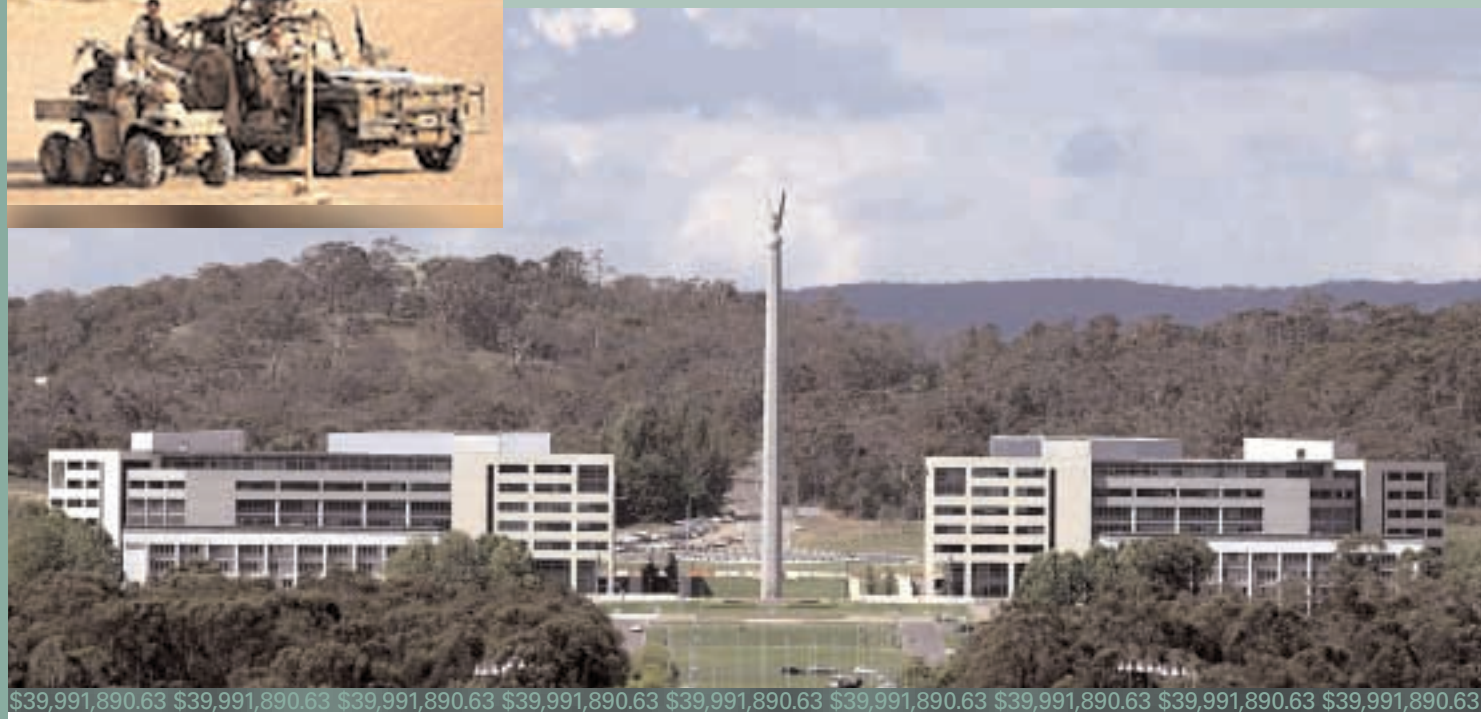
ASPI
AUSTRALIAN STRATEGIC POLICY INSTITUTE

The Cost of Defence

ASPI Defence Budget Brief 2002–2003



$39,991,890.63 $39,991,890.63 $39,991,890.63 $39,991,890.63 $39,991,890.63 $39,991,890.63 $39,991,890.63 $39,991,890.63 $39,991,890.63

Thirty nine million, nine hundred and ninety one thousand, eight hundred and ninety eight dollars and sixty three cents **per day**

The Cost of Defence
ASPI Defence Budget Brief 2002–03*

Thirty-nine million, nine hundred and ninety-one thousand, eight hundred and ninety-eight dollars and sixty-three cents per day.

Prepared by
Mark Thomson
Program Director
Budget and Management

Budget Brief Team:
John Donovan
Jenny Morison
Terry Smith
Derek Wolner

Top 22 Project Briefs
Complied by:

Gregor Ferguson
Daniel Cotterill
Tom Muir
Editor and Senor writers of Australian Defence Magazine

***This Quick Response version of the ASPI Defence Budget Brief has been prepared to assist early consideration of the Defence Budget, including the Senate Legislative Committee process. Preparation of the final version will be completed after Senate Legislative Committee hearings, and will take account of information provided in that forum.**

First published May 2002

Published in Australia by:
Australian Strategic Policy Institute (ASPI)
Level 2, Arts House, 40 Macquarie Street
Barton ACT 2600
Australia

Tel: + 61 (2) 6270 5100
Fax: + 61 (2) 6273 9566
Email: enquiries@aspi.org.au
Web: http://www.aspi.org.au

Cover pics courtesy of Department of Defence

Note on title

The figure of $39 991 898.63 represents one three-hundred-and-sixty-fifth of the total funds available to Defence for financial year 2002–03 exclusive of the capital use charge and payments back to Government. This does not include funds appropriated to the Defence Housing Authority nor those administered by Defence for various military superannuation schemes.

CONTENTS

'The strategic capability of Defence is built upon the quality of the operational and financial analysis of competing strategic options.'*

* Control Structures as part of the Audits of the Financial Statements of Major Commonwealth entities for the year ended 30 June 2001 para 4.83.

DIRECTOR'S INTRODUCTION

This is the first of what we at ASPI plan to be an annual series of Defence Budget Briefs. Our aim is to help inform discussion and scrutiny of the Defence budget. We believe this is worth doing for two reasons.

The first reason relates to the quality of public discussion of defence issues. One of ASPI's two key aims is to nourish public understanding of Australia's strategic and defence policy choices. All of those choices need to be made within a financial context: any discussion of policy options that is not firmly based in fiscal reality is a waste of time. Our public debate therefore needs to be supported by a good basic understanding of the size and shape of the Budget, and of the pressures on it.

The second reason relates to the value of contestability. ASPI aims to provide an alternative source of policy options and ideas for Government, injecting an element of contestability for the advice which come forward to Government from Defence and other agencies. This sort of contestability is as important in the arcane world of the Defence budgets it is in the more glamorous areas of strategic policy and force development.

Both public understanding and policy contestability are inhibited by the dense and perplexing nature of the Defence budget documentation. Few people inside Defence really understand the Defence Portfolio Budget Statements, and even fewer outside Defence can make any sense of it at all. Our task has been to try to make the main outlines of the defence budget clearer, to explain how much is being spent, what it being spent on, and what the pressures and problems are. We also venture some suggestions about how it could be more clearly and more fully presented.

In doing so, we sometimes criticise Defence financial management and the public presentation of the budget. That is part of our role. But, in fairness to the many talented and dedicated people who work on these issues in Defence, it is important to recognise the inherent complexity of the task. Few entities in Australia handle so much money, or spend it in such diverse and often unique ways. There is no easy model anywhere in the world for a simple and transparent set of defence accounts which allows the whole business of the organisation to be read at a glance.

And Defence must work within the wider Government budget policy. Some of the obscurity of the Defence budget can be blamed on the accrual accounting methods and the outputs and outcomes framework which the Government has adopted for the presentation of the budget across the whole Commonwealth. These initiatives have made the budget harder to understand in some ways, and their application to Defence is often a little artificial. But if properly used and well applied they can provide a useful and workable basis for the Defence budget; our reservations apply more to they way they have been applied than to the systems themselves.

The Defence Budget brief is aimed at two different audiences. Most of the material is intended for the non-specialist but well-informed reader; we hope the presentations will allow such a reader to understand the PBS and get a grip on the key budget issues facing Defence. Some material is intended for the more specialised analyst who wishes to delve more deeply into the byways of defence financial management. We

have aimed to clearly label this more arcane analysis to warn the non-specialist reader of what lies ahead.

We have produced this Quick Response Brief quickly, so that it is available to help inform scrutiny of the Defence budget in the parliamentary committee process. It is the result of intensive cooperative work by many people, mostly over the past two weeks. The main contributors are listed on the title page. Many others have helped by providing comments, offering advice, and checking facts. Our thanks to them all. My colleague Dr Mark Thomson, who is the Manager of ASPI's Budget and Management Program, has designed the Brief, done much of the research himself, and pulled the whole thing together in a very short time. I congratulate him on the result.

With so many contributors and helpers, consensus is impossible except at the price of blandness. So not all of those who have worked with us on this project would agree with all the judgements in the Brief. Responsibility for those judgements lies with me and Dr Thomson alone.

In an areas as complex as this we do not claim omniscience. We welcome comments corrections and suggestions as to how we can improve this Brief next year. They can be sent to us at ASPI via www.aspi.org.au.

Lastly we should acknowledge that we at ASPI are not disinterested observers of the Defence budget. Our funding from Government is provided through Defence.

Hugh White

Director

EXECUTIVE SUMMARY

How much are we spending?

Many figures have been given for the size of the Defence budget over the past two weeks. We believe that the most useful figure is $14,597,043. Defence spending will grow by around 2.5% from this year's outcome after asset sales and funds returned to Government are taken into account. This is on top of an increase of more than 12% last year. Defence spending will account for about 1.9% of GDP. This is predicted to fall over the next four years to close to 1.7% due to strong growth in Australia's GDP.

What are we spending extra money on?

The key focus of the new Defence Budget continues to be the implementation of the Defence White Paper. The firm commitment to sustained increases in Defence spending which the Government gave in the White Paper has largely been met in this budget. A portion [$150 million] of the $500 million increase scheduled for this year has been held over to next year, but this is unlikely to have any impact on the achievement of the Defence Capability Plan, and may simply reflect problems in progressing projects as quickly as the Plan envisaged.

The major new elements in this budget are, as expected, additional funding to support the war on terror and to enhance some capabilities to combat the increased risk of terrorism against Australia.

- The Government has conformed to the long-standing policy of providing extra funding to Defence to cover the genuine net additional cost of major operations. A sum of $199 million has been budgeted to support operations in and around Afghanistan, apparently based on a planning assumption that the current level of deployment will be sustained for the whole of the next financial year. Of course events may pan out very differently, especially if the US seeks a large Australian contribution to operations in Iraq.

- A total of $139 million will be spent in 2002-03 on a range of measures to improve Defence's capabilities to detect and respond to terrorist attacks directed against Australia, including improved intelligence capabilities, a second counter-terrorist assault team, and an enhanced capacity to respond to chemical, biological nuclear and radiological terrorist threats.

A much smaller sum of $22.3 million has been provided to fund increased border protection operations.

Savings and Efficiencies

The increases provided in the defence budget are offset by a number of savings initiatives that operate as, in effect, cuts to the Defence budget, of around $200 million. In addition to $100 million in efficiency savings for 2002-03 scheduled in the White Paper, there has been an extra measure of $97 million in savings imposed in this budget for redirection to operational requirements.

Financial Management

Recent budget papers show continuing large differences between planned and achieved financial performance in Defence, but many of these differences may only reflect problems with the introduction of accruals, and especially in setting the relative sizes of output appropriation and the equity injection appropriation. This is a serious issue that needs to be reviewed if the notion of 'price' is to be made useful.

Another issue is the growth of Defence's cash holdings. Over the current financial year Defence's cash holdings have grown much more than expected. The 2001-20 budget expected cash holdings to grow by around $80 million over the financial year, but they are now estimated to grow by over $400 million in the same period. Such a large *unplanned* growth in cash can hardly be explained by the need to hold reserves for contingencies or to cover accrued liabilities. It appears that Defence received a lot more money than they actually spent in the current financial year. Whatever the explanation, it is clear that Defence is not starved for funds.

Pressures on the Budget

Personnel

The PBS lists personnel shortfalls as a major source of risk to the delivery of Defence's outcomes over the coming year. In general the outlook for personnel funding in the coming financial year appears reasonable. The White Paper's funding included a generous provision for 2% annual real growth in personnel costs, which provides Defence with a significant cushion against rising per capita personnel costs. And $100 million earmarked within the Defence budget for personnel-related initiatives is going some way to respond to the conditions of service issues that remain a problem for uniformed personnel. Recruitment and retention trends have recently shown a slight improvement, so there seems reasonable grounds to think the current shortfalls will be addressed over time.

There remain some larger personnel issues in the longer term, however. Recent reports on the size of personnel shortfalls appear to indicate that, to fulfil the White Paper, Defence believes it will need significantly more people in uniform than the White Paper allowed for. Army for example seems to have a target of over 27,000 full time personnel for 2002-03, whereas the White Paper goal is for an Army of 26,000. Army is currently only just above 25,000 personnel. These differences could translate into real funding pressures if they cannot be resolved.

Operational Costs

Defence's routine operations costs are claimed to be subject to two paradoxically opposed pressures. One is the growing cost of operating old equipment, such as the F-111 and F-18 aircraft. The other is the growing cost of operating new equipment. Either way the long-term management of operations costs remains one of Defence's greatest challenges. The provision in the Budget of a special measure to spend an additional $20.9 million on munitions war stocks in 2002-03, paid for by moving funds from the capital investment program, suggests that there is short term funding pressure on this element of the budget. The issue is ultimately one of prioritization.

Capital Investment

On the basis of the PBS the Defence capital investment program appears to be generally meeting the schedule laid down in the White Paper for commencing new projects. Capital funding provided to Defence in the coming year will be adequate to maintain the momentum of investment inherent in the Defence Capability Plan.

We do not have comprehensive information on whether the program is meeting targets for cost or for entry into service for new systems, although clearly there remain a number of problems in this area. One key pressure point on the Defence budget in future years is the potential for increasing project costs to blow out the investment element of the Defence Capability Plan, forcing the Government to either cut back on capability goals or increase spending still further. Another possibility is that some old platforms like F-111s may need to be replaced much earlier than planned. That could blow a major hole in the defence budget over the next five years or so. And at the same time, as we have seen in this budget, investment remains an attractive piggy-bank to raid when other areas of the budget come under pressure. So the capacity to sustain discipline in the investment program will be a major factor determining whether the Defence Capability Plan can be delivered.

Options to Improve Transparency

The Defence PBS does not give much useful information about how the Defence budget is meant to be spent, and what we can expect to get for it. The application of the Government's outcomes and outputs framework to Defence does not provide much data. We propose that the PBS could be made much more useful by taking the following steps.

- Make the statement of Defence's intended outcome more substantive, preferably by giving more than one outcome.

- Provide data down to the level of Defence's 30 sub-outputs, instead of the six outputs now given, and provide more financial information and real performance targets for these sub-outputs.

- Provide financial and performance data for the Groups which really deliver Defence's products, as well as for the sub-outputs.

- Improve reporting on the investment program by providing comprehensive information including performance targets for the whole program.

- Provide more comprehensive information on personnel targets, recruitment and retention.

SECTION 1 – BACKGROUND

1.1 Strategic context for the budget

Probably not since World War II has Defence received so much attention on Budget night as it did on 14 May 2002. The Treasurer began in Parliament with comments about the Budget's defence and security context, and devoted about the first third of his Budget speech to these issues. Media coverage of the Budget naturally picked up this emphasis, and gave prominence to the measures it contained on defence and security.

Why all the fuss?

The immediate cause of all this attention is, of course, the events of 11 September 2001 and the operations now being undertaken by the ADF in Afghanistan under the banner of the war on terror. But the roots of the current high level of public attention to Defence, and to the Defence Budget, go a little deeper than that. Three other factors are at work.

The first is the increased level of public concern and policy focus on the problem of the numbers of people attempting unauthorised arrivals in Australia by boat. This is not, of course, a new problem, but it is receiving unprecedented attention, partly at least because of the ways in which this issue and anxiety about the increased threat of terrorism after 11 September resonate with one another in the public mind. And the ADF's contribution to managing the problem has received a lot of attention in its own right.

