary reports of ADFAADS issues and resolutions from the ADFAADS archive.

generated automatically for ADFAADS managers and Action Officers of the status of items for which they are responsible.[101]

3.39 At the time of this audit, the automatically generated email to ADFAADS action officers listing outstanding issues not addressed was 99 pages long. The volume of outstanding issues was such that Defence staff informed ANAO that the emails were often disregarded and, consequently, no actions were being taken to reduce the number of unresolved issues.

Future evaluation repositories

3.40 Slow progress in addressing the identified shortcomings of the ADFAADS database has been accompanied by uncertainty over the future of ADFAADS. It is clear that, at the Service level, users have demonstrated their viewpoints and intentions in relation to ADFAADS by choosing not to use it, or by using it in ways that preclude it achieving its full potential.[102] This not to say that learning and recording lessons from operations is not considered important within the ADF. In the course of this audit, ANAO noted some ADF activities were under way aimed at improving or enhancing the ways in which lessons are collected, analysed and disseminated:

- Army have recently rolled out the web-based portal 'iArmy', accessible from the Defence Restricted Network. It is designed to allow Army to better manage, and provide a single point of entry for, information and knowledge. 'iArmy' includes Army doctrine, lessons, e-learning, an Army 'wiki'[103] and other sources of information. The lessons link provides many sub-categories, including lessons from operations, international lessons and access to the CAL Management Information System (CALMIS). The 'iArmy' portal also allows users to search across doctrine, learning resources and lessons, and provides links to other relevant parts of Army such as the Adaptive Warfare Cell and the

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[101] Department of Defence, *Defence Instruction (General) OPS 41–1: Australian Defence Force Activity Analysis Database System*, October 2001.

[102] US experience also highlights the difficulty of moving toward a universal system for managing lessons, despite the expressed intention of high level Defense personnel. The increased attention given to the business of ADF lessons management at the Service level since 2007 has occurred in the context of a constant operational tempo. In the US, increased focus on operational lesson collection and analysis came about with the 2003 invasion of Iraq; with the Joint Center for Operational Analysis first created in 2003 (and permanently established in 2004) with significantly larger resources than those previously provided for operational support for lessons.

[103] A 'wiki' is a website that allows users to add and update content on the site using their own web browser. Source: <www.techterms.com/definition/wiki> [accessed 4 June 2010].

lessons area of HQ Forces Command. ANAO considers that this model is a well-thought out approach to providing wide access to a user-friendly source of learning.

- In early 2010 Air Force approached the Command and Intelligence Systems Support Office (CISSO) (responsible for providing systems to the ADF for military operations) and Thales (the ADFAADS designer) seeking to have changes made to ADFAADS. These included improvements to data mining (via the search engine), the formatting of data reporting and the graphical user interface (better aligning it with typical Windows-based applications). Defence advised ANAO in June 2011 that Air Force is no longer seeking enhancements to ADFAADS.

- HQJOC, through Joint Project 2030 Phase 8 (JP2030), has recently implemented a SharePoint-based system.[104] Defence advised that this project has a requirement for establishing a search and read access to ADFAADS. This system is not accessible outside of JOC, although Navy intends to utilise it under a re-developed lessons process (see Chapter 2).

3.41 These initiatives appeared to be progressing in isolation from each other, without any evidence of whole-of-Defence collaboration or consideration of the impacts of undertaking these initiatives. As noted in Chapter 1, a hallmark feature of the lessons systems of many of the ADF's international counterparts is the move toward consolidated systems for collecting, storing and learning from operations and lessons. In this respect, the UK Defence Lessons Identified Management System (DLIMS) was developed to become a Defence-wide lessons application, allowing discrete domains to be established within it so that individual Services may (where required) manage their own procedures and govern security access, within the overall DLIMS system. This approach allows for the management of particularly sensitive material (for example relating to Special Forces or submarine warfare) as appropriate.

3.42 A more immediate issue is the functional future of ADFAADS. Vendor support ceased in April 2010 for the version of Lotus Notes underpinning

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[104] JP2030, Joint Command Support Environment (JCSE) has been established to deliver a cohesive and integrated command support environment for the planning and conduct of ADF operations. Source: <www.defence.gov.au/dmo/esd/jp2030/jp2030ph8.cfm> [accessed 3 May 2010].

ADFAADS. Defence informed ANAO that JP2030 could potentially look to replace ADFAADS altogether. Likewise, in 2010 Joint Capability Coordination (JCC), having recently inherited responsibility for the ADFAADS system, recommended that an urgent feasibility study be conducted into reacquiring some expertise and for the continued operation of ADFAADS. Ultimately, however, JCC's view was that priority should be given to replacement of the current ADFAADS database with a system similar to contemporary Windows-based programs.[105] Defence advised ANAO in June 2011 that this 'is no longer the position of JCC Division'.

3.43 Defence further advised ANAO in June 2011 that:

> As yet there is no enterprise system to facilitate sharing of lessons … The Joint Lessons and Evaluation Working Group operating under the JCC governance framework is developing a user requirement for an enterprise lessons system. In the short term there may be an opportunity to leverage of the Army CALMIS system and this is the subject of analysis by the Joint Lessons and Evaluation Working Group.

3.44 A lack of certainty continues to leave the immediate future of an ADF-wide knowledge management repository uncertain. At this point, a succession plan for ADFAADS appears necessary, including establishing:

- clear roles and scope, whether solely for joint operations or applying to all operations;

- a hierarchy of issues, allowing for the escalation of those of lasting significance and the rapid processing of lessons;

- linkages with other systems and other solutions already being adopted by the Services and JOC;

- a clear plan for capturing and migrating relevant ADFAADS data to a new system/s;

- a high level of useability, to encourage and support its adoption and to balance effective sanctions for non-compliance;

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[105] As noted in footnote 113, recruitment efforts within JCC included the recruitment of a full time APS4 database administrator. The position description for that role states that JCC will be reviewing the performance of ADFAADS and introducing a new system, and that the database administrator will be required to provide technical advice and maintain the new database.

- clear responsibility for incorporating international and inter-agency lessons; and

- a data structure that will allow comprehensive search and data-mining to support analysis, especially of trends across more than one operation.

Recommendation No.2

3.45   ANAO recommends that, to support an ADF-wide approach to learning from operations and exercises, the ADF establish a clear role and scope for future operational knowledge management repositories, and develop a clear plan for capturing and migrating relevant existing information.

Agency response

3.46   Agreed. This work is in progress under the leadership of the Vice Chief of the Defence Force through the Joint Capability Coordination Division and the Joint Capability Coordination Committee. The Joint Lessons and Evaluation Working Group has commenced development of the user requirement for an enterprise system to facilitate sharing of lessons, which will likely be addressed by leveraging off a Strategic Reform Program initiative.

4. High-level lessons and evaluating joint operations

This chapter discusses Defence's arrangements for the management of high-level lessons, including the implementation of the 'lessons learned knowledge management roadmap', and the development of joint-level operational evaluation.

Introduction

4.1　In 2010, Defence changed its arrangements for identifying high-level lessons from operations and evaluating the effectiveness of operations, notably sustained campaigns. These changes arose from the findings of the 2006 Capability Development Group (CDG) review of ADF lessons process and from the impetus of the ADF's continuing involvement in operations.

4.2　A key recommendation from the 2006 CDG review of the ADF's lessons processes was that a 'knowledge management roadmap' be developed and implemented to improve the capture and application of lessons across Defence. The *ADO [Australian Defence Organisation] Lessons Learned Knowledge Management Roadmap* (the Roadmap) was subsequently promulgated through the November 2007 VCDF directive that also mandated the use of ADFAADS to capture lessons.

4.3　The ADFWC was responsible for managing Defence's operational evaluation at the joint level, including the implementation of the Roadmap, up until 2010. Since then, HQJOC has become responsible for evaluation at the joint level.

High-level lessons initiatives

4.4　The Roadmap identified actions to be taken arising from the 2006 CDG lessons review so as to address key deficiencies in Defence's lessons learnt process. Action was proposed to address deficiencies in policy, staff procedures, personnel and staffing, compliance or assurance, doctrine, training, software, operating environment and networks, and perceptions and culture. A Roadmap Implementation Steering Group (RISG), chaired by the ADFWC, was established to coordinate implementation:

> The RISG which will meet quarterly and report progress [*biannually*] to the VCDF and the CJOPS Advisory Group (CAG). Roadmap implementation and management is dependent upon a robust and inclusive membership and the

appointment of appropriate authorities for each phase of the Lessons Learned process.[106]

4.5   The RISG considered that its number one priority was the development of a new Defence Instruction to replace the 2001 Defence Instruction on ADFAADS, which is the current policy document setting out Defence's lessons processes. A draft updated Instruction was developed by the RISG and a final draft was to be considered in the June 2009 RISG meeting. Defence advised ANAO in June 2011 that the development of this Instruction has been replaced with a Joint Capability Instruction on lesson and evaluation, which is planned to be signed off by the Head of JCC in July 2011.