Second, attention to Defence spending was raised in 2000 by the Government's major defence policy review process, which culminated in the Defence White Paper published in December of that year. The Government made the long-term level of Defence spending a prominent element in the public debate that led up to the White Paper, and the document itself was unprecedentedly robust in committing the Government to a long-term funding profile for Defence. Interest in the Defence budget has been sustained since then because the Government set itself a demanding set of benchmarks for increased defence spending over the entire decade. There is a natural media interest in whether the Government lives up to its promises on this.

Third, the ADF's operations in East Timor in 1999 continue to cast a long shadow over public thinking on Defence issues, and have had a durable affect on the level of public interest and engagement in defence funding questions. East Timor had a big impact on the White Paper, including on the level of public interest and participation in the process. But its influence goes beyond that. The events of 1999 stand as a durable reminder that our Defence forces can be called upon to do unexpected tasks at short notice, close to home, and in which major national interests are directly engaged. Two years before 11 September, it marked the end of Australia's post Cold War innocence.

What has changed?

In the past eight months it has often been said that the whole world changed on 11 September, and the Treasurer said as much again in his Budget speech. The

Government's Defence Budget for the coming financial year does not bear this out. It is above all a Budget devoted to the implementation of the long-term program of defence capability development which was set out in the 2000 White Paper and the associated Defence Capability Plan.

The 2002–03 PBS makes this clear at the start, where it says [p.3] that the strategic principles set out in the White Paper remain a valid framework for addressing Australia's Defence policy, and describes it [p.7] as providing the Government's long-term security and capability development framework for Defence.

This means the 2002–03 Defence Budget is a conservative measure, primarily concerned with sticking to the policies and achieving the long-term goals the Government set itself two years ago. Those policies and goals are well-summarised in the first section of the PBS [pp.3–10], in language generally drawn directly from the White Paper itself.

This is surely sensible. It may be that the events of 11 September will have a long-term impact on Australia's strategic and security environment, but it is too early to tell yet one way or the other. It is certainly too early to say what exactly those effects will be, and how Australia's policies and defence capabilities might need to change to meet them.

The Government has apparently decided to defer any major overhaul of defence policy and capability plans until after an annual strategic review which is to be produced over the next few months. That review will obviously cover the significance for Australia's defence policy of the attacks of 11 September themselves and the consequent perception of an increased threat from terrorism. But it will also need to address other questions, including any lessons to be drawn for our own forces from the operations of the war on terror in Afghanistan, and the implications for us of the long-term affect of the attacks on US approaches and policies, including US expectations of allies.

The Government will also need to address the wider security questions raised by 11 September, which brought new prominence to the enduring truism that there is a lot more to national security than defence policy, and that many security issues which the Government must deal with are not necessarily best met through the use of defence forces. Either in the Defence Annual Strategic Review or in some other process the Government will need to bring the different elements of their response to threats like terrorism together.

What has been done?

Against this background, the Government has faced three key strategic questions in framing the 2002–03 Defence Budget.

The first and most important question has been whether to maintain the sustained increase in Defence funding required to implement the Defence Capability Plan, and which was promised in the White Paper. That question has been answered strongly in the affirmative. This Budget Brief concludes that the Government has adequately funded Defence to maintain the Defence Capability Plan, in line with the funding parameters agreed in 2000.

We maintain this conclusion notwithstanding the curious decision to defer $150 million of the expected White Paper funding increase from 2002–03 to the following year. As long as it is provided next year, this will have little practical impact on the delivery of the Defence Capability Plan. The most likely explanation for the deferral is probably that the Government decided Defence couldn't move investment projects fast enough to spend it in the coming year.

The second key strategic question in this year's Defence budget has been how to fund the small number of new initiatives which have been taken to respond to increased perceptions of risk from terrorism. The Government provided some extra funding in the Additional Estimates in March 2002, but it has decided to provide Defence some more in the coming financial year to undertake a range of measures, most of which were announced or foreshadowed last year. These are explained in more detail at Section 2.1.

The third key question has been how to fund the costs of operations undertaken in the war on terror and the much more modest costs of the border protection operations. This should never have been much of an issue. Governments for decades have maintained a policy that Defence is given extra funding to cover the genuine net additional costs of operations. During the election campaign last year some doubt arose about whether this principle would be maintained. Not surprisingly the Government has stuck with it, because no other approach to funding the inherently unpredictable costs of operations makes administrative or financial sense.

Compared to the expenses involved in implementing the long-term Defence Capability Plan, or indeed in continuing to compensate the Defence budget for adverse movements in exchange rates, the sums of money involved in these two last sets of decisions are not great. They may, in retrospect, appear only a modest down-payment to the Government's response to 11 September. That depends a lot on what happens next.

What are the risks?

Two major risks to the current Defence budget are now discernable, which could throw the Government's calculations about our current and future defence-funding needs into doubt.

The first is the future direction of the war on terror. The Government has budgeted on the basis that our current levels of contribution in and around Afghanistan will continue for the whole of the coming financial year. That is a possible outcome, but far from the most likely. It may be equally probable that by this time next year we will be deeply engaged in supporting our US allies in a major land war in Iraq aimed at removing Saddam Hussein or installing some successor. There are in fact many doubts about whether the US will undertake such a campaign, and no Australian decision appears to have been made about whether to help. But if we did, it could be on a much larger scale than in Afghanistan, where our contribution remains rather modest. This is less a problem for Defence than for the Government, assuming that it continues to provide extra money to cover the costs of such operations. But for the Government it could be a significant fiscal issue, depending on how big a contribution we decided to make.

The second major risk is both bigger and more probable. It arises from the potential for major problems to arise in the implementation of the Defence Capability Plan. For example, the plan foreshadows that we can upgrade our F-18 and F-111 combat aircraft – so putting off replacement for a decade. If this proves impractical, as some now fear, the Defence Budget will face pressures over the next few years which will dwarf the impact of 11 September.

And last, we must always pay proper attention in the defence business to the probability that unexpected events will intervene to disrupt the best-laid plans. Major strategic surprises seem to come along on average about once every two years. Next year's Defence Budget could be overshadowed by something we haven't heard of yet.

1.2 Defence organisation and management

Commonwealth outcomes and outputs framework

The Defence budget is set out in the Budget papers according to a framework of outcomes and outputs. This framework was introduced by the Commonwealth in 1999, and is applied to all Commonwealth agencies. It works like this:

- **Outcomes** are the results or benefits that the Commonwealth aims to deliver to the community through the work of its agencies. They are specified for each agency, and are meant to express the purpose or goal of each agency's activities.
- **Outputs** are the goods and services that each agency produces to achieve its outcomes.

Under the framework, the performance of agencies is measured to assess both how much output they are generating, and the extent to which that output is actually delivering the outcomes intended. So the aim is to show not only how much an agency is *doing*, but how much it is actually *achieving.*

The outcomes and outputs framework is not just an accounting device. It is intended to provide a structure for management decision-making and resource allocation throughout Commonwealth agencies. So the way the framework is applied in an agency like Defence is very important to its management and performance.

The Defence outcome

The key to the effective application of the framework is the specification of the outcome or outcomes. The Government has set down only one outcome for Defence in this budget. It is *The Defence of Australia and its National Interests.*

This formulation, which was adopted in last year's budget, is hard to argue with. But it is very broad. In fact it is even broader and less specific than the formulation it replaced, which was *The Prevention or Defeat of Armed Attack against Australia or its Interests*. The change was made, according to last year's Defence Portfolio Budget Statement (PBS), to better reflect the general requirements for the defence of Australia in a complex, modern strategic environment and, in particular, the fact that activity inimical to Australia's security and national interests may not necessarily involve the use of armed force.

All true enough. But the Government's present outcome statement is so generalised that it is hard to use it as a basis for measuring the effectiveness of Defence's outputs or to provide a focus for Defence management. How can we judge how well Defence's outputs have contributed to the defence of Australia and its national interests?

The problem may arise from the attempt to capture the whole purpose of Defence in a single sentence. Other Commonwealth agencies have multiple outcomes. The Department of Foreign Affairs and Trade, for example, has four separate outcomes.

So it might be better to stipulate several Defence outcomes. They might for example include:

- having armed forces ready for operations to meet Australia's needs;
- the successful conduct of military operations as directed by government; and
- maintenance of a favourable strategic environment.

Defence outputs

The government identifies the following six Defence outputs in this year's Budget:

Output 1 – Defence Operations

Output 2 – Navy Capabilities

Output 3 – Army Capabilities

Output 4 – Air Force Capabilities

Output 5 – Strategic Policy

Output 6 – Intelligence

This way of identifying the Defence outputs reflects the fact that most of what Defence actually does is to provide military capabilities to the government. These capabilities are captured as Outputs 2, 3 and 4. Together they account for 90% of the money provided to Defence by government for its outputs. The other key activities of Defence are to conduct military operations with these capabilities – Output 1 – and to provide advice and intelligence – Outputs 5 and 6.

The presentation of Defence outputs has changed each year since the outcomes and outputs framework was introduced in 1999. The most important change was made in the 2000–01 budget papers. Before then, Defence had twenty-two separate outputs which allowed each major type of capability to be represented separately, and provided a great deal of information about the way resources were allocated within Defence to the different types of forces.

In 2000–01 the presentation of outputs was cut to only five. This simplified the presentation of the budget, but provided much less information about the allocation of resources within Defence, and has made it hard to judge the cost-effectiveness of different types of capability in contributing to our strategic objectives.

From 2001–02 a sixth output has been separately identified, covering intelligence. It is not clear why this has been done – usually governments are keener to hide the level of intelligence spending rather than to advertise it. That at least shows that there should be no security reason not to return to identifying other types of capability as separate outputs.

The twenty-odd different elements of military capability in the ADF are now characterised as sub-outputs. The budget papers do not provide resource or performance data on these sub-outputs, and this information is not available publicly elsewhere. There has therefore been a sharp decline in transparency of Defence resource management and output performance in recent years.

But we can at least attempt to trace the evolution of the outputs over the past few years. Table 1.2.1 tracks the outputs from 1999–2000 to the present.

Table 1.2.1 – Defence outputs: 1999–2000 to 2002–03

Output category	1999–2000	2000–2001	2001–2002 and 2002–2003
Defence operations	Output 1: Command of Operations Output 6: Military Geographic Information Output 20: Effective International Defence Relationships and Contribution to International Activities Output 21: Effective Contribution to National Support Tasks	Output 1: Defence Operations including: • Command of Operations • ADF Military Operations • Military Geospatial Information • International Activities and Regional Engagement • National Support Tasks	Output 1: Defence Operations including: • Command of Operations • Current ADF Operations
Navy capabilities	Output 3: Capability for Major Surface Combatant Operations Output 4: Capability for Patrol Boat Operations Output 5: Capability for Submarine Operations Output 7: Capability for Afloat Support Output 8: Capability for Mine Countermeasures and Mining Output 9: Capability for Amphibious Lift	Output 2: Navy Capabilities, including for: • Major Surface Combatant Operations • Naval Aviation Operations • Patrol Boat Operations • Submarine Operations • Afloat Support • Mine Warfare • Amphibious Lift	Output 2: Navy Capabilities including: • Major Surface Combatants • Naval Aviation • Patrol Boats • Submarines • Afloat Support • Amphibious Lift • Mine Warfare • Hydrographic, oceanographic and meteorological support
Army capabilities	Output 10: Capability for Special Forces Operations Output 11: Capability for Land Task Forces Operations Output 12: Capability for Logistic Support of Land Operations Output 15: Capability for Ground based Air Defence	Output 3: Army Capabilities including for: • Special Forces Operations • Mechanised Operations • Light Infantry Operations • Army Aviation Operations • Combat Support to Land Operations, includes Ground-based Air Defence • Motorised Infantry Operations • Protective and Security Operations	Output 3: Army Capabilities including: • Special Forces • Mechanised Forces • Light Infantry • Army Aviation • Ground-based Air Defence • Combat Support • Regional Surveillance • Operational Logistic Support • Motorised Infantry • Protective Operations
Air Force capabilities	Output 13: Capability for Air Strike/Reconnaissance Output 14: Capability for Tactical Fighter Operations Output 16: Capability for Strategic Surveillance Output 17: Capability for Maritime Patrol Aircraft Operations Output 18: Capability for Airlift Output 19: Capability for Combat Support of Air	Output 4: Air Force Capabilities including for: • Air Strike/ Reconnaissance • Tactical Fighter Operations • Strategic Surveillance • Maritime Patrol Aircraft Operations • Air Lift Combat Support of Air Operations	Output 4: Air Force Capabilities including: • Air Combat, including Air Strike/ Reconnaissance and Tactical Fighter Operations • Strategic Surveillance • Maritime Patrol • Air Lift • Combat Support for Air Operations

	Operations		[For 2001–02, Air Strike and Tactical Fighter were separate sub-outputs]
Policy advice	Output 2: Strategic Intelligence Output 22: Strategic Policy and Direction	Output 5: Policy Advice including: • Strategic Intelligence • Strategic Policy and Direction • International Defence Policy, including management of Defence Cooperation program	Output 5: Strategic Policy including: • Strategic policy advice to Government • Strategic policy guidance to other areas of Defence • Management of the Defence Cooperation Program
			Output 6: Intelligence including: • To inform Defence and government policy • To support ADF operations • To underpin the development of future ADF capabilities
	As presented in Defence Annual Report 1999–2000	As presented in Defence Annual Report 2000–2001	As presented in Defence Portfolio Budget Statements 2001–02 and 2002–03.

Apart from the major change described above, there have been a number of minor adjustments, which complicate the picture. These include a number of changes to the treatment of intelligence, changes to the treatment of land force outputs, and changes to the treatment of the hydrographic function. These and other variations are not always apparent in the Budget papers, so the comparison of output figures from year to year is very difficult. This further reduces transparency.

Figure 1.2.1 presents our best effort to track the trends in the prices of Defence's outputs since 1999.

Figure 1.2.1 – Price of Defence outputs: 1999–2000 to 2002–03

	1999–2000		2000–2001		2001–2002 (a)		2002–2003 (b)	
	Price ($m)	%	Price ($m)	%	Price ($m)	%	Price ($m)	%
Output 1	1 102	7	1 353	8	1 156	6	1 151	6
Output 2	4 421	29	5 216	29	5 684	33	5 797	32
Output 3	4 576	30	4 758	27	5 070	28	5 192	28
Output 4	4 551	30	5 676	32	5 361	30	5 477	30
Output 5	193	1	719	4	192	1	176	1
Output 6	371	2			397	2	442	2
Total (c)	15 214	100	17 722	100	17 859	100	18 235	100

(a) Projected result

(b) Budget estimate

(c) Includes Capital Use Charge – $5056 million in 2002–03

They need to be treated with caution, because:

- the scope of each output has changed with changes to the output structure described above;
- there are a number of accounting variations across the period. Before 2001–02 Defence provided figures on costs (expenses plus capital use charge) whereas later figures are for price (revenues);
- new accounting rules for the attribution of costs to outputs will have changed the figures, without affecting the real flow of resources;
- as the implementation of accruals has progressed, asset values have been refined, which has changed expenses in some areas, again without any impact on the real allocation of resources;
- expenses have varied with changes to the rate of the capital use charge; and
- the addition of extra funding for East Timor operations has also affected the figures in some respects.

All of this means that the price figures provided in the PBS for Defence's outputs are pretty meaningless for comparative purposes. The best that can be concluded is that broadly there has been little variation in the relative levels of funding to different Defence outputs, except for the additional money provided for East Timor operations.

Performance targets and measurement for outcomes and outputs

A key purpose of the outcomes and outputs framework is to provide a basis for setting targets and measuring performance. The Defence outputs and outcomes framework does not offer much in this regard.

As mentioned earlier, the Defence outcome is very broad and general. The criteria set out in the PBS for evaluating the level of achievement of the outcome are correspondingly vague. In fact there are no effectiveness measures provided in the PBS for the Defence outcome. This is a serious deficiency in the implementation of the whole outcomes and outputs framework.

The performance targets and measurement criteria for the Defence outputs in the PBS are analysed in some detail in Section 2. In essence the output targets are not provided in the PBS. There is reference to performance information being derived from the Defence Financial and Management Plan, but this is a classified document. This means there is no way for the public to judge what Defence is expected to deliver, and what it has actually delivered. This is a further serious deficiency in the implementation of the outputs and outcomes framework.

A recent Australian National Audit Office (ANAO) report said that Defence was working to remedy these deficiencies in time for this year's PBS, but no progress is evident in the papers.

Alignment of outcomes, outputs and strategies

Under the outcomes and outputs framework, the linkages between outcomes, outputs and the day-to-day activities and processes of an agency are made by what are called

– a little confusingly in the Defence context – strategies. These strategies are intended to show how the framework fits together. Defence has put a lot of effort over the past two years into the development of a Strategy Map for the organisation, and on becoming what it calls a strategy-focused organisation.

The results of this work have been captured in the Figure reproduced at the send of this section.

This work is, in turn, part of a wider set of management reform initiatives which include the development of an overall Defence Financial and Management Plan and the introduction of balanced scorecard and plan-on-a-page management tools throughout Defence.

It may be too early to judge what impact this work has had or will have on the way Defence does business. There is little evidence in the PBS of any direct effect on the planning or reporting on the performance of the organisation.

Defence's outputs and its organisational structure

The traditional concept of Defence's organisational structure is that it consists of three Services – Army, Navy and Air Force – and the Department of Defence. This impression is reinforced by the output structure, focused as it is on Army, Navy and Air Force capability outputs. But, in fact, the Defence organisation is not organised like this at all. It is divided into fourteen 'Groups'; these are the entities between which the Defence budget is divided. The arrangement of these Groups is set out in the accompanying Figure1.2.1, taken from this year's PBS.

Figure 1.2.1

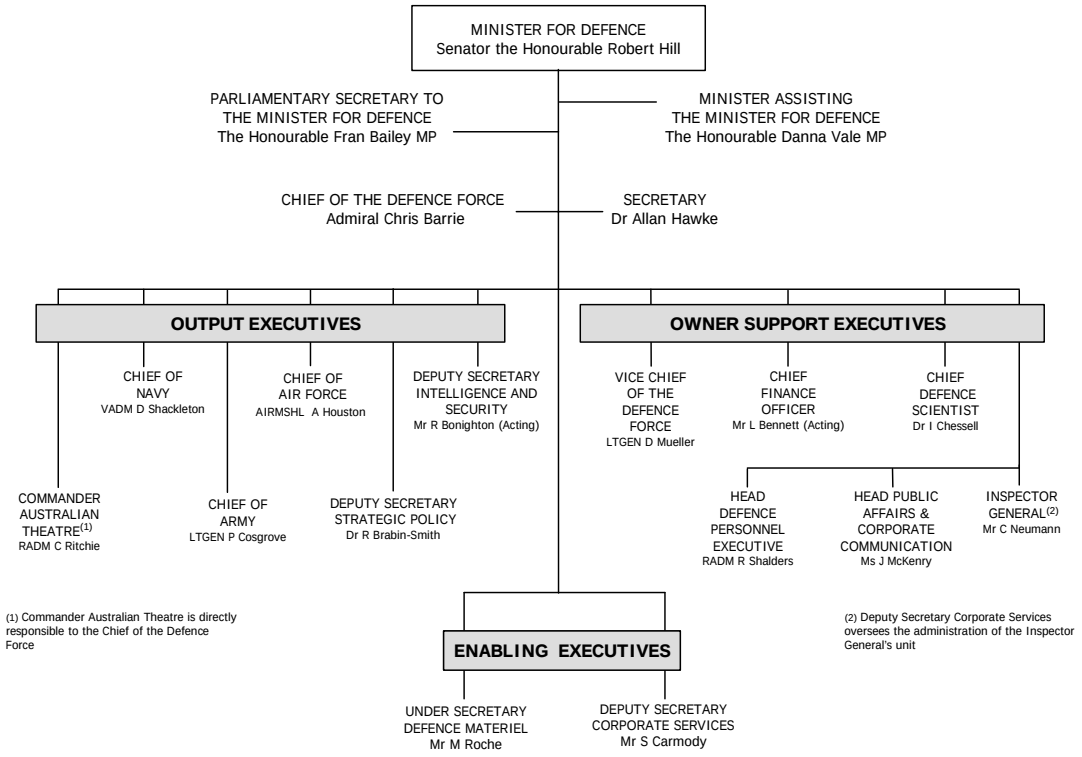
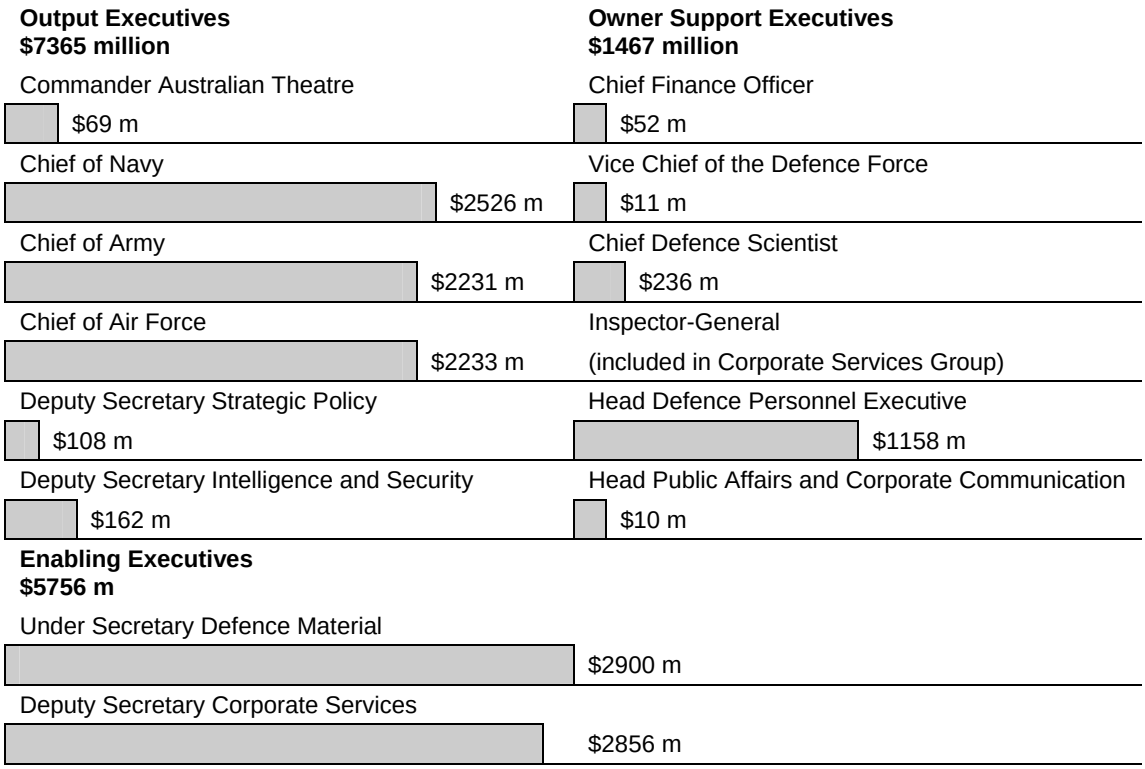


Figure 1.2.2 shows the Groups divided into three categories:

- **Output Executives Groups** are (mostly) responsible for delivering Defence's outputs to the government as customer;
- **Owner Support Executives Groups** are responsible for protecting the Government's interest as the owner of Defence, including ensuring its long-term viability; and
- **Enabling Executives Groups** are responsible for providing business services such as asset management to the other two types of groups.

Figure 1.2.2 Indicative group funding (based on 1999–2000 Budget (For then price of outputs of $14 587 million)



Note: All Figures from 1999–2000 Budget inclusive of the Capital Use Charge (net figures are not available). These figures do not include the capital budget of $3578 billion that was used by the Defence Material Organisation and Corporate Services Groups for capital investment in equipment and facilities. Some changes, such as the shift between the Personnel Executive and Corporate Services, have not been included because no public data exists.

These Groups and their executives are responsible for spending Defence's money and doing its business. But there is no clear mapping of the Groups to the outputs. Nor does the PBS provide data on how Defence's resources are divided between the Groups. This is a significant inhibition to our understanding of Defence's resource management.

Such information was published until 1999–2000. Since then the Groups have been reorganised, but using the 1999–2000 data we have ventured a rough estimate of the share of the Defence budget that each of the Groups in today's Defence organisation receives.

The information in Figure 1.2.2 shows that, of the 1999–2000 Budget Estimate of $14 587.7 million for the price of outputs, the estimated allocations to Groups was roughly equivalent to those in Defence's current organisational structure and would have been:

Output Executives Groups – $7365 million or about 50% of the price of outputs;

Owner Support Executives Groups – $1467 million or about 10% of the price of outputs; and

Enabling Executives Groups – $5756 million or about 40% of the price of outputs.

This suggests that, of the $18 235 million that Defence receives from Government in 2002–03 as the price of its outputs, the proportions managed by each of the executives heading the Groups, as a rough estimate, might be:

Under Secretary Defence Materiel and Deputy Secretary Corporate Services – around 20% (or about $3.6 billion) each.

In addition to these operating budgets, these executives manage a capital budget of around $3.6 billion for capital investment in equipment and facilities.

Chief of Navy – around 18% (or about $3.3 billion)

Chief of Army and Chief of Air Force – around 15% (or about $2.7 billion) each

Head, Defence Personnel Executive – around 8% (or about $1.4 billion)

Chief Defence Scientist – around 2% (or about $400 million)

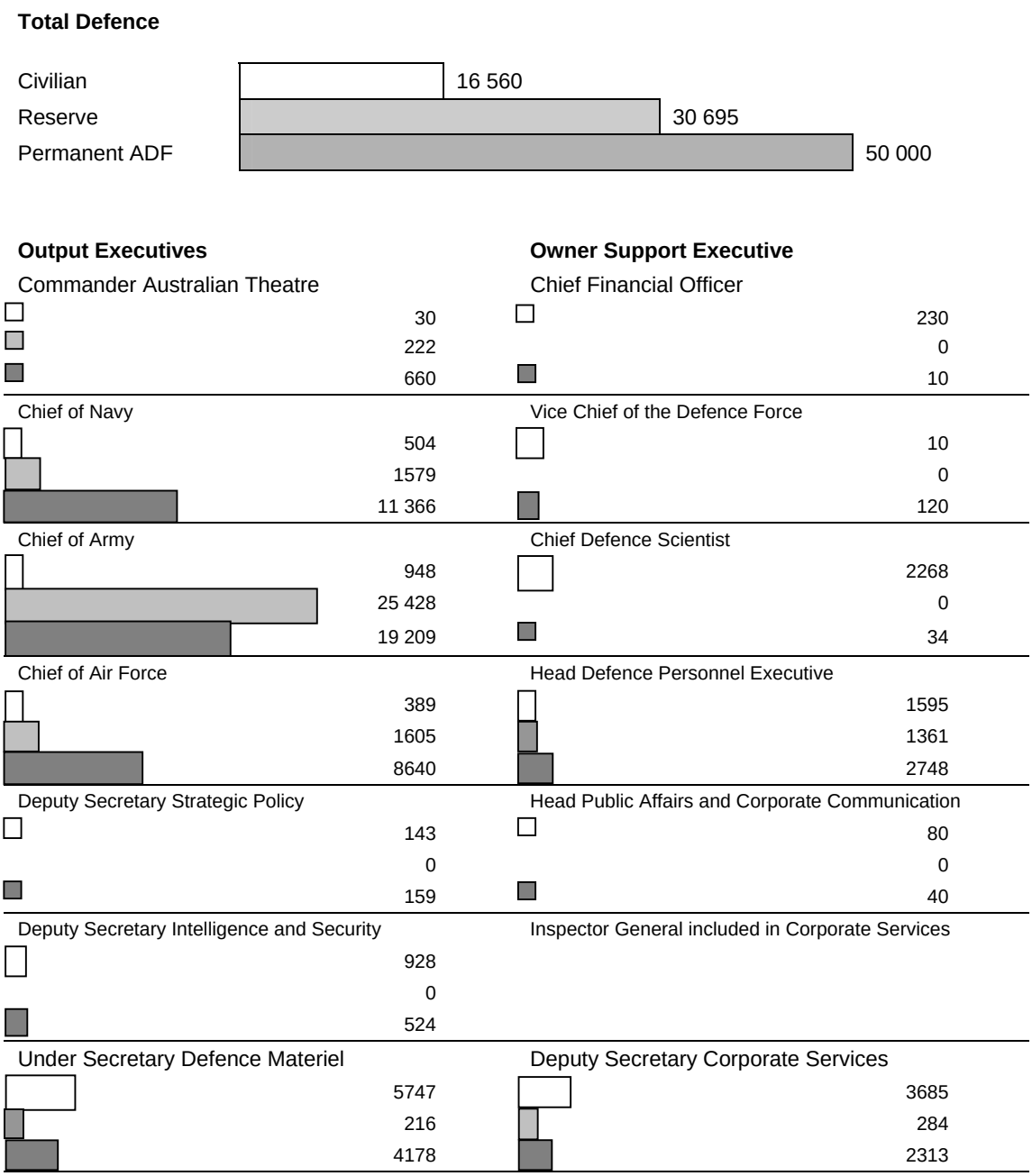
Commander, Australian Theatre; Deputy Secretary Strategy; Deputy Secretary Intelligence and Security; Chief Finance Officer; Vice Chief of the Defence Force; and Head, Public Affairs and Corporate Communications – variously between less than half a percent to around 1% each (or between about $10 million and $200 million each).

Similarly, Defence no longer publishes the number of people employed by each group. We have made a rough estimate using information published in the Defence Portfolio Budget Statements 1999–2000, and mapping as best we can the then fourteen Groups to Defence's current organisational structure. This provides a rough guide to what the distribution of the 1999–2000 Budget Estimate of 97 255 (total staffing) would have been to Group's equivalent to those under current arrangements.

In the absence of official numbers, Figure 1.2.3 provides our best guide to the disposition of Permanent Forces, Reserves and Civilians to the various Groups.

Some caution is needed in trying to extrapolate from the information in Figure 1.2.3 to derive a similar picture for 2002–03. There have been some significant changes in the numbers since the 1999–2000 Budget Estimates including; Permanent Forces numbers have increased from 50,000 to 51,323, Reserves have decreased in number from 30,615 to 20,018, and Civilian staff numbers have increased from 16,560 to 17,325.

Figure 1.2.3 Estimated distribution of personnel by groups: 1999–2000 budget estimate



We have not, therefore, ventured to provide an estimate of the staffing levels for each of the Groups in 2002–03. We have stayed at a broader level. Our estimates are that of the total estimated Defence personnel numbers of 88 666 budgeted for 2002–03:

- Output Executives Groups account for around 74% of Defence personnel (roughly 66 000) directly in the delivery of outputs;
- Owner Support Executives Groups account for around 9% of Defence personnel (roughly 8000); and
- Enabling Executives Groups account for around 17% of Defence personnel (roughly 15 000).

Further, based on information that is in the public domain, we estimate that for the Enabling Executive Groups:

- Under Secretary Defence Materiel is expected to employ between 8000 and 9000 personnel in 2002–03; and
- Deputy Secretary Corporate Services is expected to employ between 5000 and 6000 personnel in 2002–03.

In Section 4 we discuss options for making the PBS more transparent including with regard to Group and Output information.

SECTION 2 – DEFENCE BUDGET 2002–03 PBS EXPLAINED

Introduction

The 129 pages of the 2002–03 Defence Portfolio Budget Statements (PBS) sets out the Government's plan for the expenditure of over $14 billion by Defence in the coming financial year.

This guide attempts to explain and, where possible, analyse the information in the PBS. The approach adopted has been to skim over those parts of the PBS that are relatively clear, and to focus on those areas where explanation might be useful. Some of the material is unavoidably technical due to the disciplines and complexities of accounting. However, it is not necessary to read the document as a whole or in sequence to gain insight. Every attempt has been made to enable the reader to jump into a section and gain an improved insight into the PBS.