4.6   Contemporaneously, the development of the 2009 Defence White Paper highlighted the need for appropriate mechanisms for higher level decision and direction on lessons learnt. Defence was aware that there was a need to improve its consideration of higher level lessons, observing that very senior oversight arrangements were in place for such lessons in other nations, including some of Australia's allies. With the strong agreement of CDF, in November 2008 the VCDF issued a minute to Service chiefs and group heads outlining the process to be followed for a six-monthly review of higher-level lessons by the Chiefs of Service Committee (COSC—see paragraph 5.17). The VCDF's minute stated that, supported by ADFAADS and the RISG:

> [*This initiative*] will emphasise the importance the senior leadership places upon developing the ADF's culture as a learning organisation and our intentions within the Defence Lessons Learned Roadmap.[107]

4.7   However, the RISG suffered from high staff turnover and a general lack of continuity in representation and attendance at the six RISG meetings that were held between November 2007 and March 2009. In February 2009, COSC decided to disband the ADFWC, which chaired the RISG, and the final March 2009 meeting of the RISG noted that:

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[106] RISG membership included representatives from ADFWC; HQJOC; Navy, Army and Air Force; Capability Development Group; Chief Information Officer Group; Defence Support Group; and the Defence Materiel Organisation. Subsequent to the issuing of the VCDF directive, the CDF, through the Chiefs of Service Committee, directed all groups and services to 'provide ongoing support to the newly established ADO lessons learned process and the implementation of the ADO Lessons Learned Knowledge Management Roadmap in accordance with the VCDF directive'.

[107] Vice Chief of the Defence Force, *COSC Review and Implementation of Higher Level ADF Lessons*, 16 November 2008.

The impact to the Defence Lessons RISG may be substantial as there is, to date, no identifiable 'volunteer' to accept responsibility for functions pertaining to the Defence-wide Operational Evaluation system which includes the management of the RISG.[108]

4.8   Subsequent progress is summarised in Table 4.1, which illustrates that neither HQJOC nor any other part of Defence has yet taken responsibility for the Roadmap and the RISG. Accordingly, these are now effectively 'orphaned', along with the associated reform initiatives. At the time of this audit, the ADF was without a functional high-level lessons system.

Table 4.1

Summary of Defence progress with key lessons initiatives

Initiative	Actions sought	Outcome
Issue of VCDF Directive	Mandated the use of ADFAADS; established the Roadmap and RISG (to manage the Roadmap); appointed operational evaluation management group (OEMG) as managers of joint evaluation and lessons.	Directive issued in November 2007, however ADFAADS usage continues to decline; RISG has not met since March 2009; OEMG has not met since February 2009.
The Roadmap	Respond to adverse findings of 2006 lessons review.	RISG has not met since March 2009, no progress on initiatives.
New Defence Instruction	Arising from the Roadmap, sought to replace existing 2001 Instruction.	Draft produced by RISG, but not approved.
Higher level review of lessons	CDF desire for COSC to play an active role in Defence lessons learnt through six monthly considerations of high level lessons.	No review of lessons by COSC undertaken.

Source: ANAO analysis.

4.9   Since the time of audit fieldwork, Defence advised that it has established a central forum, with representation from different parts of Defence and the Services, to consider and progress joint lessons initiatives. See Appendix 1 for detail.

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[108]   Minutes of the March 2009 RISG meeting.

Managing operational evaluation

4.10   From 1998 till 2009, the ADFWC Evaluation Wing[109] was responsible for contributing to the development and maintenance of ADF operational evaluation policy, procedures and processes. It also planned, conducted and reported on the evaluation of selected joint and combined operations, exercises and training activities, and provided input to preparedness management and capability gap analysis based on evaluation results.[110]

4.11   By 2007, the ADFWC was experiencing personnel pressures and, by 2009, the Centre had atrophied as the Services re-deployed their ADFWC-posted staff to fill higher priority positions. COSC was advised that, from 2010, this would restrict the ADFWC's ability to evaluate joint and combined exercises and operations. In March 2009, COSC decided that:

> the ADFWC be de-merged along output lines from January 2010, with exercise planning and evaluation related outputs transferring to [*Joint Operations Command*] and the balance of ADFWC outputs being rebranded as a fourth [*Joint Education, Training and Warfare Command*] campus until more suitable infrastructure can be provided.[111]

4.12   Under the new arrangements, HQJOC assumed responsibility for major ADF combined and joint exercise planning, operational evaluation, operational analysis and the management of joint and coalition lessons at the operational level. However, HQJOC did not at the time have the capability to undertake operational evaluation and subsequently established its J8 evaluation capability cell, without the officers of the Evaluation Wing of the ADFWC.[112]

4.13   As discussed at paragraph 4.8, the disposition of other key ADFWC evaluation functions was overlooked, including responsibility for ADFAADS and the implementation of the Defence Lessons Roadmap, the development and review of operational evaluation policy, and the ADF-wide coordination

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[109]   The ADFWC also managed the ADF's evaluation database, and hosted the ADFAADS Operational Evaluation Management Group, which supported the ADF-wide administration and oversight of ADFAADS and the development of evaluation doctrine.

[110]   Chapter 3 discussed the operational evaluations conducted by the ADFWC, summarised in Table 3.1.

[111]   The brief considered that as a 'brand', the ADFWC was recognised throughout the ADF, the broader Australian community and the international community as a centre of expertise in the delivery of its current suite of outputs (prior to its restructure), and that it would be misleading to continue to use the ADFWC title and therefore new 'branding' should be developed to communicate such changes, hence the name change to the Joint Education, Training and Warfare Command.

[112]   They were posted to other areas of Defence from mid-2009.

of operational evaluation through the Operational Evaluation Management Group. In February 2010, Defence's Workforce Management Committee approved the establishment of three full time positions in VCDF's Joint Capability Coordination Division (JCC) to accommodate certain operational evaluation outputs, including ADFAADS.[113]

4.14   In practice, operational evaluation functions were passed on to areas of Defence with limited existing knowledge of the operational evaluation framework, and with insufficient staff capacity (or, in the case of JCC, no staff capacity) to take on the roles previously performed by the ADFWC staff. Neither was there any formal transfer of ADFWC evaluation staff to relevant new positions, and there was only limited transfer of the knowledge necessary to maintain the continuity of operational evaluation functions.[114] While COSC made the decision to transfer the operational evaluation capability away from the ADFWC in March 2009, other areas of Defence were not prepared to accept these responsibilities. In June 2009 the ADFWC noted that:

> The ADFWC incumbents are therefore unable to hand over their duties and responsibilities to anyone at HQJOC, and extensive canvassing elsewhere in Defence including JCC Branch has resulted in the same conclusion. The above [*operational evaluation*] capability will therefore [*cease*] … around November 2009. … HQJOC will at best acquire additional uniformed personnel in 2010.

> Once the current [*operational evaluation*] capability ceases with the posting without [*handover*] of the incumbents it is estimated to take approximately two years to resurrect the capability (this is largely based on the Canadian experience between 2003–2005).[115]

4.15   Defence was aware that, without an adequate transfer of knowledge and resources, the possibility arose of an 'operational evaluation capability gap'. At the time of this audit, there was no ADF-wide capability for the development and review of operational evaluation policy, no full-time administrator for the operational evaluation database, ADFAADS, and no

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[113] The three positions (an Executive Level 1 Deputy Director to manage the operational evaluation section; an APS 6 Coordinator; and an APS 4 Database Administrator) were first advertised in May 2010. Defence advised that these positions were filled from July 2010.

[114] Some electronic files were transferred from ADFWC to HQJOC. However, ANAO was informed that, as at May 2010, these files were yet to be examined by HQJOC staff. A two-page handover brief and some additional documentation were also passed to JCC from ADFWC in November 2009.

[115] ADFWC, *Decision Brief for VCDF in Consultation with CJOPS (thru COMJETW)–Retention of Limited ADF Joint Op Eval Capability Post Talisman Sabre 2009*, June 2009. ANAO was advised that this brief was not circulated up to VCDF.

formal ADF-wide forum for progressing the issues identified during operations and recorded on ADFAADS.

4.16 The transfer of knowledge from the previous ADFWC organisation into new organisational arrangements was poorly managed by Defence, and led to the ADF's operational evaluation functions being greatly diminished for at least a year, beginning with the loss of operational evaluation staff at ADFWC from July 2009.[116]

Operational evaluation—Headquarters Joint Operations Command

4.17 From July 2010, the J8 directorate (J8 cell) of HQJOC became responsible for the conduct of operational evaluations of joint operations,[117] supplemented as required by other HQJOC staff and an embedded DSTO operations analysis team.[118] HQJOC has established processes for the evaluation and assessment of single operations and short term deployments (corresponding to lessons), and more substantial processes for evaluating ADF involvement in a campaign that may span a longer period of time and several operations (corresponding to joint-level evaluation).