Those portions of the brief containing technical analysis are marked as **IN-DEPTH ANALYSIS** to warn the casual reader.

This brief does not cover the Defence Housing Authority (DHA) component of the PBS.

Most parts of the guide are best read with the PBS at hand. Copies can be down-loaded from the web at <http://www.defence.gov.au/budget/>.

The 2002–03 Defence Portfolio Budget Statement

Section 2. 1: Overview [PBS Chapter 1]

The most important part of Chapter 1 of the Defence PBS is the section headed 'Resourcing', pp.13–24. This sets out how much money Defence is going to get. Earlier parts of Chapter 1 provide a summary of the Government's defence policy and the strategic setting of the budget, which is discussed in Section 1.1 of this brief, and an organisational chart, which is addressed in Section 1.2

How much money will Defence get?

With the Resourcing overview on p.13 of the PBS, we get to the heart of the issue. But oddly enough, we are not given a figure for the size of the Defence budget. We are told that total 'Defence Resourcing' for 2002–03 will be $22 518 million. But that is a highly artificial figure. It includes a lot of money that Defence will never see:

- over $5 billion will be deducted for the Capital Use Charge, which is an accounting device we will explain later; and
- another $2.2 billion is what are called administered funds, which is money that passes thought Defence hands only to be paid directly to others. In Defence's case this covers payments under military superannuation schemes.

The Defence Minister, in his press statement the day after the Budget, gave a figure of $14.3 billion for 'Defence Funding'. That excludes both the administered funds and

the Capital Use Charge. But that figure too fails to take account of a number of important additions to and subtractions from the money Defence will actually have available in the coming year.

The Commonwealth Budget Papers give a variety of different figures including $13.14 billion for 'General Government Expenses by Function', $15.67 billion for 'General Government Expenses by Agency', $13.46 billion for 'Departmental Expenses by Agency', $18.24 billion for 'Appropriation' and $17.85 billion for 'Available Appropriation'.

And the Budget Overview gave a figure of $14.1 billion for 'Defence Spending' which appears in neither the Defence PBS nor the Budget Papers.

The various Treasury figures are different representations of the same base figures. They are all useful in one way or another for either economic or financial planning. And they can be reconciled with the information in the Defence PBS although this can take a bit of work. They are a necessary artefact of constructing the Budget.

Finance advises that the figure of $14.1 billion in the Budget Overview paper is the total net impact of Defence spending on the underlying cash balance in 2002–03.

We have done our own calculations based on the published figures. Our aim has been to find the most credible figure for the actual sum of money available to Defence to spend this year. Our conclusion is that Defence funding for 2002–03 will be $14 597 043 000.This is the amount of money that Defence will have available to deliver the Government's White Paper goals. The basis of this calculation is set in Table 2.1.1. The key elements of this table are:

- **The Output Appropriation:** In 2002–03 the Government will appropriate $18 235 million towards the price of the Defence Outputs. This is called the 'Price to Government of Defence's Outputs' in PBS Table 1.3. A discussion of the notion of price appears in Section 1.
- **Equity Injection:** In 2002–03 the Government will appropriate $1 090 million to supplement the capital budget for investment including specialist military equipment ($3 587 million) and land and buildings ($221 million).
- **Capital Use Charge:** The Government levies a Capital Use Charge to recognise the 'cost of capital' tied up in Defence's $45.4 billion of net assets (as 11% of opening net assets adjusted for equity injection). It is funded through the output appropriation. The Capital Use Charge does not appear in PBS Table 1.2 but can be found in the financial statements PBS Tables 3.1, 3.3 and 3.4. The actual amount paid to the Government in 2002–03 will be $5056 million.
- **Capital Withdrawal:** The Government will take receive $660 million through a capital withdrawal in 2002–03. This is the mechanism through which the Government as owner takes back some of its equity in Defence. This is usually used when assets like property are sold. The capital withdrawal appears within the financial statements PBS Tables 3.3 and 3.4.
- **Own Source Revenues:** In 200–03 Defence is budgeted to raise $287 million of 'own source' revenue. In 2000–01 this included $34 million in interest and dividends, $102 million in housing rentals, $33 million in rations and quarters

charged to personnel, $41 million from payments from foreign governments, and another $57 million from other goods and services.

- **Capital Receipts:** In 2002–03 Defence will receive $700 million from the sale of assets (mainly buildings and property). Similar high targets in the past two years have failed. The 200–01 target of $820 million yielded only $87 million, and the 2001–02 target of $1023 million was revised down to $199 million. Defence will only retain about $40 million of the sales, and the Government will get $660 million through the capital withdrawal.
- **Administered Revenues:** These are 'administered' resources that Defence simply passes on the military superannuation schemes with no discretion.

Table 2.1.1: Defence resourcing

Departmental Resourcing (exclusive of administered funds)	**Previous estimate 2002–03 $'000**	**Budget estimate 2002–03 $'000**	**Difference $'000**
What Net Resources will the Government give Defence?			
Departmental Appropriations			
Output Appropriation	17 700 714	18 235 351	534 637
Equity Injection	882 610	1 090 415	207 805
Less: Returns to Government			
Capital Use Charge	–4 759 829	–5 056 094	296 265
Appropriation Net of Capital Use Charge*	**13 823 495**	**14 269 672**	**446,117**
Capital Withdrawal	–775 548	–659 500	–116 048
Net Government Receipts (Departmental)	**13 047 947**	**13 610 172**	**562 225**
What Net Resources does Defence have available?			
Net Government Resourcing			
Net Departmental Government Receipts	13 047 947	13 610 172	562 225
Plus: Departmental Resourcing			
Own-Source Revenues	288 163	287 105	–1 058
Capital Receipts	868 814	699 766	–169 048
Total Resourcing (Departmental)	**14 204 924**	**14 597 043**	**392 119**
Administered Resourcing			
Administered Revenues from Government	2 200 181	2 205 881	5 700

Note: Own source revenues and capital receipts do not equal receipts from independent sources [PBS Table 1.4] due to GST and accrual effects.
* The figure quoted by the Defence Minister in his budget press release

The complexity of this table arises from the fact that Defence receives funding in a number of different ways, and pays money back to Government in several way as well. The interaction of these elements in making up the Defence budget are perhaps more clearly explained as follows.

The Government purchases six outputs from Defence. The price they pay for these outputs is the Output Appropriation. Additional funding for the outputs comes from Defence's own source revenues so that:

Revenue for Outputs $18 522 million	=	Output Price $18 235 million	+	Own-sourced revenue $287 million

Defence also receives funds to invest in capital assets. This comes from the Government's equity injection and from the proceeds of sales of existing assets called capital receipts:

Gross resources going to Defence $20 312 million	=	Revenue for Outputs $18 522 million	+	Equity Injection $1 090 million	+	Capital Receipts $700 million

However, actual resources available to Defence are somewhat less that the gross amount because of the payments that are made back to the Government for the capital use charge and through the capital withdrawal:

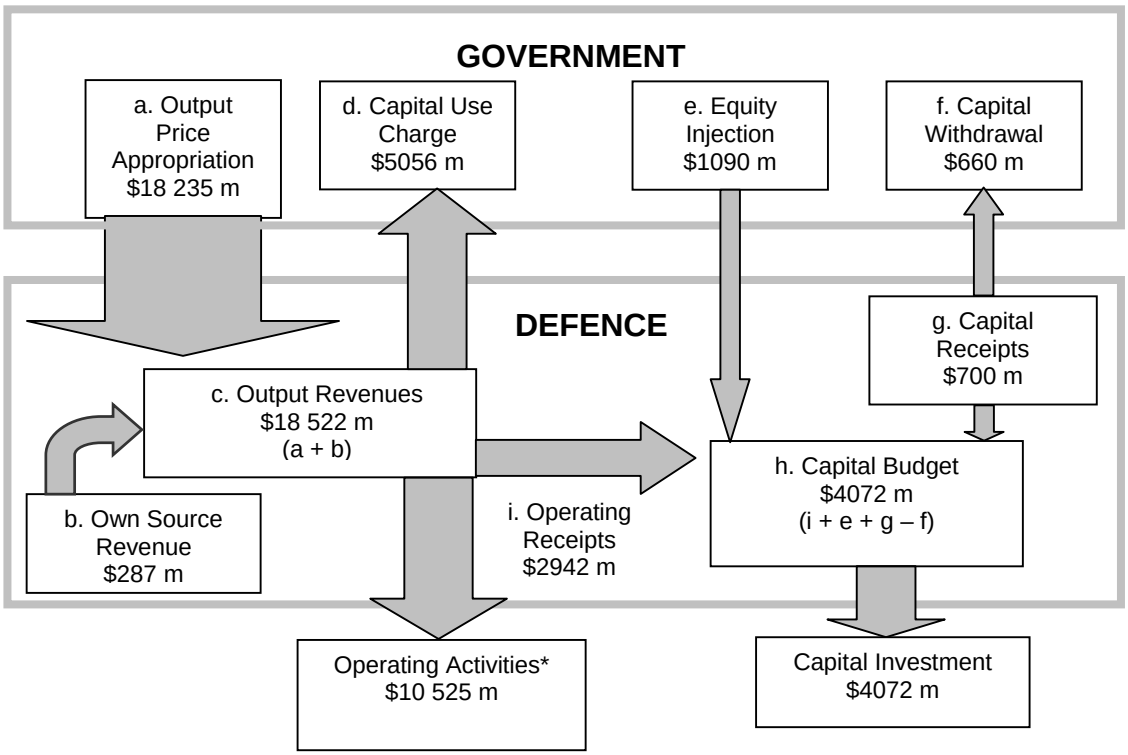
Net resources available to Defence $14 596 million	=	Gross resources available to Defence $20 312 million	–	Capital Use Charge $5056 million	–	Capital Withdrawal $660 million

The net resources received by Defence from the Government are in fact less that the net amount available to Defence due to the presence of own source revenues for the outputs ($287 million) and capital receipts ($700 million). The net resources from Government are:

Net resources from Government $13 610 million	=	Output Appropriation $18 235 million	+	Equity Injection $1090 million	–	Capital Charge $5056 million	–	Capital Withdrawal $660 million

Figure 2.1.1 shows the flows of these resources between the Government and Defence. This makes clear the linkage between output revenues and the capital budget via operating receipts. The operating receipts include the left over cash from output revenue (price) due to non-cash expenses like depreciation and inventory consumption. Figure 2.1.2 explains PBS Table 1.2 and shows how our figures can be reconciled with that table.

Figure 2.1.1 Defence Funding Schematic



*This is not exact because of timing effects and changes to the cash in the bank between the start and end of the year. Also, we have removed the skew in cash flow due to GST that Defence pays and then is refunded for.

Figure 2.1.2 Defence resourcing [PBS Table 1.2]

The price Government appropriates for the six Defence outputs.

Income from non-Government sources mainly housing rentals and rations and quarters paid by ADF members, and cash paid by foreign Governments for goods and services.

PBS Table 1.2: Total Estimated Defence Resourcing for 200203 and the Forward Estimates

2001-02 Projected Result $'000		2002-03 Previous Estimate $'000	2002-03 Budget Estimate $'000	Variation %	2003-04 Forward Estimate $'000	2004-05 Forward Estimate $'000	2005-06 Forward Estimate $'000
17,859,244	Revenue from Government for Outputs	17,700,714	18,235,351	*3.0*	18,516,150	19,381,451	19,377,526
277,591	Own-Source Revenues	288,163	287,105	*(0.4)*	297,912	309,122	316,103
18,136,835	**Total Revenue for Outputs**	**17,988,877**	**18,522,456**	*3.0*	**18,814,062**	**19,690,573**	**19,693,629**
2,305,879	Administered Revenues from Government	2,200,181	2,205,881	*0.3*	2,305,881	2,205,881	2,405,881
20,442,714	**Total Revenue**	**20,189,058**	**20,728,337**	*2.7*	**21,119,943**	**21,896,454**	**22,099,510**
	Capital Funding (departmental):						
754,175	Equity Injection	882,610	1,090,415	*23.5*	1,221,390	1,137,800	1,643,406
198,914	Capital Receipts	868,814	699.766	*(19.5)*	171,852	214,312	40,000
21,395,803	**Total Resourcing**	**21,940,482**	**22,518,518**	*2.6*	**22,513,185**	**23,248,566**	**23,782,916**

The funds available for the six Defence Outputs. Note that this is not equal to the price. This includes cash expenses for personnel and operating costs, and the accrual expenses of depreciation and the $5056 million capital use charge. This figure also appears in the Statement of Financial Performance PBS Table 3.1

Funds administered by Defence for military superannuation – not actually controlled by Defence

Additional appropriation from the Government to fund capital investment.

This figure also appears in the Capital Budget statement PBS Table 3.4

If the Capital Use Charge and the administered funds are removed, and the capital withdrawal is taken account of, the net funding received by Defence from the Government and the net proceeds of asset sales is:

Total Resourcing	$22 518 518 000
Administered	- $2 205 881 000
Capital Withdrawal	- $660 000 000
Capital Use Charge	- $5 056 000 000
Net to Defence	$14 597 000 000

Money gained from the sale of assets mainly (easier said than done see Chapter 5). This figure also appears in the Capital Budget statement PBS Table 3.4. This is a gross amount not taking into account the payment back to Government of $660 million as a Capital Withdrawal.

How much has the Budget grown?

We have calculated Total Resourcing (Departmental) from Table 2.1.1 form 1999-00 through to the end of the forward estimates period. The growth this year is 2.5% following an almost 13% boost last year. The large growth in 2001-02 was driven by a combination of the initial White Paper funding, the commencement of the war on terror, significant foreign exchange growth and, importantly, a recouping of funding for costs incurred the previous financial year. These factors tend to exaggerate the actual growth from the previous year and serve to reduce the growth to 2002-03 that would have otherwise been the case. All figures are nominal with no compensation for deflators.

Table 2.1.2 Total Defence resources (Departmental)

	1999-00[1]	**2000-01**[1]	**2001-02**[2]	**2002-03**[2]	**2003-04**[2]	**2004-05**[2]	**2005-06**[2]
$m	**12 457**	**12 603**	**14 234**	**14 596**	**14 989**	**15 643**	**15 965**
% change		1.2%	12.9%	2.5%	2.7%	4.4%	2.1%

[1] 2000-01 Annual Report. [2] 2002-03 PBS.

What is the Defence share of GDP?

The purpose of calculating the percentage of GDP is show how much the Government is allocating of national resources to Defence. For this reason, the figure of $14.6 billion for total available resources to Defence is *not* the correct number to use. We need instead an economic, rather than financial, measure of the resources used by Defence. There are a variety of figures given in the Budget Papers. We use those presented by the Treasurer in the 2002–03 Budget Overview. The results appear in Table 2.1.3. Some comparative data is shown in Section 6. The key point to recognise is that Defence spending is declining as a percentage of GDP only because current GDP growth is strong at 3.75%, and projected to only slow to 3.5% in the forward estimates.

Table 2.1.3: Defence spending as a percentage of GDP

Year	**Defence spending**[1] **($m)**	**Defence spending as a % of GDP**	**Other Commonwealth payments as a % of GDP**	**Total Commonwealth payments as a % of GDP**
2000-01	12 800	1.90%	21.20%	23.10%
2001-02	13 200	1.86%	21.44%	23.30%
2002-03	14 100	1.88%	20.82%	22.70%
2003-04	14 600	1.83%	20.47%	22.30%
2004-05	15 000	1.78%	20.32%	22.10%
2005-06	15 500	1.73%	19.87%	21.60%

[1] 2002-03 Budget Overview page 7.
GDP and Commonwealth payments from 2002-03 Budget Overview page 28.

What is the Defence share of Commonwealth payments?

Defence spending as a percentage of total Commonwealth payments is shown in Table 2.1.4. By the end of the forward estimates period it will have declined slightly to about 8%. This reflects stronger growth in Government spending in other areas.

Table 2.1.4: Defence spending as a percentage of Commonwealth payments

Year	Defence Spending as a percentage of Commonwealth Payments
2000–01	8.25%
2001–02	7.99%
2002–03	8.28%
2003–04	8.22%
2004–05	8.06%
2005–06	8.02%

Expenditure by category [PBS p 16]

The PBS displays, on p.16, a pie-chart [PBS Chart 1.1] of expenditure across four categories. The data has been transcribed to Table 2.1.3 below where percentages have been calculated inclusive and exclusive of capital use charge. However, such figures need to be treated with considerable caution.

Table 2.1.5 Expenditure by category

Category	Including Capital Use Charge		Excluding Capital Use Charge	
	$	%	$	%
Capital Use Charge	5 056	24.9		
Capital Expenditure	4 072	20.0	4 072	26.6
Other Operating Expenditure	5 454	26.8	5 454	35.7
Employees Expenditure	5 761	28.3	5 761	37.7
Total	**20 343**		**15 287**	

The alert reader will have noticed that the total expenditure exclusive of capital use charge exceeds the available resources by $690 million. This is due to a GST refund and changes to cash in the bank [see PBS Table 3.3]. As a result of the skewed impact of GST, comparison with historical data before the introduction of the GST is fraught.

Comparison with the last two years' figures (for which GST was paid) appears in Table 2.1.6. It shows that relative personnel expenditure has declined slowly whereas capital and operating have been volatile. These figures do not represent underlying cost pressures but rather they reflect recent Government decisions including the White Paper and additional funding for operations.

Table 2.1.6 Historical expenditure by category

Category	2000–01	2001–02	2002–03
Capital Expenditure	25.7%	23.5%	26.6%
Other Operating Expenditure	35.7%	38.5%	35.7%
Employees Expenditure	38.6%	38.0%	37.7%

Assets [PBS p 17]

The PBS also includes a pie chart of non-financial assets as at 30 June 2003 [PBS Chart 1.2]. Defence owns around $45.4 billion of assets, mainly specialist military equipment. We discuss trends in asset holdings, and the difficulties Defence has had in accounting for them in Section 6. On p.17 the PBS presents an argument for why Defence should hold cash reserves in excess of $600 million.

Defence Funding – the Defence Capability Plan

The White Paper *Defence 2000* included a decade-long Defence funding commitment by the Government. This was based on a detailed model of past and future Defence costs. At the core of the funding commitment is a ten-year program of capital investment called the Defence Capability Plan (DCP). The DCP will ensure that all current ADF capabilities are carried forward into the future along with the introduction of many new capabilities. In addition, the Government has agreed to provide additional resources to maintain six full-time infantry battalions in the ADF.

There are four components of the Defence funding commitment made by Government: increases to the Defence budget of $507 million in 2001–02, $1039 million in 2002–03, $1465 million in 2003–04, $2042 million in 2004–05 and $2359.4 million in 2005–06 above the pre-White Paper base and on average around 3% thereafter (Budget 2002–03 prices).

Retention of supplementary funding of around $431 million per annum for ‘force generation’ for operations in East Timor past 2004–05 (2001–02 Additional Estimates prices).

In addition, Defence is currently supplemented for the *net additional* cost of operations and receives price and exchange adjustments on a no-win-no-loss basis.

2002-03 Budget Funding [PBS p19 – 22]

The 2002–03 Budget Measures and the Summary of Planned Financial Performance [PBS pp.14–15] pre-suppose some understanding of the White Paper funding commitment (see box).

Successive budgets are built up by adding ‘budget measures’ and other adjustments to the previous estimate for that year. The 2002–03 Defence Budget is built upon the White Paper base established in the 2001–02 Budget and as amended in the 2001–02 Portfolio Additional Estimates Statement (PAES) in February 2002.

There are seventeen funding measures detailed on p.14 of the PBS, these are reproduced in Table 2.1.7 below. More details of some of this year’s increases are provided in the Budget Measures section on pp.19–22 of the PBS.

It is important to remember that the forward estimate already included the programmed increases committed in the White Paper as well as funding for the East Timor operation. The PBS reports very much 'at the margins' with no visibility of details in the funding base, or even from recent budget measures.

The following broad observations can be made:

- The largest impact comes from foreign exchange fluctuations $351 million.
- It includes $296 million of adjustments to the capital use charge.
- The net outcome of the new funded budget measures is only $107 million.

Table 2.1.7: 2002–03 Budget funding

2002–03 Defence Budget Funding	**$m**			
	2002–03	**2003–04**	**2004–05**	**2005–06**
New Budget Measures				
War Against Terrorism	199	–5		
Coastal Surveillance	22.3			
Enhanced Tactical Assault Capability	33.1	61.9	66.3	58.1
Enhanced Protective Security	41.1			
E-security	2.3	2.1	2.1	2.2
Enhanced Incident Response Capability	18.5	32.2	39.4	30.9
Reduced Administrative Spending	–97			
Increased Munition War-stocks	20.9			
Reduction in Specialist Military Equipment	–20.9			
Rescheduling of Major Capital Equipment	–150	153.8		
Shortfall in non-Property Sales	38	38	38	38
New Budget Measures sub-Total	107.3	283	145.8	129.2
Previous decisions				
Transfer for Special Purpose Aircraft	5.8			
Enhanced Communications	47.3			
Reduced Lease Back Provision	–10			
Previous decisions sub-Total	43.1			
Indexation				
Price Parameters	–55.2			
Foreign Exchange Fluctuations	351			
Indexation sub-Total	295.8			
Capital Use Charge increase	296.2			
Total 2002–03 Budget Measures	**742.4**	**283**	**145.8**	**129.2**

Three preliminary points can usefully be made about these measures.

- The largest element of the total increase reported in the PBS is accounted for by variations to the Capital Use Charge of $296.2 million. This increase has been caused by an expected increase in the value of Defences' assets. It does not constitute any increase in the resources available to Defence.
- The next largest measure is a net indexation increase of $295.8 million to compensate Defence for exchange rate variations and price movements. Exchange

rate variations were the key factor in this increase. Under a long-standing policy, the Defence budget is increased or decreased to take account of variations in the exchange rate on a no-win-no-loss basis. This increase therefore constitutes no enhancement of Defence's spending power, but only a preservation of its spending power in the face of adverse exchange rate movements. If the dollar strengthens over the coming year this increase will be reversed.

- Once these two elements have been taken account of, the net increase from new funded budget measures, offset by cuts in a number of areas, is only $107.3 million.

The presentation of Budget Measures on pp.19–22 of the PBS includes three projects that are not mentioned in the list of measures on p.14. In total they are worth $34.9 million in 2002–03. They were actually funded in the last Additional Estimates, but were presented there only under a single heading, so it is not possible from the papers to identify the projects in the PBS with those in the PAES. It is a case of needing to know what you are looking for. We reconcile the two sets of numbers in Table 2.1.8.

Table 2.1.8: Comparison of Budget Measures

Reconciliation of 2001–02 PAES and 2002–03 Budget	**$m**				
		2002–03	**2003–04**	**2004–05**	**2005–06**
Budget Measures PBS					
Counter-Terrorism – Improved Capability	4.8	10.2			
Defence Communications Project	5	26.3	18.5	25.3	38.5
Increased Funding to Intelligence Agencies	–	7.4	4.3	4.3	4.3
Sub-total	**9.8**	**43.9**	**22.8**	**29.6**	**42.8**
New Measures PAES					
Improved Communications Functionality	**9.8**	**46.6**	**23.8**	**30.3**	

To try to clear up any confusion, we decided to go back to the 2001–02 PAES and use the forecast given there for the 2002–03 Defence Budget as a basis for reviewing the outcome in this PBS. Using the methodology of Table 2.1.1 to derive the total available resourcing for 2002–03 from the PAES forecast, and added to it the net increases outlined in the PBS, less the Capital Use Charge. The results are provided in Table 2.1.9 below.

Table 2.1.9: 2002–03 Budget Reconciliation

Reconciliation of previous to current estimate	**$m**
2002–03 total available resourcing (PAES estimate)	14 205
2002–03 total extra budget funding (exclude CUC and non-property shortfall) *	408
Sub total	**14 613**
2002–03 total available resourcing (Budget estimate)	14 597
Difference (rounding error removed)	–15

* $408 million = $742.4 million – $296.2 million – $38 million

This calculation shows a decrease in defence funding in 2002–03 below what would have been expected from the PAES forecasts plus the budget measures in the PBS of about $15 million. Defence advice is that this corresponds to an adjustment due to a

payment back to Government related to assets sales not in the PBS. The complexity and difficulty of reconciling the previous and budget estimates explains some of the confusion that arose in the media following the Budget (*Financial Review* 16 May 2002, p.9).

What are the Budget Measures?

The war on terror

The largest substantive budget measure – that is aside from the Capital Use Charge and indexing increases described above – is the provision of $199 million to cover the costs of the war on terror. This will pay for operations in and around Afghanistan and in supporting the naval blockade of Iraq. The provision of this extra funding reaffirms the long-standing policy that Defence is provided with additional funding to cover the genuine *net additional* costs of operational deployments like Afghanistan. This policy is sensible management, as it means that Defence does not need to be provided with contingency funding each year to cover what are inherently unpredictable costs.

This figure does not cover the full additional cost of the Afghanistan deployment because costs are offset by savings from exercises and other activities that are not held because units are on operations. It is the balance that is the net additional cost. To give some idea of what is involved, Table 2.1.5 shows the breakdown of net additional costs associated with the 2001–02 funding of $320 million for the war on terror deployment (see PAES question on notice No. 4 February 2002 for more detail). The 2001–02 PAES said that *most* of the cost of the operations was absorbed by Defence. It is not clear what 'identified offsets from within initiatives' means.

Defence is sometimes also provided with extra funds for urgent investment in new equipment for a particular operation, either to cover shortfalls or to meet unexpected circumstances. In the 2001–02 PAES Defence received $140 million for such investment as detailed in Table 2.1.10. Around $30 million of unspecified capital investment is included in the 2002–03 Budget measure.

Table 2.1.10: 2001–02 Net additional costs of coalition against terror

Operating Costs	**$m**
Deployment and travel allowances	46.2
Additional inventory consumption (eg fuel) and maintenance	73.8
Additional communications	11.5
Deployment and airlift support to area of operations	44.0
Additional health services	3.3
Costs associated with Defence attache activity	3.9
Identified offsets from within initiatives	–2.7
Subtotal	**180**
Capital Costs	
Nuclear, biological and chemical detection equipment for ships	134.2
Electro-optic systems for all P-3C aircraft	14.9
Identified offsets from within initiatives	–9.1
Subtotal	140
Total Net Additional Cost	**320**

Of course there is a lot of uncertainty about the funding levels provided under this item. The Government does not know how much the war on terror will cost in the coming financial year. The measure appears to assume that the current level of operations will be maintained throughout the financial year. Many other outcomes are possible: our forces may be withdrawn long before June 2003, or on the other hand we may send much larger forces to, for example, Iraq – if the Government chose to support any large-scale US operations there.

The war on terror at home

The PBS lists several new measures directed by Government to help meet what is assessed to be an increased threat of terrorist attacks in Australia. Together these measures will cost $95 million in the coming financial year, and a total $390 million over the four-year period.

The two largest projects are those for an enhanced tactical assault capability ($219.4 million, including forward estimates), and the enhanced incident response capability ($121 million including forward estimates). The PBS provides descriptions of these projects on pp.20–21, although the figure given for the cost of the incident response unit differs from the sum of the components by $36 million. It is unclear from the descriptions of these two projects what the ongoing annual cost will be after the capabilities are established.

In effect, these two measures will raise two additional units within the Army. The east-coast Tactical Assault Group will presumably be of squadron or company strength (around 100 personnel), and the Incident Response Regiment will presumably be of battalion strength (around 500 personnel). Clearly skilled personnel will be diverted from within the Army to these two high readiness units. This will leave vacancies elsewhere that will have to be filled. Overall it is unclear to what extent these projects represent a boost to the size of Army, although the tactical response capability does refer to the recruitment and training of new personnel.

If the size of Army is to grow, have the additional personnel costs been included in the budget measures? Alternatively, if the size of Army does not grow, where will the personnel be drawn from and what capabilities will be lost as a result? In the case of the tactical response capability it is possible that one of the companies in the emerging permanent commando regiment (4RAR) could take up this role on a rotation basis with no addition of personnel.

The largest commitment of money in 2002–03 in response to the domestic terror threat is the $41 million that Defence will spend to protect itself. This will include capital measures of $13 million and expenses of $27.9 million for enhanced security measures including increased guarding, patrolling and protective searches. This compares with $16.4 million spent on security services in 2000–01. The curious aspect of this measure is that, unlike most of the other counter-terrorism measures, it includes no funding for future years.

Increased munitions war-stocks

The PBS lists a measure to spend an additional $20.9 million on increased munitions war-stocks. There are a number of rather odd aspects to this measure:

- Defence does seem to have continuing difficulties in funding ammunition. The problem is not lack of money – $20.9 million is not a lot in Defence terms – but lack of priority.
- There does appear to be major shortfalls in the amount of ammunition available for training. A recently-leaked Army minute detailed significant problems. Not all of these problems arise from lack of money; in some cases they arise from problems in purchasing, and quality control.
- This measure is not however a response to the shortages of ammunition for training. It is intended to boost war-stocks – ammunition held for contingencies. So this may not help the training shortfall anyway.
- The Government has not provided any extra funding for this extra ammunition. It has instead directed Defence to take the money out of funding allocated to Specialist Military Equipment – that is from capital investment. It is implied that this will not be at the cost of major investment programs, so the money will presumably come from the minor capital equipment program. This minors program is used to buy relatively small but often essential equipment. The size of the program is no longer separately identified in the PBS as it used to be, but it is probably worth around $200 million per year. So this measure will cut the minors program by around 10% – quite a serious impact.

Reduced administrative spending

We discuss these measures in Section 2.4 along with the other efficiency measures being implemented by Defence.

Funding to cover shortfall in non-property sales

The Government will provide funding of $38 million per annum to ‘invest in Defence capability’ to take account of an expected shortfall in non-property sales. Defence advice is that has to do with revenue not gained from previously planned commercial vehicle sales.

Rescheduling of major equipment acquisitions

A total of $150 million of the $3600 million capital equipment investment program for 2002–03 has been rescheduled for 2003–04. This is only around 4% of the total expenditure but represents a 30% cut to this year’s roughly $500 million increment to last year’s funding. The impact on in-service-dates for Defence Capability Plan Projects or pre-existing projects is undisclosed, as are the actual projects to be delayed.

2.2 Results for government as Defence's customer [PBS Chapter 2]

Under the outputs and outcomes framework explained in Section 1.2 of this Brief, the Government 'buys' outputs from Defence to achieve its desired outcome. Chapter 2 of the PBS is intended to describe these transactions between the Government as customer for Defence's outputs, and Defence as supplier of those outputs. Ideally it should describe how much the Government is paying, what Defence is expected to provide, and how the delivery of the outputs will be assessed. In fact, this chapter of the PBS does none of those things very well.

The price of outputs

The heart of the Defence Budget is the statement of the price of outputs on p.27 of the PBS. The concept of 'price' is used within the outcomes and outputs framework to capture an element of businesslike competitiveness in the relationship between Government and agency. In many areas of Government the concept has some validity, but its application in Defence is problematic. There is of course no commercial market in the services Defence provides to Government, so prices cannot be informed by market data. In practice, the price is built up from past forward estimates corrected for budget measures and other funding adjustment. In 2002–03 price is built upon the forward estimate given in the 2001–02 Portfolio Additional Estimates Statements (PAES).

Limitations

First, the price data presented for the six Defence outputs is too aggregated to provide information of much value. These Defence outputs are in fact aggregations of some thirty sub-outputs. No pricing or other information is given for the sub-outputs. In a budget the size of Defence's that level of detail would be much more useful.

Second, the cost data on which the prices are calculated is probably questionable. Defence has acknowledged in the past that its financial information systems do not allow it to capture output costs accurately, and estimated that attribution of costs to outputs could have errors as large as 10%. Defence is implementing a new costing module to deliver better estimates of output and sub-output costs. Improved data will be made available in the 2002–03 additional estimates.

Third, the price of outputs given in the PBS only includes the Government appropriation for outputs and does not take account of own-source revenues ($287 million). And the price includes the nominal Capital Use Charge.