HQJOC operational reports, capability reviews and operational evaluations

4.18 The J8 cell employs three approaches to assessing aspects of operations over the shorter term, comprising:

• reviews of commanders' operational reports;

• reviews of operational capability; and

• operational evaluations.

4.19 These approaches are geared toward providing timely support to CJOPS in order to inform current and future rotations in theatre.

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[116] Defence informed ANAO that the departure dates of the four ADFWC staff were staggered over the last year of ADFWC's operation, although this draw down did impact on the deployment of operational evaluation teams.

[117] The J8 cell does not evaluate exercises; this is the responsibility of another area of HQJOC, which is still developing its evaluation approach.

[118] At the time of this audit, J8's staffing comprised five ADF and one civilian personnel, similar to its predecessor, the ADFWC Evaluation Wing.

HQJOC operational reports

4.20 The J8 cell reviews and analyses commanders' operational reports that are provided at key stages of a major operational rotation, typically over an eight month deployment cycle. The reports comprise pre-deployment reports (focused on pre-deployment training and preparedness), mid-tour reports (to help inform the following rotation), and the final POR report together with a post-operation interview with the Commander.[119]

4.21 The focus of J8's review is on short-term issues that affect the operational level of joint and coalition warfare that cannot be fixed locally in-theatre without additional support from HQJOC, but that can be rapidly and expeditiously remedied with assistance. HQJOC advised that a key reason CJOPS created the J8 cell was to provide information that suited the operational tempo of JOC, a purpose with which the ADFWC's activities were not aligned.[120]

4.22 At the time of this audit, J8 had undertaken analysis of a POR from a 12 month operational rotation.[121] It had had yet to complete the review cycle for an entire operation, save for very brief deployments subjected to a truncated review process.

4.23 Defence intends that, in the future, lessons from a number of PORs reports be collated by theme for consideration by an HQJOC Lessons Board for confirmation and assignment for action to appropriate parts of HQJOC and Defence. The first Lessons Board was held in August 2009 to review the lessons theme 'Defence Assistance to the Civil Community' after Defence had

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[119] The 2010 CJOPS directive that established HQJOC's lessons process notes that for shorter deployments this process is to be modified, and that for rotations of lesser length parts of the process may be dropped or merged as necessary, with the reporting cycle and format to be followed outlined in the mounting directive or operations order.

[120] HQJOC further advised that 'CJOPS has also ensured that Lessons information is presented at the highest (operational) level in the ADF by having the J8 Learning Report as a standing agenda item at his monthly JCM (Joint Commanders' Meeting)'. The JCM is a monthly meeting run by CJOPS and attended by senior representatives from relevant areas of Defence. It is designed to bring key stakeholders together to receive updates on key operational issues, and for CJOPS to provide direct guidance to subordinate commanders.

[121] J8 had identified 38 issues, recommending a course of action for each. As at June 2010, progress resolving issues was mixed, with most low priority issues resolved or making progress, some medium priority issues showing some progress toward resolution, and little progress on high priority issues. Higher priority issues tended to be more complex, and to involve multiple areas of Defence and other agencies. At the time of audit fieldwork, J8 managed the 'Observations, Issues and Lessons' (OILs) through a Microsoft Excel spreadsheet. Defence subsequently informed ANAO that, in future such information, would be put directly into HQJOC's developing SharePoint Lessons Management System.

provided support for flood and bushfire emergencies in the summer of 2008–09.

HQJOC Operational Capability Reviews

4.24   HQJOC undertakes Operational Capability Reviews (OCRs) to inform future deployments. HQJOC evaluation staff are deployed into operational theatres to gather data to inform the development of the 'follow-on' force during the cycle of operational rotations. OCRs are intended to extend to the systematic, consistent review of all ADF operations under CJOPS' theatre command, rationalising the discrete teams that were previously employed to inform planning and force structure requirements for new or follow-on forces:

> Historically, ADF operational evaluation has been disaggregated, with joint and single service agencies undertaking various forms of evaluation to inform their own requirements, thereby risking duplication of effort and potentially bypassing the operational commander.[122]

4.25   ANAO examined the report of an OCR conducted in February 2009, including findings and recommendations made to CJOPS. Defence advised ANAO in June 2011 that all recommendations were either actioned or no longer required due to operational changes.

4.26   For short operations, and for operations where deployment occurs at very short notice, the assessment focus is on post operational evaluation. HQJOC advised the ANAO that these short notice, short-term deployments move too fast to develop measures of performance and measures of effectiveness, and that the lack of a security threat makes things less complicated. Defence Doctrine ADFP 5.0.1 states that

> For a short notice and/or short duration operation, the evaluation may necessarily be undertaken at the conclusion of the operation. However, for a longer duration operation an operational evaluation assessment plan is usually developed concurrently with the OPLAN.

HQJOC Operational evaluation

4.27   At the time of this audit, one operational evaluation had been conducted by a J8 HQJOC team examining the October 2009 Operation Padang Assist.[123] The objectives of Padang Assist were to support Australian

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[122]   Headquarters Joint Operations Command, *Operational Capability Reviews: Concept of Operations*.

[123]   Operation Padang Assist was the ADF contribution to the Australian whole-of-government response to assist the Indonesian government following an earthquake in Padang on 30 September 2009.

Footnote continued on the next page…

government assistance to Indonesian authorities, including supporting the Government of Indonesia to satisfy critical humanitarian needs, and contributing to the AusAID-led relief efforts in order to enhance the bilateral relationship with Indonesia.

4.28   The composition, role and methodological approach of HQJOC J8 operational evaluation teams resemble those of the former ADFWC evaluation teams.   The analytic process followed by the Padang Assist operational evaluation team is shown in Figure 4.1. It focuses on the HQJOC process for planning, responding to and monitoring humanitarian assistance and disaster relief operations, the execution of these operations, and how well the ADF achieved the desired mission effects.

Figure 4.1

Operational evaluation team process for Operation Padang Assist
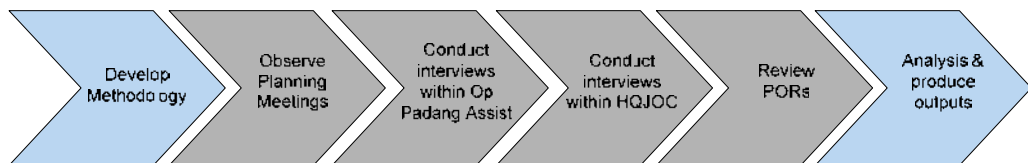
Source: Department of Defence.

4.29   While time constraints prevented the J8 HQJOC team conducting analysis to the depth intended, the main findings were:

- Government guidance focused on the platforms via which the ADF would provide assistance—the desired outcomes were not well-defined;

- emergency planning involving all key stakeholders (including Emergency Management Australia, AusAID, and Defence) would have been beneficial; and

- while a timely, visible presence was achieved, follow-up with Indonesian agencies to gain their perspective on the effectiveness of ADF assistance fell outside the period of the operation—this role is better suited to AusAID's longer-term presence in Indonesia.

At the time of the audit, HQJOC had also conducted an evaluation of Operation Mustang (the cancelled visit in March 2010 by the President of the United States) and Defence advised that the J8 cell provided support in early 2010 to the US Defense evaluation of assistance provided in response to the Haiti earthquake. Two additional evaluations (of Operation Pakistan Assist 2 and assistance provided to the Victorian Flood emergency) were underway by J8 at the time of the audit.

4.30 Defence advised ANAO in June 2011 that findings of this evaluation were adopted by HQJOC and were briefed to other government agencies. Defence further advised that the findings were also in the process of being included in the ADF's arrangements for supporting a whole-of-government response to a natural disaster or civil emergency in a developing nation.

Conclusion on HQJOC's assessment processes for short-term deployments

4.31 There was a hiatus in operational evaluation in the ADF during the period that the J8 cell and other supporting structures in HQJOC were being established, including the re-establishment of functions previously undertaken by ADFWC. HQJOC's shorter-term operational evaluation mechanisms are only newly established and their effectiveness cannot yet be gauged.

4.32 Like the previous ADFWC operational evaluations, the approach to determine mission success of the inaugural HQJOC operational evaluation of Padang Assist was under-developed. A lack of pre-defined guidance on measuring performance, in conjunction with understandably broad objectives, limited the operational evaluation team's ability to comment on operational performance beyond an examination of outputs.

4.33 The circumstances of Operation Padang Assist and the need to provide a rapid, flexible response are characteristic of many humanitarian operations, especially in the wake of natural disasters. They are, however, not unprecedented and the ADF would be best served by drawing on its past experience and applying well chosen criteria for the evaluation of short term deployments, for which planning is necessarily compressed. HQJOC is well placed to draw on prior ADF work on evaluation. For instance:

- ADFAADS includes PORs and PARs from a broad range of operations;

- standardised measures, such as ASJETs, could inform judgements on the achievement of operational objectives; and

- the *Operational Evaluation* doctrine provides guidance which should be the basis of the work of operational evaluation teams.