Price variations

The most useful data on the output prices is provided in the paragraph about price variations given in each of the sections dealing with the separate outputs in this chapter of the PBS. What those paragraphs together affirm is that there has been very little substantive variation in the allocation of resources to the separate outputs between the current financial year and the next. The total of $543 million in variations listed in the paragraphs represents only 3% of the total price quoted for the outputs.

Variations in output prices from year to year are obscured by changes in definition in 2000–01and 2001–02 (see Section 1) and uncertainties due to management

information systems. For the purpose of comparison we have collected the output prices from the past three years for comparison in Table 2.2.1.

Table 2.2.1: Defence output prices 1999–2000 to 2002–03

	1999–2000		2000–01		2001–02		2002–03	
	Price ($m)	%	Price ($m)	%	Price ($m)	%	Price ($m)	%
Output 1	1 102	7	1 353	8	1156	6	1 151	6
Output 2	4 421	29	5 216	29	5 684	33	5 797	33
Output 3	4 576	30	4 758	27	5 070	28	5 192	28
Output 4	4 551	30	5 676	32	5 361	30	5 477	30
Output 5	193	1	719	4	192	1	175	1
Output 6	371	2			397	2	442	2
Total	15 214	100	17 722	100	17 859	100	18 235	100

Sub-output price estimates

In the absence of any recent public data we have estimated the price of the sub-outputs from historical and fragmentary public data, Table 2.2.2. The result appears below. We assess that the numbers are sufficient to give a useful measure of the *relative* allocation of price between sub-outputs. In some cases changes to the definition of outputs and sub-outputs has made estimation impossible.

Table 2.2.2 Defence sub-output price estimates 2002–03

Output and sub-output	Price ($m)	%
1. Operations		
Unknown		
Unknown		
Unknown		
Total	**1 156**	**6.3**
2. Navy		
Surface Combatants	3 086	16.9
Naval Aviation		
Patrol Boats	328	1.8
Submarines	1 064	5.8
Afloat Support	232	1.3
Amphibious Lift	432	2.4
Mine Warfare	398	2.2
Hydrographic	257	1.4
Total	**5 797**	**31.8**
5. Strategic Policy		
Unknown		
Unknown		
Total	**176**	**1.0**
6. Intelligence	**442**	**2.4**
Intelligence Organisation		
Signals Directorate		
Imagery and Geospatial		

Output and sub-output	Price ($m)	%
3. Army		
Special Forces	295	1.6
Mechanised Ops	4 107	22.5
Light Infantry		
Army Aviation		
Combat Support		
Regional Surveillance		
Motorised Operations		
Protective Operations		
Ground Based Air Defence	126	0.7
Logistics Support	663	3.6
Total	**5 192**	**28.5**
4. Air Force		
Strike Reconnaissance	947	5.2
Tactical Fighter	1,682	9.2
Strategic Surveillance	536	2.9
Maritime Aircraft	949	5.2
Airlift	1,074	5.9
Combat Support	289	1.6
Total	**5 477**	**30.0**
Total price	**18 240**	

Output statements

The PBS has a separate section devoted to each Output [PBS pp.28–55]. This generally includes, for each output:

- An introductory paragraph describing in very broad terms what the output covers, such as 'Navy provides maritime forces that contribute to the Defence of Australia'.
- A Planned Performance statement that explains in equally broad terms some of the more significant activities or developments in the output over the coming year. A very brief and not very informative description of the major elements of the force structure, generally equivalent to the sub-output level.
- A section outlining the risks and limitations to the delivery of the output in the coming year.
- A section describing the 'Strategic Initiatives' to address these risks and limitations.
- A reiteration of the budgeted price estimate of the output along with an explanation of variations from the current year result.

This information does not tell us what each output is expected to deliver in the coming year, nor does it explain how such delivery could be measured. This deficiency is important. The provision of meaningful and measurable output performance information is essential if the PBS is to provide a basis for accountability. We explore this issue at length in Section 4 and propose how future Defence PBS could be improved.

Risks

In the absence of performance targets, the most valuable part of these sections is the discussion of risks in relation to each output. There are a number of recurring themes in these parts of the different output sections. Key issues which are raised in relation to a number of outputs include:

- the high operational tempo, including the extent of concurrent operations;
- recruitment and retention of personnel;
- logistic shortfalls; and
- increasing operating costs for both existing and new equipment.

Many of these issues are raised elsewhere in the PBS, and are covered elsewhere in this Budget Brief.

The logistics shortfalls mentioned by Navy, Army and Air Force appear to be a mixture of supply chain difficulties and funding problems. It would be good to know exactly what the situation is.

2.3 Results for Government as Defence's owner [PBS Chapter 3]

Budgeted Financial Statements explained

The financial statements of Commonwealth agencies are technical and, for the uninitiated, hard to follow – and the financial statements for Defence are no exception. Even in a routine business context, financial statements require some experience to understand. Fortunately, much of the Defence Budget can be understood without recourse to the financial statements. However, it is through the financial statements that the key financial aspects of the Budget are consolidated, including the impact on future years.

The financial statements are much like those of a public company and it is often useful to discuss the financial statements as if Defence was a profit-making company.

The financial statements in Part 3 of the 2002–03 PBS detail an estimate of the current year result, the planned financial performance for the next 12 months and 'forward estimates' for the next 3 years. Revised estimates of budgeted performance are published later in the year in the PAES, and the actual financial performance is reported in October in the Annual Report.

The Defence PBS provides three sets of financial statements:

- The 'departmental' statements [PBS Table 3.1 to 3.5] for the Department of Defence. These describe the resources that the department controls to deliver outputs. In the ordinary sense, these are the income and costs associated with running Defence.
- The 'administered' statements, called notes, [PBS Table 3.6 to 3.8] for the administered funds primarily used for military superannuation schemes.
- Financial statements for the Defence Housing Authority [PBS pp.124–129].

We explain the departmental statements below. The other two sets of statements are of less interest and we will only touch on them briefly. The departmental financial statements include:

- Budgeted Statement of Financial Performance (previously called an Operating Statement or Profit and Loss Statement) [PBS Table 3.1],
- Budgeted Statement of Financial Position (previously called a Balance Sheet) [PBS Table 3.2],
- Budgeted Statement of Cash Flows [PBS Table 3.3]; and
- Capital Budget Statement [PBS Table 3.4].

The departmental financial statements only report at the most aggregate level. All of the figures refer to the total financial performance of Defence as a whole. There is no information on the individual outputs, services or the defence groups in these statements. Although at PBS Chapter 2 individual prices to government are given for each of the outputs.

An important part of the financial statements are the accompanying notes [PBS pp.68–74]. These include explanatory notes on accounting policy and a list of variations between the 2002–03 budget and 2002–03 revised estimates given in the 2001–02 PAES in February 2002. The notes on variations only report changes and give no insight into the 'base' of the Defence budget. The Defence Annual Report provides a much more extensive set of notes that break down many of the items in the financial statements into sub-categories. If you want to understand the budgeted financial statements it helps to have a recent copy of the annual report at hand so that you can refer to the notes to the financial statements.

Before going on, it is helpful to first understand something of the accrual accounting framework (see following box – Accrual accounting). Do not worry if it all seems complex and arcane – it is. Ultimately, the only way to understand the statements is to study them. It is also worth making sure that you understand how Defence is resourced, which is covered in some depth in Section 2.1.

Accrual accounting

Accrual accounting is *activity* driven. It accounts for all resources when they are consumed and not necessarily when the corresponding cash is transacted. This can result in non-cash expenses such as depreciation and inventory consumption resulting from the consumption of resources previously paid for. Accrual accounting also includes expenses associated with unpaid obligations like creditors and employee entitlements.

The first step to understanding accrual accounting is to understand the language used. Some of the terms are obvious but others are not.

At the most basic level are the **resources** that are used in Defence. This includes **cash**, **inventory** (eg bullets, soap and uniforms), **capital assets** (eg tanks, buildings, and even software), the labour of staff and goods and services from the market place.

The earning of income is called **revenue**. Defence earns revenues through sales, interest and the output appropriations from the Government. The consumption of a resource is called an **expense**.

Some resources are paid for and used within the accounting period (eg salaries), other non-cash expenses arise through the use of resources previously paid for called **assets** such as **inventory** which is consumed. Another non-cash expense arises when **capital assets** are consumed through their **depreciation** in value over time. This yields an annual expense roughly equal to the value of the capital asset divided by its economic life. Defence also pays a dividend imposed by Government called the Capital Use Charge. The difference between **revenues** and **expenses** is called the **net operating result**. A positive operating result is a profit, and a negative result is a loss. Defence budgets for a zero operating result (net of the Capital Use Charge, refer Annex A.1) but has in fact achieved surpluses of $716 million and $1416 million in each of the last two years.

The subtraction of expenses from revenues is done in the **Budgeted Statement of Financial Performance** [PBS Table 3.1], more commonly called the Operating Statement or Profit and Loss Statement. Resources that are presently owned are called **assets**. These can be either financial (eg cash, investment or monies owed) or non-financial (eg capital assets, inventory). Obligations to pay for resources in the future are called **liabilities** (eg accumulated employee entitlements and bills to be paid). This includes liabilities associated with non-cash related expenses such as increases in employee entitlements (long service leave) which have arisen through the use of resources which have not been paid. The difference between **assets** and **liabilities** is the **net assets** or **equity**. Defence has significant net assets, budgeted at $45.4 billion as at 30 June 2003.

The subtraction of liabilities from assets to calculate equity (net assets) occurs on the **Budgeted Statement of Financial Position** [PBS Table 3.2], more often called the Balance Sheet. The balance sheet captures resources not yet used (**assets**) and resources used but not yet paid for (**liabilities**).

Even in the accrual framework cash is important. The **Budgeted Statement of Cash Flows** [PBS Table 3.3], often called the cash flow statement, tracks the flow of cash through Defence. It reports on the cash received and used for the **operating activities** that deliver the Defence outputs. It also reports on the cash used for **investing activities** like the purchase of tanks, buildings and other capital assets, as well as the cash received from the sale of assets. Finally it reports on the **financing activities** that include cash received from, and paid to, Government. This includes the equity injection, capital use charge and capital withdrawal. These peculiar artefacts of the framework are explained on the next page.

The Defence financial statements also include a Capital Budget [PBS Table 3.4] that reports the **expenditure** of cash on capital assets. It also reports on how the capital assets are funded and reports on the cash **receipts** gained from the sales of capital assets, and the various payments to and from Government associated with capital investment. As with the cash flow statement, all the entries refer to cash transactions. The Capital Budget provides insight into the investing and financing aspects of the Statement of Cash Flows.

The Budgeted Statement of Financial Performance – the operating statement [PBS Table 3.1]

The Statement of Financial Performance reports on the accrual revenues and expenses involved in the delivery of the Defence Outputs during the financial year. It does not include what is spent on the investment in capital assets. These are reported as assets in the Statement of Financial Position.

In simplest terms, the Statement of Financial Performance subtracts Defence's total expenses from it total revenues to calculate the net operating result (profit or loss) for the financial year.

NET OPERATING RESULT $5056 million	=	REVENUES $18 522 million	–	EXPENSES $13 466 million

Revenues, or income, include (most figures based on last year's actual result unless otherwise stated):

- Appropriations from Government This only includes the Price for Outputs Appropriation ($18 235 million PBS 2002–03).
- Sale of Goods and Services including housing rental contributions (~$102 million), rations and quarters charges (~$32 million) and payments by foreign Governments (~$41 million).
- Interest earned from investments (~$33 million) – Defence maintain significant cash at bank balances ($609 million PBS 2002–03).
- Net Gains from Sales of Assets –This is the difference between the actual receipts from the sales of assets and their value recorded in Defence's financial records. If the difference represents a profit it is reported here as revenue, if it is a loss, the difference is reported in expenses as a net loss on sale.

Expenses include (most figures based on last year's actual result unless otherwise stated):

- Employees including salaries and wages for military (~$2458 million) and civilian (~$787 million) personnel (including provisions for annual and long service leave), allowances (~$370 million), superannuation (~$684 million), medical (~$81 million), Fringe Benefits Tax (FBT) (~$258 million) and Comcare premiums (~$11 million).
- Suppliers including repair and overhaul (~$809 million), inventory consumption (~$574 million), goods and services ($529 million), facilities operations ($297 million), information technology (~$194 million), travel (~$222 million), operating leases (~$176 million), consultants (~$182 million), utilities (~$112 million).
- Depreciation and amortisation being the annual cost of using up assets over time – approximates the asset value divided by remaining life.
- Write Down of Assets is the reduction in the value of assets which are no longer used or exist.

The 2000–01 Annual Report provides more detailed information on actual expenses and revenues.

What will Defence do with its budgeted net operating result of $5056 million made from its customer, the Government, in 2002–03? Just as a public company would, it will charge a price sufficient to pay its shareholders a dividend. However, Defence only has one shareholder and that is the Government. Therefore a dividend of $5056 million is paid back to Government through the Capital Use Charge. The assignment of the Capital Use Charge as a dividend (rather than an expense) is somewhat artificial and it is more appropriate to think of Defence as budgeting to achieve a zero operating result after deducting the Capital Use Charge.

This is far from the actual result Defence has achieved in the last two years where surpluses after the Capital Use Charge have been $716 million and $1416 million respectively.

The Equity Interests part of the Statement of Financial Performance summarises the net change to Accumulated Surpluses at 30 June. This also appears on the Statement of Financial Position as a component of equity. The accumulated surpluses amount is the sum of the past operating surpluses that have occurred since the start of accrual reporting by Defence.

This is done in two stages. First, the net operating result is added to the 'accumulated surplus' from the beginning of the financial year, called the Accumulated Surplus at 1 July, to give the Total Available for Appropriation. Then the accumulated surplus at the end of the financial year is calculated by subtracting the payments to Government for the Capital Use Charge and Capital Withdrawals ($660 million PBS 2002–03).

The budgeted statement of financial performance – the operating statement

Revenues
Income earned through the delivery of Defence's Outputs and other sources

The price of outputs

Expenses
Resources consumed in the process of delivery the Defence Outputs to Government. This is largely employee expenses, suppliers (including inventory use) and depreciation

PBS Table 3.1: Budgeted statement of financial performance

2001–02 Projected Result				%	2003–04 Forward Estimate $'000	2004–05 Forward Estimate $'000	2005–06 Forward Estimate $'000
	REVENUES						
17,859,244	Appropriations from Government	17,700,714	**18,235,351**	*3.0*	18,516,150	19,381,451	19,377,526
245,019	Sales of goods and services	250,348	**249,368**	*(0.4)*	254,864	260,735	267,253
15,000	Interest	20,000	**20,000**	–	25,000	30,000	30,000
–	Net gains from sales of assets	–	**–**	–	–	–	–
–	Net gain on foreign exchange	–	**–**	–	–	–	–
–	Reversals of previous asset write–downs	–	**–**	–	–	–	–
–	Assets recognised due to change in accounting policy	–	**–**	–	–	–	–
17,572	Other	17,815	**17,737**	*(0.4)*	18,048	18,387	18,850
18,136,835	**TOTAL REVENUES**	17,988,877	**18,522,456**	*3.0*	18,814,062	19,690,573	19,693,629
	EXPENSES						
5,541,365	Employees	5,843,913	**5,874,644**	*0.5*	6,146,999	6,496,039	6,684,035
4,652,751	Suppliers	4,483,504	**4,675,891**	*4.3*	4,578,294	4,826,319	4,724,107
23,000	Grants	1,974	**1,370**	*(30.6)*	2,013	2,064	2,116
2,678,112	Depreciation and amortisation	2,768,014	**2,782,814**	*0.5*	2,826,637	2,984,937	2,742,171
425,327	Write-down of assets	100,000	**100,000**	–	100,000	100,000	100,000
13,320,555	**TOTAL EXPENSES**	13,197,405	**13,434,719**	*1.8*	13,653,943	14,409,359	14,252,429
32,533	Borrowing cost expense	31,643	**31,643**	–	30,678	29,633	28,761
4,783,747	**NET OPERATING RESULT**	4,759,829	**5,056,094**	*6.2*	5,129,441	5,251,581	5,412,439
	EQUITY INTERESTS						
38,304,586	Accumulated surpluses at 1 July	38,232,886	**38,232,886**	–	37,573,386	37,484,486	37,336,654
43,088,333	**TOTAL AVAILABLE FOR APPROPRIATION**	42,992,715	**43,288,980**	*0.7*	42,702,827	42,736,067	42,749,093
(4,771,747)	Capital use charge	(4,759,829)	**(5,056,094)**	*6.2*	(5,129,441)	(5,251,581)	(5,412,439)
(83,700)	Capital withdrawal	(775,548)	**(659,500)**	*(15.0)*	(88,900)	(147,832)	–
38,232,886	**ACCUMULATED SURPLUSES AT 30 JUNE**	37,457,338	**37,573,386**	*0.3*	37,484,486	37,336,654	37,336,654

See Statement of Financial Position

Net Operating Result
The net profit or loss calculated by subtracting Expenses from Revenue

Total available for appropriation
The equity from the start of the year adjusted for the operating result made during the year

Surpluses at 1July
Defence's total accumulated surplus at start of year

Capital Withdrawal
Cash returned to the Government from the sale of assets, mainly property

Capital use charge
The charge levied by Government at 11% per annum for the use of $45 billion of net assets

Accumulated Surplus 30 June
Accumulated results at the end of the year shown as part of equity on Statement of Financial Position

The budgeted statement of financial position – the balance sheet [PBS Table 3.2]

The Statement of Financial Position projects a snapshot of Defence's assets, liabilities and equity at the end of the financial year. This is calculated by subtracting the total liabilities from the total assets to yield the net assets:

NET ASSETS $45.4 billion	=	ASSETS $49.2 billion	–	LIABILITIES $3.8 billion

Defence's **assets** include (most figures are based on 2002–03 PBS unless otherwise indicated):

- Financial Assets ($1 billion) and Non-Financial Assets ($48.180 billion) such as:
  - Land and Buildings $7.5 billion, and Infrastructure Plant and Equipment $37 billion which primarily includes Specialist Military Equipment (including equipment in-service as well as under construction).
  - Inventories valued at $3.1 billion. Defence has gross inventories which are reduced by a liability for obsolescence (this breakdown not shown in the PBS). As inventories are used they are recorded as expenses in the Statement of Financial Position in the suppliers category.
  - Intangibles ($100 million) including software and patents, copyrights and licences.
- Defences **liabilities** include
  - Employees ($2956 million). Actual employee provisions of $2733m in 2000–01 included accrued annual leave (~$523 million) and long service leave (~$764 million), military compensation (~$1200 million). (Again this breakdown is not shown in the PBS for the coming financial year).
  - Suppliers ($416 million). Actual creditors reported in 2000–01 included non-capital trade creditors (~$558 million) and capital trade creditors (~$158 million).
  - Leases ($369 million) being mainly a finance lease arrangement with the Defence Housing Authority.
- The net assets also represent the total equity. The total equity represents the overall owner's interest in Defence. In the Equity part of the Statement of Financial Position the total **equity** is broken down into three somewhat artificial categories:
  - Capital ($2501 million) which is the accumulated result of equity injections and some capital withdrawals;
  - Revaluation Reserves ($5334 million) which result from the revaluation of assets. For accounting purposes, where the value of assets has been revised and increased, Defence is required to account for these increases through increasing the asset as well as a special 'revaluation reserve'; and

- Accumulated Surpluses is the accumulated results from previous years plus the initial value of net assets (or equity) when accrual reporting was introduced, as shown at the bottom of Table 3.1.

Finally, the net assets, or total equity, are broken down in terms of assets and liabilities that are current or non-current. Current assets and liabilities are those that those which will be realised within the next twelve months, whereas non-current ones will be realised beyond that time.

The budgeted statement of financial position – the balance sheet

Assets
(resources that will bring future benefit) The financial and non-financial assets budgeted to the end of the financial year

Liabilities
(resources that have been used but not paid for) Payments that Defence is required to make at some time in the future

PBS Table 3.2: Budgeted statement of financial position

2001–02 Projected Result					Forward Estimate	2004–05 Forward Estimate $'000	2005–06 Forward Estimate $'000
	ASSETS						
	Financial Assets						
500,000	Cash	423,631	**609,807**	*43.9*	628,816	772,183	772,183
440,708	Receivables	433,808	**433,808**	–	433,808	433,808	433,808
–	Accrued revenues	–	**–**	–	–	–	–
940,708	**Total Financial Assets**	857,439	**1,043,615**	–	1,062,624	1,205,991	1,205,991
	Non-Financial Assets						
7,995,708	Land and buildings	7,313,589	**7,458,837**	*2.0*	7,429,726	7,291,427	7,296,220
35,836,378	Infrastructure, plant and equipment	37,039,011	**37,010,550**	*(0.1)*	38,451,182	39,649,182	41,450,088
3,194,225	Inventories	3,106,816	**3,127,706**	*0.7*	3,031,828	2,930,885	2,842,518
136,062	Intangibles	100,360	**100,360**	–	65,433	29,501	37,018
482,963	Other	482,963	**482,963**	–	482,963	482,963	482,963
47,645,336	**Total Non-Financial Assets**	48,042,739	**48,180,416**	*0.3*	49,461,132	50,383,958	52,108,807
48,586,044	**TOTAL ASSETS**	48,900,178	**49,224,031**	*0.7*	50,523,756	51,589,949	53,314,798
	LIABILITIES						
	Debt						
380,981	Leases	369,386	**369,386**	–	356,825	343,218	328,738
213	Other interest bearing liabilities	213	**213**	–	213	213	213
381,194	**Total Debt**	369,599	**369,599**	–	357,038	343,431	328,951
	Provisions and Payables						
2,842,288	Employees	2,956,058	**2,956,058**	–	3,074,384	3,197,449	3,293,372
416,326	Suppliers	416,326	**416,326**	–	416,326	416,326	416,326
72,159	Other	72,159	**72,159**	–	72,159	72,159	72,159
3,330,773	**Total Provisions and Payables**	3,444,543	**3,444,543**	–	3,562,869	3,685,934	3,781,857
3,711,967	**TOTAL LIABILITIES**	3,814,142	**3,814,142**	–	3,919,907	4,029,365	4,110,808
44,874,077	**NET ASSETS**	45,086,036	**45,409,889**	*0.7*	46,603,849	47,560,584	49,203,990
	EQUITY						
1,411,251	Capital	2,293,861	**2,501,666**	*9.1*	3,723,056	4,860,856	6,504,262
5,229,940	Reserves	5,334,837	**5,334,837**	–	5,396,307	5,363,074	5,363,074
38,232,886	Accumulated surpluses	37,457,338	**37,573,386**	*0.3*	37,484,486	37,336,654	37,336,654
44,874,077	**TOTAL EQUITY**	45,086,036	**45,409,889**	*0.7*	46,603,849	47,560,584	49,203,990
Represented by							
1,533,469	Current assets	1,470,937	**1,675,292**	*13.9*	1,694,301	1,856,265	1,878,601
47,052,573	Non–current assets	47,429,241	**47,548,739**	*0.3*	48,829,455	49,733,684	51,436,197
1,531,124	Current liabilities	1,574,184	**1,587,791**	*0.9*	1,619,011	1,665,418	1,701,850
2,180,843	Non-current liabilities	2,239,958	**2,226,351**	*(0.6)*	2,300,896	2,363,947	2,408,958

Net Assets = Total Equity
This is simply the difference between the assets and the liabilities and represents the value of the owner's interests

Here the equity (net assets) are broken down in terms of current and non-current assets and liabilities

Here the equity (net assets) are broken up in terms of the source or nature of equity

The budgeted statement of cash flows [PBS Table 3.3]

The budgeted statement of cash flows, or cash flow statement, reports the actual receipt and expenditure of cash in Defence. It is however, just as complex as any of the other statements.

The cash flows are broken into three categories and the net impact of cash movements for each category is then brought together to literally show the net impact on Defence's bank account at the end of the financial year. In broad terms:

Change to cash $110 million	=	Net cash from/to operating activities $8.1 billion	+	Net cash from/to investing activities –$3.3 billion	+	Net cash from/to financing activities –$4.7 billion

Net Cash from/to Operating Activities is the net cash remaining after the delivery of the Defence outputs. As is shown, from the total cash received from operating activities of $19 334 million about $5760 million is spent on employees and $5420 million is spent on suppliers. The details of what these amounts include are similar to the corresponding *expenses* in the Statement of Financial Performance – although the numbers will differ slightly due to goods and services tax (GST) and timing effects (which are reported on the Statement of Financial Position). The total unused cash from operating activities is around $8119 million. After the CUC of $5.506 billion is removed the cash used on operating activities is $3063 million less than the corresponding expenses due to non-cash expenses like depreciation.

Net Cash from/to Investing Activities is the difference between the *gross* receipts from the sale of assets (including equipment, property and buildings $700 million), and the purchase of specialist military equipment ($3586 million) and other property, plant and equipment ($486 million). The specialist military equipment includes the major and minor capital equipment programs, while other property, plant and equipment includes much of the capital facilities program. Investing activities consume $3372 million more than they generate from capital receipt activities. The difference is funded from the excess operating activities cash and equity appropriation.

Net Cash from/to Financing Activities is mainly concerned with accounting for the various cash transactions between Defence and the Government related to capital investment.

Net cash from/to financing activities –$4.7 billion	=	Equity injection $1.1 billion	–	Capital use charge $5.1 billion	–	Capital withdrawal $660 million

Finally, the three net cash changes over the financial year are brought together to project the cash held by Defence on 30 June 2003 on the basis of the starting balance at 1 July 2002.

Cash held 30 June 2003 $610 million	=	Cash held 1 July 2002 $500 million	+	Change to cash $110 million

Interestingly, the cumulative impact of successive cash surpluses over the forward estimates period is to build up a cash surplus of $772 million by 2004–05.

The budgeted statement of cash flows

The *cash* received for operating activities is the collection of the *revenues* on the Statement of Financial Performance. The difference is due to timing of transactions.

The *cash* used for operating activities is less than the *expenses* recorded for operating activities on the Statement of Financial Performance because of non-cash expenses (eg depreciation)

PBS Table 3.3: Budgeted statement of cash flows

2001–02 Projected Result					2003–04 Forward Estimate $'000	2004–05 Forward Estimate $'000	2005–06 Forward Estimate $'000
	OPERATING ACTIVITIES						
17,859,244	Appropriations from Government	17,700,714	**18,235,351**	*3.0*	18,516,150	19,381,451	19,377,526
266,091	Sales of goods and services	271,878	**270,814**	*(0.4)*	276,782	283,158	284,625
15,000	Interest	20,000	**20,000**	–	25,000	30,000	30,000
741,051	Net GST refund	762,765	**792,160**	*3.9*	822,983	828,045	822,429
15,572	Other	15,815	**15,737**	*(0.5)*	16,048	16,387	18,850
18,896,958	**Total cash received**	18,771,172	**19,334,062**	*3.0*	19,656,963	20,539,041	20,533,430
5,431,986	Employees	5,730,143	**5,760,874**	*0.5*	6,028,673	6,372,974	6,588,112
5,618,313	Suppliers	5,178,390	**5,420,978**	*4.7*	5,325,317	5,573,844	5,475,541
23,000	Grants	1,974	**1,370**	*(30.6)*	2,013	2,064	2,116
32,533	Other	31,643	**31,643**	–	30,678	29,633	28,761
11,105,832	**Total cash used**	10,942,150	**11,214,865**	*2.5*	11,386,681	11,978,515	12,094,530
7,791,126	**NET CASH FROM/(TO) OPERATING ACTIVITIES**	7,829,022	**8,119,197**	*3.7*	8,270,282	8,560,526	8,438,900
	INVESTING ACTIVITIES						
198,914	Proceeds from sales of property, plant and equipment	868,814	**699,766**	*(19.5)*	171,852	214,312	40,000
198,914	**Total cash received**	868,814	**699,766**	*(19.5)*	171,852	214,312	40,000
2,979,417	Purchase of specialist military equipment	3,451,767	**3,586,909**	*3.9*	3,903,825	3,729,538	4,077,514
489,738	Purchase of property, plant and equipment	471,900	**485,473**	*2.9*	509,788	626,713	617,873
3,469,155	**Total cash used**	3,923,667	**4,072,382**	*3.8*	4,413,613	4,356,251	4,695,387
(3,270,241)	**NET CASH FROM/(TO) INVESTING ACTIVITIES**	(3,054,853)	**(3,372,616)**	*10.4*	(4,241,761)	(4,141,939)	(4,655,387)
	FINANCING ACTIVITIES						
32,788	Other	–					
754,175	Equity appropriation	882,610	**1,090,415**	*23.5*	1,221,390	1,137,800	1,643,406
786,963	**Total cash received**	882,610	**1,090,415**	*23.5*	1,221,390	1,137,800	1,643,406
10,704	Repayments of debt	11,595	**11,595**	–	12,561	13,607	14,480
4,771,747	Capital use charge	4,759,829	**5,056,094**	*6.2*	5,129,441	5,251,581	5,412,439
83,700	Capital withdrawal	775,548	**659,500**	*(15.0)*	88,900	147,832	–
4,866,151	**Total cash used**	5,546,972	**5,727,189**	*3.2*	5,230,902	5,413,020	5,426,919
(4,079,188)	**NET CASH FROM/(TO) FINANCING ACTIVITIES**	(4,664,362)	**(4,636,774)**	*(0.6)*	(4,009,512)	(4,275,220)	(3,783,513)
441,697	**Net Increase/(Decrease) in Cash Held**	109,807	**109,807**	–	19,009	143,367	–
58,303	Cash at 1 July	313,824	**500,000**	*59.3*	609,807	628,816	772,183
500,000	**CASH AT 30 JUNE**	423,631	**609,807**	*43.9*	628,816	772,183	772,183

Cash received, mainly for the sale of property, plant and equipment

Here is where generally payments to and from Government are shown

Here is where the net change in cash in the bank between the start and the end of the financial year is calculated

The purchase of assets including capital assets and buildings

Cash balance held in Defence's bank account

The Capital Budget [PBS Table 3.4]

The Capital Budget Statement [PBS Table 3.4] is largely a restatement of the Budgeted Statement of Cash Flows relating to capital investment. It makes explicit where the funding for the capital budget comes from.

The **Capital Expenditure** is presented just as it is in the Budgeted Statement of Cash Flows. The **Capital Receipts** are also sourced from the Budgeted Statement of Cash Flows and the calculation of the **Net Capital Receipts** simply subtracts the Capital Withdrawal (see Section 2.1) from this cash received for investing activities. The interesting part of the statement is the calculation of the Total **Capital Funding**.

The **Total Capital Funding** shows the three separate sources of cash funding for capital investment. This includes the equity injection, or equity appropriation, from the Government ($1090 million), and the net capital receipts of $40 million which is the proceeds from the sale of assets after the capital withdrawal is made to Government. Finally, the Operating receipts provides the balance of the capital funding of $2942 million from what is *in effect* cash from operating activities.

Capital funding $4 072 million	=	Equity injection $1.090 million	+	Operating receipts $2.942 million	+	Net capital receipts $40 million

Further detail on the Capital Budget can be found in PBS Table 3.5.