4.34 A challenge for HQJOC will be to effectively monitor and review the implementation of recommendations arising from its evaluations and assessments:

> The existing practice of staffing operational feedback to the HQJOC functional areas for action, without any primary analysis or assignment of priorities, is

inefficient and could lead to delays in the implementation of change and the verification of organisational adaptation …

The HQJOC methodology for evaluation and Lessons management must be built into the overall HQJOC planning, implementation [*and*] evaluation loop and ensure that the Lessons are fed back into the planning for current and future operations. It must provide assurance that Lessons have been acted upon in a timely manner.[124]

4.35   HQJOC informed ANAO that the HQJOC J3 and J5 cells (responsible for plans and operations respectively) are able to search the SharePoint database directly (see paragraph 3.40), allowing lessons information to be fed into JOC planning processes. Drawing on Defence's prior experiences in this area, ANAO notes that it will be important for planning areas to use information from SharePoint to help 'close the loop': ADFAADS was also intended to be accessed as part of the planning processes, however this was not done frequently.

4.36   Overall, the slim resources available to HQJOC will restrict evaluations to a small proportion of ADF operations and exercises. Therefore, there is unlikely to be any significant improvement on the limited coverage previously achieved by the ADFWC until the ADF affords evaluation greater priority and assigns resources for evaluation to operations, commensurate with their scale and importance.

Conclusion on ADF operational evaluation

4.37   Defence has published its inaugural *Operational Evaluation* doctrine (discussed in Chapters 1 and 3), which provides a guide for Defence to undertake structured evaluation. It is flexible enough to accommodate a broad range of operational activities and sufficiently rigorous to provide valuable operational information for current and future operations. Operating as guidance alongside this doctrine is the ADF lessons cycle, which closely aligns with the 'conduct' and 'implement, monitor, review' stages of the operational evaluation model. ANAO considers that the *Operational Evaluation* doctrine is a suitable tool and deserving of wider application than is currently the case.

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[124]   Chief Joint Operations, *Discussion Paper: Development of a J8 Capability in HQJOC*, March 2009.

4.38   However, Defence does not have a consistent, systematic ADF-wide approach to undertaking operational evaluation of operations. To date, implementation of approaches to operational evaluation have suffered from:

- a fragmented approach, so that there is a lack of consistency in the structures and processes adopted in each of the Services and at the joint level;

- limited resourcing, so that staff for operational evaluation are in short supply; and

- limited coverage of operations to date.

4.39   Chapter 2 showed that when the Services have conducted 'operational evaluation' they have primarily focused on the identification and collection of lessons, not the evaluation of performance against objectives. At the joint level, the former ADFWC-led evaluation teams proceeded in a similar manner as did the HQJOC operational evaluation team that deployed to Operation Padang Assist.

4.40   To date, the ADF's operational evaluation has focused on lessons learnt and has made limited progress toward evaluating performance. The ADF would benefit from setting clear boundaries between its lessons and evaluation processes and establishing a hierarchy of analysis that placed more importance on learning from and evaluating operations over exercises, and identifying and elevating important issues for resolution. A clear scheme of priorities would help to focus the ADF's evaluation resources on activities that offer the most potential to deliver data to inform ongoing improvement in its operational performance. For example, priorities could include focusing attention on measuring the performance of capability delivered to operations, the assessment of operational readiness in combined operations, and then on assessing regular exercises.

4.41   To better focus its lessons and evaluation activities, ADF doctrine and practices would benefit from distinguishing between 'lessons', focused on immediate and short term operational needs, and evaluation, focused on measuring operational performance against objectives using pre-determined measures.

Recommendation No.3

4.42 ANAO recommends that Defence develop a consistent approach to applying the operational evaluation doctrine to significant operations and exercises.

Agency response

4.43 Agreed.

Evaluating major operations and campaigns

4.44 At the time of this audit, HQJOC was seeking to implement an effects-based approach to assessing major joint operations (which are called campaigns).[125] This approach, trialled internationally most notably by the United States, involves evaluating the effects generated by the operations rather than assessing the sequencing and completion of operational tasks. It allows Defence to undertake detailed assessment of its military outputs to help measure progress toward Defence outcomes.[126] An effects-based approach also provides Defence the opportunity to assess the efficacy of the integration and effectiveness of the military contribution within the whole-of-government response. An effects-based approach is potentially:

> one of the most effective measuring methodologies available to the military and defence sector, as it creates a map of potential impacts of an activity across the spectrum of complex operations, which could increase the consideration of social and cultural effects of operations.[127]

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[125] Campaigns are defined as 'military operations planned and conducted to achieve a strategic objective within a given time and geographical area, which normally involve maritime, land and air forces,' and are planned and evaluated more extensively. Australian Defence Headquarters, *Australian Defence Doctrine Publication 3.0– Operations (Provisional)*, February 2008.

[126] Two strategic level lessons identified by operational evaluations led by the former ADFWC—a lack of coordination with other government agencies and slow responses to guidance when the operational environment changes—are able to be addressed through HQJOC's campaign assessment framework (see paragraph 3.15).

[127] Meharg, SJ, *Measuring Effectiveness in Complex Operations: What is Good Enough?*, op. cit., p. 8.

4.45 The international literature supports the effects-based approach, which addresses current perceived weaknesses in operational assessment, including improving measures of effectiveness and considering social impacts. HQJOC has drafted a doctrine note on this approach, identifying two primary aims:

> to integrate effort horizontally across all the friendly actors within an area of operations, and to ensure vertical consistency all the way from strategic guidance at the national level down to tactical activity …

> The vertical consistency is achieved as strategic intent is passed down through a Whole-of-Government approach to the operational level, giving subordinate commanders the wider context in which their activity will take place.

4.46 An effects-based approach is, however, a more complex approach to evaluation and relies on the availability of more comprehensive performance information and data.

Developing the effects-based approach

4.47 The effects-based approach to planning and evaluating operations is useful for placing intended operational outcomes in the context of whole-of-government guidance. The strengths of the approach are identified in the draft doctrine note as follows:

> **Continuous analysis and assessment**. This is the greatest strength of an *[effects-based approach]*. *[An effects-based approach]* includes continuous analysis and assessment as an iterative process, to deepen understanding of the changing environment and to modify planning and execution appropriately. Although this is not a change to current ADF doctrine, it has been a significant weakness in the ADF's approach to operations and a driving factor behind the desire of the ADF to embrace an *[effects-based approach]*.

> **Long-term vision**. *[An effects-based approach]* takes a long-term view to address not just the symptoms of a crisis, but its underlying causes. It aims not just to meet current political demands, but also to shape the environment in such a way that the ADF can withdraw without the likely prospect of a swift redeployment when the situation deteriorates.

> **Whole environment consideration**. *[An effects-based approach]* considers not just opposing military forces, but the whole environment, including third party actors, and recognises that it is complex, adaptive and often unpredictable.

> **Focus on outcomes**. Planning is conducted with a focus on objectives and the conditions required to achieve them.

4.48 HQJOC's intent is to build a picture of performance from the input and output level up to Defence's outcome level (Defence's objectives for a particular deployment). An effects-based approach supports this subjective and objective measurement of progress towards a campaign's objectives, in order to inform commanders' decision-making. The resulting campaign assessment framework Defence has developed encompasses:

Measures of Performance (MOPs). MOPs measure the performance of our own forces against assigned tasks ('Are we doing things right?'). MOPs give a level of confidence that assigned tasks are being performed well, and inform decision-makers about areas of critical resource or skill shortage. Generally, both quantitative and qualitative MOPs will be identified for assessment.

Measures of Effectiveness (MOEs). MOEs determine the extent to which SEs [*supporting effects*][128] are being realised in the Area of Operations ('Are we doing the right things?'). They may be qualitative or quantitative and, given the generally broad nature of SEs, a variety of perspectives is required. MOEs give an indication of campaign progress, informing on areas of positive or negative change in the environment.

Campaign Effectiveness Assessment (CEA). The CEA is the analytical process that informs, and is the precursor to, the Campaign Assessment. The CEA collectively examines the results of MOPs and MOEs from the recent reporting period with other relevant material, in order to determine campaign progress towards achieving the Decisive Conditions.[129]

Campaign and Strategic Assessment. The Campaign Assessment is a widely informed, subjective and objective evaluation of the campaign's progress towards achieving its Campaign and Defence Strategic Objectives. It monitors and identifies triggers which will inform of the need to either make changes to the campaign plan or re-posture the force. The Strategic Assessment, usually developed in conjunction with the Campaign Assessment, is a collaborative assessment of the effectiveness of the ADF contribution to a Whole-of-Government strategy. It seeks to identify, in consultation with OGAs [*other government agencies*], areas where changes or further coordination of effort is required in order to achieve the National Strategic Objectives.[130]

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[128] Supporting effects (SEs) are 'the building blocks of a campaign plan' and break the objectives of a campaign down into manageable elements. SEs are written as outcomes, describing the condition or change in condition on completion.

[129] A decisive condition is a situation that is a prerequisite to changing the nature of the ADF's involvement in an area of operations. A decisive condition is reached through the achievement of a number of supporting effects.

[130] Headquarters Joint Operations Command, *Procedural Doctrine Note: An Effects-Based Approach in HQJOC*, December 2009.

4.49 Putting the campaign assessment framework into practice requires a Joint Task Force to be responsible for drafting and reporting on MOPs and reporting on the MOEs developed by HQJOC. A Campaign Assessment Working Group, comprised of members of HQJOC and DSTO (those responsible for Operational Analysis), develops the Campaign Effectiveness Assessment together with input from other government agencies wherever possible. The Campaign Assessment Working Group nominally runs every six months, or as required to align with upcoming Campaign Assessment Boards, and the overall Campaign Assessment.[131] The high-level assessments in this process may include providing strategic level advice to the National Security Committee of Cabinet as required. An assessment from Defence intelligence is also considered as part of a campaign assessment.

HQJOC campaign assessments

4.50 A key intended benefit of developing the effects-based approach is engagement with other relevant government agencies. The draft doctrine notes that by engaging with other government agencies when assessing progress toward meeting ADF campaign and whole-of-government objectives, areas where these agencies are impacting on the ADF's strategic objectives can be identified and addressed. For instance, the Campaign Assessment Board (CAB) for East Timor found that:

> The Campaign Plan and the assessment conducted over the last 15 months highlights the importance of a whole-of-government approach to achieving the end state and assessing our progress towards it. The more informed we are from an array of sources, the better our analysis and ultimately our advice to [CJOPS].

> The Campaign Plan has proved itself to be a robust and authoritative document.

4.51 The status of HQJOC campaign assessment for the three Defence campaigns is as follows:

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[131] The campaign assessment board develops both the campaign level and strategic level assessments. The draft doctrine note states that the board is chaired by the Chief Joint Operations, and is comprised of campaign planning group members, the Commander of the Joint Task Force (CJTF), representatives from Defence's International Policy division, and other government agencies. The Campaign Assessment Board (CAB) should ideally be held every six months, or as required in order to align with changes in the political or operational environments.

- **East Timor**: the first campaign plan developed by HQJOC was for East Timor, which was signed by CJOPS in February 2009. After this, the campaign assessment process was undertaken based on results from the Operation Astute Joint Task Force from July 2008. The Operation Astute Campaign Assessment Working Group (CAWG) held several meetings in 2009. The first HQJOC Campaign Assessment Board (CAB) was held in November 2009 for Operation Astute (which did not include representation from other government agencies), based on performance data from July 2008 to September 2009. Defence informed the ANAO that developing measurement criteria for East Timor was a learning process, with the criteria and the campaign plan rewritten during 2010 because of changing security circumstances. Defence further advised ANAO that another rewrite of the Campaign Plan was conducted in June 2011, and meetings of the CAWG and CAB in late 2010 included representatives from other government agencies.

- **Afghanistan**: a campaign plan was developed in April 2010, however measures of performance had not been developed at this time. Defence advised that the measures of performance would be completed in late August 2010, and the subsequent CAB would involve other government agencies. Defence informed the ANAO in June 2010 that 'strategic Assessment and involvement of the Other Government Agencies (OGA) will occur for the next Campaign Assessment Board for the first time'. Defence advised that some of the metrics (measures and data for the measures of effectiveness) used in the Afghanistan campaign assessment process are used by the International Security Assistance Force (ISAF), and Defence will align its measures with those used by coalition partners where possible. Other campaign assessment measures relate only to the ADF and are developed independently of ISAF. Defence advised ANAO that the most recent CAWGs and CABs have been held in August 2010 and April/May 2011, which included representatives from other government agencies.

- **Solomon Islands**: Defence advised that a campaign plan was developed in 2009 and there has been in-theatre collection against measures of effectiveness. Government guidance on the mission was required before holding a CAB, and Defence subsequently advised ANAO that a CAWG and CAB were held in November 2010, which included representatives from other government agencies.

4.52 These campaign assessments illustrate Defence's application and the outcomes of the effects-based campaign assessment doctrine, which is still in its early stages.

DSTO Operational Analysis

4.53 DSTO personnel provide support to HQJOC evaluation and campaign assessment efforts, primarily through the deployment of operational analysis teams. Operational analysis teams provide a more structured scientific/quantitative approach to the examination of problems. An example of the Iraq operational analysis team's work was a review of logistics and air hub arrangements for Operation Catalyst. DSTO personnel have also conducted surveys of the civilian population in East Timor to assess the impact of an operation. Measuring shifts in attitude and changes in society (the impact of operations on the local population), which have been a focus for such surveys in East Timor, was of key importance to the Foreign Affairs, Trade and Defence Senate Committee.[132] Overall, the support provided to operational commanders by DSTO operational analysis teams is well regarded.

Conclusion on campaign assessments

4.54 Defence's recent shift toward campaign assessments comes with the goal of measuring, through subjective and objective means, progress toward a campaign's objectives, as a way of informing the decision-making of an operation's commander. The campaign assessment process provides a framework for the systematic measurement and assessment of Defence outputs and Defence outcomes. Campaign assessments are a markedly improved approach to operational assessments and, specifically, address two key weaknesses in earlier practices:

- they are developed based on the Defence-level outcomes sought, focusing at a higher level than past operational evaluations that tested various operational inputs; and

- they incorporate more robust measures of performance and effectiveness, offering a more structured approach to informing decision-makers, and allowing for better comparison over time.

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[132] See Senate Committee on Foreign Affairs, Defence and Trade, *Australia's involvement in peacekeeping operations*, Canberra, 2008, pp. 337-338. For further overview of this work of DSTO in East Timor, see Air Chief Marshal Houston cited in Commonwealth Parliamentary Debates, *Senate Estimates*, Senate Foreign Affairs, Defence and Trade Committee, 31 May 2010 (p. 152) & 1 June 2010 (p. 7).

4.55   Like other recent operational evaluation initiatives across the Services, the campaign assessment process is still in its infancy, and Defence is still learning to adapt its approach based on its experience. To date, effects-based approach assessments have focused on the achievement of Defence goals, and do not yet engage the efforts of other government agencies or extend to measuring progress toward government strategic outcomes. While the campaign assessment framework is not yet bedded down, employed as intended, it should addresses significant weaknesses in Defence's previous approach to assessment. Prior to 2009, Defence did not have in place a systematic process to measure the performance of ongoing operations. It is important that the guidance from HQJOC's effects-based approach and assessment doctrine is given effect in practice, something that was not achieved with ADFAADS.[133]

4.56   Defence advised ANAO in June 2011 that:

> Effects-based assessments … now include a consultative process with other government agencies through Campaign Assessment Working Groups, and in the executive Campaign Assessment Boards where decisions are made based on the measured performance and conditions for the Campaign.

AFP Framework

4.57   The Senate Committee's inquiry into peacekeeping operations touched upon the need for information-sharing between government agencies involved in operations and particular note was made of the AFP's lead role in the Solomon Islands. The AFP, as part of its involvement in peacekeeping operations, has been developing an evaluation framework that was close to completion at the time of this audit. ANAO was informed that the AFP has not yet applied its framework, which aims to develop performance measures for assessing the AFP's impact and performance in peace operations.

4.58   In October 2006, the AFP and the University of Queensland (UQ) completed a pilot program to develop performance measures for peacekeeping

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[133]   Options proposed but not accepted by Defence include the independent assessment of operations, selectively or in total, by an entity independent of the operational command structure. A proposal was provided to CDF for an independent 'Operations Auditor', to develop an audit template, performance criteria, Measures of Effectiveness and an annual process for operational auditing. This approach is based on the 10 generic functions of force projection (from generic preparation to employment on operations and reconstitution), including the conditions and standards described in the ASJETs for performance criteria and Measures of Effectiveness. The results of such operational audits could then be reported in Defence annual reports.

missions. This pilot program provided the groundwork for an extended UQ project to:

> develop an effective means of measuring the [*AFP's International Deployment Group's*] impact on Australian interests and international peace and security through its participation in peace operations and capacity building. These measures will allow the [*International Deployment Group*] to examine what it is delivering, improve future delivery, and demonstrate return for investment.[134]

4.59 A key deliverable from the project is a framework that both guides field practitioners' measurements of effectiveness and provides tools to undertake those measurements. At the time of the audit, the full framework was not complete, although an abridged framework had been completed, which is summarised in Table 4.2.

Table 4.2

Summary of AFP's performance measurement framework

Stage of measurement	Brief description
Mission context	Scoping the mission or program.
Stakeholders	Ensuring 'stakeholders are identified as well as understood'.
Visions of success	Identifying what each stakeholder sees as 'success'.
Situation analysis	Learning about 'today's strengths, weaknesses, opportunities and threats, and in the process establish baselines from the current situation'.
Planning	Describing the path forward for change. 'This will involve determining what needs to change in the environment in a broad sense and how such change can be achieved in more specific terms'.
Monitoring loops	Designing and initiating 'uncomplicated, ongoing processes for monitoring the implementation of work plans'.
Community communications	Communicating 'to the broadest audience (i.e. those not already aware) the plans and goals generated throughout the previous stages'.
Unintended consequences	Incorporating insights from unintended consequences (both positive and negative) into future planning and monitoring and evaluation design.
Evaluation reporting	'Transferring and translating this wealth of information into more formalised evaluation reports for managerial or accountability purposes'.
After action review	Identifying lessons learnt and ensuring this information is used and retained.

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[134] University of Queensland, *Proposal: Measuring the Impact of the IDG's Contribution to Peace Operations and International Capacity Building*, December 2006.

4.60   The focus of the framework is on the outcomes of APF deployments, and its impact on the country and local population. In this context, the draft abridged framework notes:

> Claims of causation beyond outputs (e.g. number of police having completed a training course) must be altered to reflect the *contribution* that specific activities or programs may have had at the outcome level …

> In spite of the relative ease with which to 'attribute' outputs to activities, and the similarly high degree of control over outputs, such a focus nevertheless risks missing the point by ignoring how policing outputs combine with other forces/factors to produce that which truly matters: namely, the outcomes and impacts relating to the visions of success developed in the early process stages.[135]

Comparison with ADF approach to evaluation

4.61   The evaluation approaches currently being introduced in the ADF and the AFP share some basic similarities as shown in Table 4.3. Both approaches have an outcome-based approach to evaluating progress and determining success, and seek to involve additional stakeholders in their evaluation process.

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[135] University of Queensland, *Collaborative Monitoring and Evaluation: Program Management Framework Operational Manual (Abridged Version)*, April 2010.

Table 4.3

Comparison of Defence and planned AFP approach to evaluation

Stage	AFP framework developed by the University of Queensland	Defence effects-based approach & campaign assessments
Stakeholder involvement	Participation from stakeholders should be sought on the evaluation approach designed.	An effects-based approach considers the whole environment within which Defence operates, including third party actors. Defence intends to involve other government agencies in future campaign assessments.
Planning the evaluation	Planning is to begin with establishing the rule of law baseline, then paths forward for change.	Planning is structured around Defence's established mission goals (based on interpretation of government guidance).
Evaluation process	Rule of law functions of the country are assessed and scored.	Evaluations comprise measures determined by deployed personnel and HQJOC, with input from Defence intelligence.
Determining success	Wide participation from stakeholders in determining what is success. Focus on progress toward outcomes.	Based on Defence personnel, through Joint Task Force & HQJOC campaign assessment board. Focus on progress toward Defence outcomes.
Reporting the evaluation	Internal reports should clearly articulate cause and effect and focus on outcomes. AFP advised that, once the UQ framework is implemented, aggregated performance information for each mission will be used as one source of information for reporting to senior executive and reporting against portfolio KPIs.	Campaign assessment boards present progress results to the Chief of Joint Operations. Defence advised that the outcomes of the first campaign assessment board for Afghanistan were considered by a Campaign Planning Group at HQJOC and briefed to the Strategic Command Group (chaired by CDF).
Post-reporting activities	An after action review identifies lessons learnt, and engages stakeholders to consider how the process went.	Metrics used for assessment are to be reviewed after each Campaign Assessment Board.

Source: ANAO analysis of Defence and AFP documentation.

Toward an outcomes-oriented approach for whole-of-government assessments

4.62   As yet, there is no whole-of-government approach to assessing the strategic level outcomes sought by government from operations. The Senate inquiry into Australian Peacekeeping recommended that: 'relevant government agencies jointly develop standard measurable performance

indicators that, where applicable, would be used across all agencies when evaluating the effectiveness of their peacekeeping activities'.[136] The Government agreed in part to this recommendation:

> **Partially Agreed**. The Government notes that agencies already monitor and evaluate peacekeeping missions, particularly where agencies are represented together in the field. The AFP has contracted the University of Queensland to research measures of performance for police contributions to peace and stability operations and capacity building missions. Initial discussions between AFP and DSTO specialists have determined that some of the measures could be jointly applicable to both policing and the ADF in the peace and stability operations environment, and they will attempt to test this joint applicability in an exercise environment.
>
> Government agencies, however, hold differing areas of expertise and mission focus, necessitating divergent approaches towards meeting their particular mission goals and requirements. In conjunction with the diverse scope of requirements across peacekeeping missions, this makes it problematic to standardise performance indicators across multiple peacekeeping operations and contributing departments.[137]

4.63 The national crisis management machinery provides the highest level whole-of-government coordination for operations, within which the ADF contribution is coordinated and deployed.[138] It includes the Strategic Policy Coordination Group and working level interdepartmental committees and emergency task forces, and Defence necessarily has a core role in these groupings. ANAO notes that this structure provides an established approach to planning and conducting operations that involve multiple agencies.

4.64 AFP advised ANAO that there has been some preliminary discussions between AFP and DSTO on the possibility of joint monitoring and evaluation research projects. It is encouraging that the evaluation frameworks being

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[136] Senate Committee on Foreign Affairs, Defence and Trade, *Australia's involvement in peacekeeping operations*, Canberra, 2008, p. 340.

[137] Government response to peacekeeping inquiry, 2010, Canberra, p. 18.

[138] The national crisis management machinery is the hierarchy of committees that anticipate, monitor and coordinate responses to overseas emergencies at the strategic level, and comprises:

- the National Security Committee of Cabinet (NSC);
- the Secretaries Committee on National Security (SCONS);
- the Strategic Policy Coordination Group (SPCG); and
- Interdepartmental committees and Emergency Task Forces made up of relevant agencies.

developed by the ADF and AFP share an outcome-based approach to evaluating progress and determining success, and seek to involve additional stakeholders in their evaluation process. However, there is yet to be established a whole-of-government structured approach to assessing the outcomes of operations, in which Defence, of necessity, would have a central role.

4.65 The adoption of an effects-based approach to campaign assessment provides the ADF with the framework to work with other entities to assess whole-of-government operational outcomes. This is particularly relevant for the AFP, who may have a prominent role in some overseas operations that include Defence. The AFP has also recognised the need to focus on the outcomes and impacts of operations, through the development of a performance measurement framework.

4.66 The ANAO considers that where deployments comprise both the ADF and the AFP, there would be merit in the agencies working together to undertake assessment, based on an agreed framework, of the whole-of-government outcomes, involving other agencies, such as AusAID, where appropriate. Developments within Defence (an effects-based approach) and AFP (collaborative monitoring and evaluation framework) provide a basis from which to develop a framework for whole-of-government assessment.

4.67 ANAO recognises that measuring operational performance is challenging. Operations may involve several countries and, in those cases, an agency's or country's direct effect may not always be obvious. The relationship between operational outputs (what a deployed force has produced) and strategic outcomes and impacts (the results and changes 'on the ground') is complex and influenced by many variables. Defence advised ANAO that whole-of-government performance reporting for current operations is the remit of central agencies. However, given the importance of Defence's contribution to most overseas missions, ANAO considers that Defence would have a central role in any approach to measuring whole-of-government performance and progress.

4.68 While recognising these difficulties and those highlighted in paragraph 4.62, a systematic approach to gauging progress is needed to inform key stakeholders and to inform any changes in objectives and tactics. Also, considerable public funds are expended on operations (as well as deploying personnel to dangerous areas), with a corresponding need for performance management and reporting, as for other major activities of government.

Recommendation No.4

4.69 ANAO recommends that, to better inform key stakeholders on progress of overseas operations, Defence work with relevant agencies to develop a structured approach to measuring whole-of-government performance and progress toward government objectives.

Agency response

4.70 Agreed.

5. Information sharing and reporting to Parliament

This chapter examines the manner in which the ADF shares information and lessons, including with other government agencies and militaries. It also examines the mechanisms Defence has in place to inform Parliament on operational progress and outcomes.

Introduction

5.1   As part of its response to the 2007 Senate Committee request, the ANAO examined the nature of information and lessons sharing within the ADF and with other agencies.

5.2   When the government responds to complex crises with national security or humanitarian dimensions, Defence is invariably involved. Other organisations and groups that Defence may work alongside (depending on the situation) include other government agencies; the armed forces of other countries; international non-government organisations; and the government and other organisations of a host country. Defence guidance on operations requiring cooperation with non-military actors is found in Defence doctrine ADDP 3.11 *Civil-Military Operations,* which describes the nature and scope of civil-military cooperation in support of ADF operations.[139]

5.3   Defence collaboration with other government agencies is via interdepartmental committees, specially convened taskforces, working groups and review teams.[140] Defence participates in whole-of-government exercises to prepare for potential operations. ANAO notes that, at the time of this audit, the whole-of-government exercises listed in Defence's Program of Major Service Activities (PMSA) relate to counter-terrorism, and do not include humanitarian and disaster relief operations.[141]

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[139] Defence informed the Senate Committee that Army also has a doctrine relevant to civil-military coordination: Land Warfare Doctrine 5.2 is an Army doctrine explaining the nature and characteristics of civil-military cooperation in an area of operations. Senate Foreign Affairs, Defence and Trade Committee, *Inquiry into Australia's involvement in peacekeeping operations: Responses to questions taken on notice from the Department of Defence*, 24 July 2007, question W22, p. 32.

[140] Baxter, H, 'Connecting capabilities', *Defence Magazine*, April 2006.

[141] Defence advised ANAO in June 2011 of two humanitarian and disaster relief activities which involve whole-of-government participation:

5.4   The 2003 Regional Assistance Mission to the Solomon Islands (RAMSI) was the first time the ADF had deployed in support of another Australian Government agency, and was the first time the AFP led an international law and order operation on such a large scale. Two recent examples of close civil-military engagement on operations are Operations Padang Assist and Pakistan Assist 2, with the latter being an AusAID led operation. Defence advised that AusAID and JOC are working together to review Pakistan Assist 2.

5.5   Liaison and exchange officers (ADF personnel deployed with other parts of the ADF, other agencies or other defence forces) are important mechanisms for operational coordination, and also facilitate the exchange of experience and learning of lessons across agencies and Services. However, liaison arrangements are not guaranteed of success, and are less effective when the intent is unclear or the purpose is vaguely defined. Additionally, while there is an AFP liaison officer within HQJOC, there is no reciprocal ADF liaison within AFP's International Deployment Group, the area responsible for preparing and training AFP personnel for overseas deployments.

Sharing lessons within Defence and with other government agencies

5.6   Notwithstanding flaws with ADFAADS, it remains the primary mechanism for sharing lessons information across the ADF. The J8 cell in HQJOC passes on tactical observations to other Defence groups for action as appropriate. There does not tend to be any lessons sharing between the Services. However, there have been several ad-hoc interactions between the ADF (particularly HQJOC) and other agencies reviewing whole-of-government lessons. These developments, while encouraging, are not yet regular or systematic. Presently, there is no established forum or avenue where multiple agencies involved in an operation exchange their lessons or work together to produce a 'lessons' report or evaluation post-operation.

The Asian Regional Forum (ARF) conducts exercises and conferences annually, including a Disaster Response Exercise (DiREx). The ADF has initiated a bilateral exercise with China, Ex COOPERATION SPIRIT which is a HADR [*Humanitarian Assistance and Disaster Relief*] exercise and will involve AUSAID elements and potentially Emergency Management Australia (EMA).

Asia Pacific Civil-Military Centre of Excellence

5.7   The creation of the Asia Pacific Civil-Military Centre of Excellence (the Centre) has the potential to provide a forum for whole-of-government lessons learnt and to assist in the development of joint reviews of operational performance. The Centre was opened in November 2008, and is administered by Defence.[142] Its mission is to support the development of national civil-military capabilities to prevent, prepare for and respond more effectively to conflicts and disasters overseas.[143] This includes capturing lessons learnt and working with other government agencies. The Centre has approximately 32 staff, most of whom are seconded from a range of government agencies on one year placements.[144] The Centre has run several seminars relating to civil-military interaction.

5.8   The Centre is developing a conceptual framework for improving Australian civil-military interaction for international conflict and disaster response. The April 2009 Australian Strategic Policy Institute report on Australia's civil-military collaboration for responding to overseas emergencies found that: 'there is no whole-of-government evaluation of operational performance or a mechanism for applying civil-military collaboration lessons'. The report considered that the Centre should also consider the 'capture of lessons and mechanisms for applying lessons for prevention, preparation and responding to conflict and disasters overseas'. The Centre's draft conceptual framework states that:

> While individual agencies have evaluation mechanisms for examining the success of their activities and identifying lessons learned, there is no mechanism for undertaking evaluation at a whole-of-government level. As such, lessons learned and mechanisms for improving civil-military-police collaboration are not a core focus for individual agency evaluation and those that are identified are not shared across the departments.

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[142]   The Centre informed the ANAO that it reports directly to the Secretary of Defence and the CDF, however for day-to-day administrative issues it is part of the VCDF group. The Centre has been 'administered' by VCDF Group since May 2009. Department of Defence, *Annual Report 2008–09*, Canberra, p. 105.

[143]   Asia Pacific Civil-Military Centre of Excellence, 'Strategic Statement', <http://www.civmilcoe.gov.au/web.php?sec=41> [accessed 14 July 2010].

[144]   Australian agencies include Defence, DSTO, DFAT, AUSAID, AFP, the Attorney-General's Department (AGD), and Emergency Management Australia (EMA). Additionally, the Deputy Director of the Centre is on secondment from the New Zealand Ministry of Defence. Asia Pacific Civil-Military Centre of Excellence, 'our people', <http://www.civmilcoe.gov.au/web.php?sec=14> [accessed 14 July 2010]. See also Government response to the Senate Standing Committee on Foreign Affairs, Defence and Trade report on *Australia's involvement in peacekeeping operations*, pp. 17-18.

> To ensure continuous improvement in civil-military-police collaboration and effective management of international conflicts and disasters, a comprehensive evaluation and lessons learned capability should be developed.

5.9 As at October 2010 the Framework was in draft format, having been circulated to other agencies for feedback but yet to be considered by Defence for final release. The Centre informed the ANAO that the research and lessons learnt area of the Centre is very new, and is still developing.

5.10 The Centre informed the ANAO that it has participated in Defence exercises and training, for example Exercise Talisman Saber (a combined exercise), which now includes a stabilisation component involving civilians. However, it is not clear that the Centre has yet to become a regular source of engagement for the ADF's exercise program.

5.11 The Centre represents an important development in interagency cooperation for responses to crises. Further, it has the potential to fill a significant gap in whole-of-government collection and dissemination of operational lessons. The development of a conceptual framework, and associated mechanisms to improve lessons learnt processes across agencies, is an important step in formalising inter-agency cooperative approaches to lessons and operational assessment. The Centre is still new and faces challenges to fulfilling its potential, and its activities remain focused on largely conceptual issues. The Government response to the Senate inquiry stated that the progress of the Centre will be formally reviewed sometime in 2010–11.[145] Defence informed ANAO in June 2011 that the review has been completed and is under consideration.

Sharing lessons at the International level

5.12 The ADF has extensive arrangements for sharing lessons at the international level, including conferences, publications, interaction with international lessons centres, and access to coalition material such as PORs. Sharing of lessons at the international level is aided by the fact that there are established forums set up for these exchanges, both Service specific forums and operation type (for example peacekeeping) forums.

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[145] Government response to the Senate Standing Committee on Foreign Affairs, Defence and Trade report on *Australia's involvement in peacekeeping operations*, p. 18.

5.13 Additionally, Defence advised that the Services obtain great value out of interaction with its international Service counterparts (which is focused on tactical level lessons). At the joint level, a key forum is the annual International Lessons Learned Conference, attended by HQJOC in accord with its overarching responsibility for planning and evaluating joint operations.[146]

5.14 Defence's program of exercises with allied nations is another mechanism whereby lessons can be identified and shared, for example through exercise participation and the dissemination of relevant Post Activity Reports to all participants. There are also exchanges of PORs between allies. The ANAO considers that lessons sharing at the international level is well established, and it is important that the ADF remains engaged in relevant international lessons forums.

Reporting to Parliament

5.15 Parliament receives reports on operational progress and outcomes and impacts via statements provided by the Minister for Defence; evidence given by the Chief of the Defence Force (CDF) to various Parliamentary committees, particularly Senate estimates committees; and via the Key Performance Indicators (KPIs) of operational performance included in Defence's annual reports.

Mechanisms that inform CDF on operational progress

5.16 As part of his overall command responsibility, CDF requires that he be kept informed on operational progress. CDF will also inform Parliament on operational progress in response to questions, particularly during hearings of Parliamentary committees. The ANAO examined the formal processes that inform CDF on operations, comprising the Chiefs of Service Committee (COSC) and the Strategic Command Group (SCG). The Chief of Joint Operations (CJOPS) is a key source of advice and information for CDF on operations, with CJOPS a member of COSC and Deputy CJOPS a member of SCG.

5.17 COSC provides military advice to CDF to assist him in discharging his responsibilities in commanding the Defence Force and as principal military adviser to the Government. COSC meets monthly and comprises the most

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[146] In 2009 Defence representatives from both HQJOC and ADFWC attended the International Lessons Learned Conference, reflecting the transition in responsibility for ADF lessons management.

senior and experienced officers in Defence: CDF (chair); Secretary of Defence; VCDF; the Service Chiefs; the Deputy Secretary Strategy; Chief Capability Development Group; and CJOPS. COSC is a forum for robust debate in which a corporate perspective is considered, rather than a focus on any particular Defence organisation. COSC requires papers to be considered at meetings to be lodged seven days in advance.

5.18   SCG has an operational focus. It provides advice to CDF in relation to ADF operations, in support of his roles as principal military adviser to Government and commander of the ADF. SCG reports situational awareness of ADF operations to CDF and is a secure forum in which CDF can issue direction and intent. SCG coordinates Defence's response to critical incidents (for example, death or multiple major injuries among ADF personnel, or emergencies which may require an ADF response).

5.19   Membership of SCG meetings varies according to the issues being considered. These are categorised as advice to CDF on strategic issues; situational awareness for CDF on operational issues; and other contingencies for which CDF will need to direct the ADF and advise government. Most members of COSC also attend SCG (although CJOPS is not a member, DCJOPS attends for the consideration of operational issues), as well as various relevant senior representatives. SCG allows issues for consideration to be lodged up to 20 minutes prior, reflecting the more dynamic nature of operational issues considered.

5.20   Defence informed ANAO that SCG meets weekly and considers PORs and PARs, Operational Capability Reviews and campaign assessments. ANAO notes that the SCG in particular is the forum through which the CDF is regularly informed of operational progress and, along with the deliberations of COSC, allows CDF to be well-informed of the current state of ADF operational involvement. ANAO was informed by Defence that these are the principal avenues of information and advice that inform CDF's reports to Parliament.

Key Performance Indicator (KPI) reporting

5.21   In 2008–09, the Australian Government required all agencies to measure their intended and actual performance in terms of outcomes,

including reporting against Key Performance Indicators (KPIs).[147] Outcomes are the results, impacts or consequences of actions by the Government on or for the Australian community. Agencies were also required to identify the output groups that demonstrate their contribution to government outcomes over the year.[148] The Defence Portfolio Budget Statements 2008–09 (PBS) included Defence outcomes and associated output groups, and specified performance indicators and targets to be used to assess and monitor Defence's performance in achieving government outcomes.[149]

5.22 Defence's annual report is the chief mechanism for informing Parliament and other stakeholders about its performance in relation to outcomes and outputs/programs.[150] KPIs are intended to measure the achievement of the output group objectives, linking the intentions of the PBS to the results achieved and reported in the Annual Report. They are required to be measurable and achievable within a set timeframe. Achievement of KPIs is an indicator to Parliament and the reader as to which objectives have been, or are on the way to being, achieved.

5.23 The reported KPIs provide an overview of the performance of Defence operational activities at the outputs level, though the information provided is general in nature and offers little insight into the conduct of operations and exercises and their impact.[151] As they stand, Defence's operational KPIs would benefit from better-specified measures of success, including information on

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[147] For the 2009–10 Commonwealth budget, agencies were required to move to a new outcomes and programs framework. Under the Framework, agencies are still required to measure the intended results, impacts or consequences of actions by the Government on the Australian community. One significant variation in reporting is that agencies are now required to identify the programs that contribute to Government outcomes over the budget and forward years, rather than the output group that contributes to Government outcomes, as was previously outlined in the Outcomes and Outputs Framework.

[148] Department of Defence, *Budget Portfolio Budget Statements 2008–09: Defence Portfolio*, May 2008, p. 69.

[149] The ANAO assessed the application of the Outcomes and Outputs Framework in government agencies in ANAO Audit Report No.23 2006–07 *Application of the Outcomes and Outputs Framework*, and found that there was wide scope for improvement, including:

- a number of outcome statements were broad and did not express the result or impact to be achieved;
- direct linkages between outcomes and outputs were absent;
- performance indicators for many agencies did not enable an assessment to be made on whether desired results were achieved, as indicators did not incorporate targets, benchmarks or other details of the extent of achievement expected.

[150] Department of the Prime Minister and Cabinet, *Requirements for Annual Reports for departments, executive agencies, and FMA Act bodies*, June 2009, p. 2.

[151] The Senate Committee's previous inquiry into Australia's public diplomacy found that DFAT's annual report did not provide the information required to measure the effect of their public diplomacy programs. It described activities without any reference to outcomes, and provided no indications that immediate or long term effects were being measured.

how success was gauged.[152] In their present form, they offer Parliament little insight into the impact of operations and the operational performance of the ADF.

5.24 There would also be benefit in Defence drawing upon existing processes for evaluating operations, including the outcomes of campaign assessments and Commanders' post-operational and post-activity reports, to more strongly inform the operational KPIs through a clear and structured process.

Recommendation No.5

5.25 ANAO recommends that, to improve performance evaluation of operations and exercises, and better inform its performance reporting to Parliament, Defence:

(a) apply suitable criteria and a structured approach to evaluating performance; and

(b) develop a clear and structured process that includes evaluations of operations to inform relevant performance indicators reported to the Parliament.

Agency response

5.26 Agreed. This is being addressed with the implementation of Campaign Assessment processes.

Ian McPhee   Canberra ACT

Auditor-General   12 July 2011

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[152] From time to time, the ADF provides in-camera advice to Parliamentary committees, Senators and Members of the Parliament on sensitive operational matters.

Appendices

Appendix 1:   Progress on joint Defence lessons initiatives

1.   The following appendix is based on advice provided to the ANAO by Defence in June 2011. Defence provided ANAO with a detailed update of initiatives undertaken since the completion of audit fieldwork:

> In order to address the shortfalls in the ADF's learning framework, the Vice Chief of the Defence Force (VCDF) has tasked Joint Capability Coordination Division (JCC) to coordinate Joint Lessons and Evaluation across Defence. The JCC governance framework readily supports the development and coordination of joint and shared capabilities, like an enterprise lessons system. The JCC command chain employs the Joint Capability Coordination Committee, and the Joint Lessons and Evaluation Working Group to drive and facilitate interaction between Service lesson agencies, to identify lessons that are relevant beyond an individual Service, and to focus on capability development requirements for joint lessons and evaluation. This includes the requirement for an enterprise lesson system.

> JCC was established in January 2009 to improve Defence's capacity to deliver joint force capability. Working with the Groups and Services, the Division also develops concepts, experimentation programs and joint projects. The Joint Lessons and Evaluation cell was established within JCC on February 2010, and the two Australian Public Service desk officer positions were filled in July 2010. In October 2010, the Chief of the Defence Force (CDF) granted Head JCC the authority to sign Joint Capability Instructions to guide the development of specific joint capabilities, including for joint lessons.

> The Joint Lessons and Evaluation Working Group was established in February 2011, and its first task has been to develop the Joint Lessons and Evaluation Joint Capability Instruction. This Instruction is currently in draft, with signature anticipated shortly once final coordinating comments have been received. The next order of business for the Joint Lessons and Evaluation Working Group will be to develop the user requirement for an enterprise lessons system, including for the transition of current Australian Defence Force Activity and Analysis Database System (ADFAADS) data to this

system. The Joint Lessons and Evaluation Working Group is conducted at the O6 level and meets monthly.[153]

The functions of the Joint Lessons and Evaluation Working Group are to:

(a) provide a forum for discussion and resolution of Lessons Learned issues;

(b) influence and initiate change that supports best practice in Operational Evaluation (OE);

(c) develop policy guidance on the conduct and management of joint lessons collection, analysis and OE across Defence;

(d) support the continuous enhancement of capability and preparedness through coordination of the delivery of effective OE and its supporting systems and activities;

(e) review the status of key lessons, analysis and OE activities and results, propose and consider follow-up action reports, and make recommendations as required through the Joint Capability Coordination Committee; and

(f) support lessons analysis and evaluation collaboration and information sharing across the Defence community.

While the Joint Lessons and Evaluation Working Group may consider any Joint Lessons Learned-related issue, additional areas of involvement will be Defence's performance measurement framework in support of operational evaluation, and the Asia Pacific Civil Military Centre of Excellence's development of a civil-military lessons framework. The evaluation of operational performance is being addressed through the development of Campaign Assessment processes under the leadership of the Chief of Joint Operations.

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[153] The O6 level is equivalent to an Army Colonel, Air Force Group Captain or Navy Captain.

Appendix 2:   Australian Federal Police response

1.   The AFP provided the following response to the audit report:

> The AFP welcomes the ANAO audit report on the *Australian Defence Force's Mechanisms for Learning from Operational Activities*. The AFP notes there are no specific recommendations for the AFP. The AFP accepts the findings in the report. As noted in the ANAO report, the AFP will continue working with Australian Defence Force counterparts to ensure best practice methods for monitoring and reporting of operational activities are shared.
>
> The AFP's International Deployment Group has the organisational lead for interoperability arrangements with the Australian Defence Force. In addition to giving effect to these arrangements through established working groups with the Australian Defence Force, as noted in the audit report the International Deployment Group has also built a strong working relationship with the Defence Science and Technology Organisation. The International Deployment Group will continue to exchange ideas and information with the Defence Science and Technology Organisation to support better understanding of the effect of the joint international operating environment, including examining options for joint measurement of performance where this might be possible.

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