The Capital Budget

PBS Table 3.4: Capital Budget

Capital expenditure as given in the Statement of Cash Flows

2001–02 Projected Result			Budget Estimate	*Variation* %	2003–04 Forward Estimate $'000	2004–05 Forward Estimate $'000	2005–06 Forward Estimate $'000
	CAPITAL EXPENDITURE						
2,979,417	Purchase of specialist military equipment	3,451,767	**3,586,909**	*3.9*	3,903,825	3,729,538	4,077,514
489,738	Purchase of property, plant and equipment	471,900	**485,473**	*2.8*	509,788	626,713	617,873
3,469,155	**TOTAL CAPITAL PAYMENTS**	3,923,667	**4,072,382**	*3.8*	4,413,613	4,356,251	4,695,387
	Funded from:						
754,175	Equity injection	882,610	**1,090,415**	*23.5*	1,221,390	1,137,800	1,643,406
2,587,766	Operating receipts	2,947,791	**2,941,701**	*(0.2)*	3,109,271	3,151,971	3,011,981
127,214	Net Capital receipts	93,266	**40,266**	*(56.8)*	82,952	66,480	40,000
3,469,155	**TOTAL CAPITAL FUNDING**	3,923,667	**4,072,382**	*3.8*	4,413,613	4,356,251	4,695,387
	CAPITAL RECEIPTS						
	Proceeds from sale of specialist military equipment	–	–	–	–	–	–
198,914	Proceeds from sales of property, plant and equipment	868,814	**699,766**	*(19.5)*	171,852	214,312	40,000
–	Other capital receipts	–					
(71,700)	Less: Capital withdrawal	(775,548)	**(659,500)**	*(15.0)*	88,900	147,832	–
127,214	**NET CAPITAL RECEIPTS**	93,266	**40,266**	*(56.8)*	82,952	66,480	40,000

This is where the **net capital receipts** are calculated by subtracting the capital withdrawal from the receipts from the sales of property plant and equipment

This is the interesting bit where the various sources of funding for capital investment are brought together. Note the funding of $2.9 billion in operating receipts

Administered and Defence Housing Authority statements

The Defence Housing Authority (DHA) [PBS pp.124–129] is provided with the Defence Portfolio budget statements. It is not controlled by Defence, is not consolidated into the Defence statements and does not receive appropriations. The DHA charges Defence for rent and housing-related services and pays a dividend to the Government.

Administered items [PBS pp.65–67] are those items which are controlled by the Government, but managed by Defence on behalf of the Government. Except for some minor expenses, this includes Special Appropriations for the Defence Force Retirement and Death Benefits (DFRB) Scheme, the Military Superannuation and Benefits Scheme (MSBS) and the MSBS payments.

IN-DEPTH ANALYSIS

Defence Financial Statements explained for accountants

This section provides a brief explanation of key aspects of the financial statements for those who are more accounting aware and should be read in conjunction with the key financial statements. The focus is on bridging the gap between private sector accounting and the technicalities of the Commonwealth's accrual output framework as applied to Defence.

The Defence Portfolio Budget Statements 2002–03 include the financial statements for Defence (Chapter 3 'Results for Government as Defence's Owner' p.59) and separately the Defence Housing Authority (p.124). The Defence Housing Authority which forms part of the Defence Portfolio is not consolidated into the Defence statements. DHA charges Defence for rent and housing-related services and pays a dividend to government.

The financial statements for Defence are broadly classified into **Defence departmental statements** and **administered notes.**

Previously, the budget papers included for both departmental and administered items the following key financial statements:

- Budgeted Statement of Financial Position (previously called a Balance Sheet- records assets, liabilities and equity);
- Budgeted Statement of Financial Performance (previously called an Operating Statement or profit and loss statement- records revenues and expenses) and;
- Budgeted Statement of Cash Flows.

Following a change in accounting disclosure the administered statements are now referred to as notes. With some omissions such as equity, these notes contain basically the same information as the Statements. This reflects that these items are being reported on behalf of government and are not controlled by Defence. In addition to the key statements and notes, **a capital budget statement** (which shows the budgeted

spend on capital and the source of funding) and **summary of movement of non-financial assets** (which shows the movements in property, plant and equipment and specialist military equipment) are also included.

Revenues and expenses in the Budgeted Statement of Financial Performance are calculated using the accrual basis of accounting. Appropriations to fund expenses therefore include amounts for both cash and non-cash amounts.

Appropriations

Under the accrual budgeting framework there are the following annual appropriations:

- Departmental Output Appropriation;
- Departmental Capital Appropriations, referred to as 'equity injections' for funding of assets and liabilities;
- Administered Expense Appropriations – very minor in Defence; and
- Administered Capital Appropriations – none in Defence.

Payments made under Special Appropriations are in accordance with associated underlying legislation. Defence's administered payments to military superannuation funds are made from these Special Appropriations.

A summary of the total 2002–03 Defence Appropriations is provided within the PBS on p.18. This table (which is a departure from the suggested format) includes the above appropriations. Receipts from independent sources have also been included, as these require appropriation under section 31 of the *Financial Management and Accountability Act 1997* (FMA).

Departmental items

These are defined as resources that the department controls to deliver outputs (products) for a price. In the ordinary sense these are the income and expenses associated with running the operations of Defence.

Budgeted Statement of Financial Performance [PBS Table 3.1]

Appropriations

Accrual output based budgeting which was introduced in the Commonwealth in the 1999–2000 budget required the separation of appropriations into departmental price for services delivered (departmental output appropriation) and capital provided by the owner to fund assets and liabilities (equity injection). Outputs (goods and services produced) contribute to outcomes (the impact for the Australian community). Defence has six outputs contributing to only one outcome 'the Defence of Australia and its national interests'. The price that the government is paying for each of these outputs in 2002–03 is shown at PBS Chapter 2.

Originally, in Defence, the global budget flexibility was maintained. The Defence Budget was separated into the Output Appropriation and Equity Injection. If the Output Appropriation increased, the amount available to be injected as capital fell, total funding was maintained to the Government agreed real growth level. Defence

split the ‘global’ between Output and Equity Appropriation by calculating the output resourcing required, and used the equity injection to ‘top-up’ the budget. Defence now explains variations to budget for both the output and equity appropriations [PBS p.14].

Output Appropriation – this appropriation funds the operational expenses of Defence. The Output Appropriation revenue ($18 235 million; 2002–03) and revenue from other sources ($288 million; 2002–03) (such as sale of goods and services) covers both cash related (eg employee expenses and suppliers), non-cash related expenses (eg depreciation and inventory consumption) and the capital use charge.

The output appropriation revenue, and revenue from other sources, together fund the price of outputs ($18 523 million). This is the figure that should be used in PBS Chapter 2 ’Results for Government as Defence’s Customer’ to show the amount of price of each output. Note that Defence has reported only the outputs by appropriation (as Price to Government ($18 235 million)) and has not included revenues from other sources of $288 million. Deciding whether the ‘price is right’ from Chapter 2 would be difficult for government as there is very little information for the reader on what are the constituent input costs or sub-output dissections. Defence indicates at PBS p.17, that this will be remedied through a new costing model available for 2002 actual results and the 2002–03 PAES. However, this costing model would seem not to incorporate the proposed customer supplier arrangements which will not being fully implemented until 2003–04 [PBS p.97].

Other revenue

The Own-Source Revenues [PBS Table 1.2] such as housing rentals (in Budgeted Statement of Financial Performance) is different from the amount of ‘Receipts from Independent Resources’ PBS Table 1.4 as receipts includes receipts from sales of goods and services (which can be different from the revenue due to timing differences) and capital receipts (which is different from profit and loss on sale of assets). These receipts are appropriated under Section 31 of the FMA.

Expenses

Expenses include both cash and non-cash amounts including:

- **supplier expenses** such as repairs, property expenses, general goods and services. Supplier expenses also includes inventory consumption (a non-cash amount), as inventory purchases are recorded as assets;
- **employee expenses** including salary and wages and superannuation;
- **depreciation and amortisation** charge representing the use of property, plant and equipment; and
- **write-down of assets** such as specialist military equipment and inventories which are obsolete.

Asset adjustments

Despite achieving large actual revenues and expenses associated with corrections in accounting for assets such as 'Assets found and not recorded' in 1999–2000 and 2000–01, Defence does not budget for these amounts.

Capital use charge

The CUC ($5.056 billion) is funded through the output appropriation as 11% of opening net assets plus the equity injection.

If the actual net closing net assets (adjusted for asset revaluations and asset adjustments) is more or less than the budgeted amount funded through the output appropriation a payment to or from Government is made. This can work both ways. In 2001 actual results the Government owed Defence some $21.542 million (CUC Receivable Note 16) as a result of a fall in closing net assets. However if the actual closing net assets are higher than the budgeted closing assets (adjusted for asset revaluations and asset adjustments) Defence is required pay the extra CUC from output appropriations provided for operations. This may or may not be an issue for Defence in 2001–02. Despite the revised 2001–02 estimate for net assets increasing by $2.129 billion from the budget estimate of $42.745 billion to $44.874 billion, the capital use charge funding remained constant at $4.771 billion. If the 2001–02 projected net asset result in the 2002–03 PBS is achieved, Defence could have insufficient funding of $164 million built into the 2001–02 output appropriation to pay the CUC. If this is the case, it would appear that Defence would have to pay an amount from cash reserves or reduce appropriation available for other purposes. CUC can have more than a notional impact.

Table 2.3.1

Year	**Net asset amount**	**Capital use funding**
2001–02 Budget	$42.745 billion	$4.772 billion
2001–02 AES	$44.874 billion	$4.772 billion
Year	**Net asset amount**	**Capital use charge (11% closing assets)**
2001–02 PBS 2003	$44.874 billion	$4.936 billion
2001–02	Unfunded CUC	$164 million

AES – Additional Estimates Statements

Although the CUC is regarded as a return on investment and is therefore reported as a dividend (in the equity note), it provides the cost of capital tied up in a $45.410 billion [PBS 2002–03] net asset balance sheet. The funding for the CUC is provided through the output appropriation. The CUC amount is not very easy to find in the 2000–01 Defence Annual Report as it is reported at Note 26 – Analysis of Equity and does not appear on the face of the Budgeted Statement of Financial Performance. The actual amount paid to the Government in a year is reported under financing activities within the Statement of Cash Flows.

Whilst the capital use charge is more visible on the Budgeted Statement of Financial Performance under 'the total available for appropriation', it is probably more appropriate to take the capital use charge ($5.056 billion) away from the net operating

result ($5.056 billion) to establish the net operating effect of zero, given that agencies are required to achieve a zero result for budgeting purposes. This simpler approach is actually the recommended disclosure by Finance for the PBS format and is easier to understand. Similarly the CUC ($5.056 billion) is often subtracted for the output appropriation ($18.235 billion) to enable underlying trends (not distorted by CUC impact) in output appropriation ($13.179 billion) to be measured.

Budgeted Statement of Financial Position [PBS Table 3.2]

Funding capital

The capital appropriation, called an Equity Injection ($1090 million) is spent on capital (property, plant and equipment, and specialist military equipment). It is disclosed in the Capital Budget Statement [PBS Table 3.4] as a source of funding, in the Budgeted Statement of Cash Flows [PBS Table 3.3] as a financing activity and forms part of Capital (it is the movement between this year and last year) within the Equity part of the Budgeted Statement of Financial Position [PBS Table 3.2].

The equity injection is not the only amount available for Defence to fund capital. As the PBS Table 3.4 Capital Budget Statement (departmental) indicates, capital purchases are also funded from net capital receipts ($40 million) and part of the output appropriation which has not been used for cash related operating expenses (called operating receipts – $2941 million). Failure to achieve capital receipts from sales (as occurred in 2000–01) can cause a squeeze on cash related expenses where the cash is needed to fund the capital program. Defence will in effect receive only $40 million from a budgeted sales program of $700 million, due to the balance of $660 million being returned to government.

The Defence budget includes a Budgeted Statement of Financial Position, which records the budgeted assets and liabilities for each year. The major assets of Defence are:

- **Cash at bank**. Defence usually receives its output appropriation in twenty-six equal drawdowns over the financial year (although this can be varied). This amount represents a price (output appropriation) to cover cash, non-cash expenses and CUC. CUC is adjusted at year-end. For the non-cash expenses such as depreciation, inventory consumption and employee entitlements, the cash is largely applied to buying inventory and capital items. Defence retains some cash to meet future assets and liabilities ($610 million 2002–03 budget).
- **Non-financial assets** such as land and buildings, infrastructure, plant and equipment (which includes Specialist Military Equipment) and intangibles totalling $44 569 million. Defence incurs expenses (in the Statement of Financial Performance) from the use of these assets. This includes depreciation ($2782 million) and write-down of assets on the balance sheet ($100 million). As assets are sold the difference between the written down value of assets and the sale proceeds (Statement of Cash Flows) are reported as profits or losses on sale. Defence has not budgeted for any profit or losses on sale.
- **Inventories** valued at $3127 million. Defence reports the net of gross inventories less a provision for obsolescence. As inventories are used they are expensed in the Statement of Financial Performance as part of suppliers. Actual result for 2000–01

was $574 million Unfortunately, it is impossible to see the amount of inventory consumption, the amount spent on inventory purchases or provision for obsolescence in the budget papers. Given the magnitude of inventory, this should be remedied.

- **Other assets** ($483 million) includes prepayment of expenses and capital items.

The major **liability** reported is employee provisions of $2956 million. This is the amount owed for annual leave and long service leave to employees. Other liabilities include suppliers, which are amounts owing to creditors for goods and services and capital items delivered to Defence.

Equity includes Capital, Reserves (from asset revaluations) and Accumulated Surpluses. The increase in capital over two years is the equity injection. Accumulated surplus movements can be seen from the Budgeted Statement of Financial Performance and include the result for the period, less capital use charge and capital withdrawn. The capital withdrawn figure related to the Government's share of the projected sale of property. This is a return of $660 million (2002–03) from projected collections of $700 million (Statement of Cash Flow). Defence has not budgeted for any profit and loss on sale for these items. Perhaps the assets were revalued to the likely sale value in 2001 actual results.

Budgeted Statement of Cash Flow [PBS Table 3.3]

The Statement of Cash Flow shows cash inflows and outflows by the key categories of operating, investing and financing activities. It is interesting to note how net cash from one activity has been used by other activities. The CUC is not disclosed as an operating outflow, however it is useful to net cash flows from operating activities of $8119 million for the capital use charge ($5056 million) as the funding for the CUC is included in the output appropriation. This gives $3063 million operating inflows which can be used for investing (assets and liabilities) or financing purposes.

It is possible to see how much of the excess operating cash is used to purchase capital items by looking at PBS Table 3.4 Capital Budget Statement. Of the $3063 million net operating cash calculated above, $2942 million has been used as funding for capital, referred to as 'operating receipts' under Total Capital Funding. This amount reflects funding in the output appropriation for depreciation and other non-cash amounts that is being applied to buying assets. Equity appropriation is reported as equity appropriation. The closing cash at bank should agree to the asset, cash on the Budgeted Statement of Financial Position.

Administered [PBS Tables 3.6–3.8]

Administered items are those items which are controlled by the Government, but managed by Defence on behalf of the Government. Except for some minor expenses funded from Annual Appropriations ($181 million), this includes Special Appropriations for the DFRB Scheme, the MSBS and the MSBS payments. The Budget for 2002–03 introduced a new subsidy to enable military staff to acquire or renovate new homes.

The amount drawn down and paid from Special Appropriations appears in the PBS Table 3.8 Note of Administered Cash Flows ($1306 million). This differs from the

Appropriations from Government amount appearing in the PBS Table 3.6 Note of Budgeted Revenues and Expenses Administered on Behalf of the Government ($2205 million) and PBS Table 1.4 by the non-cash increase in the Military Benefits Provision ($900 million). The provision for military benefits of $28 billion in PBS Table 3.7 Note of Budgeted Assets and Liabilities Administered on Behalf of Government is the liability owing to retired and current ADF members and is subject to actuarial assessment. This is summarised as follows:

Item Ref	Description	2002–03 $'000s	Source
A	Military benefits and subsidy paid	1 305 700	Note of Budgeted Administered Cash Flows
B	Military benefits (increase in provision)	900 000	Military benefits-provisions and payables this year less last year
C=A +B	Military benefits expense and subsidy	2 205 700	Note of Budgeted Revenues and Expenses Administered on Behalf of Government
D=C	Appropriations from government	2 205 881	Note of Budgeted Revenues and Expenses Administered on Behalf of Government
Shown as	Appropriations from government	2 205 700 181 2 205 881	Table 1.4 Total Appropriations for Defence 2003–03 –Special Appropriations –Annual Appropriations

Contributions to the superannuation funds is shown as Other Revenue of $682 million, which along with dividends received from the Defence Housing Authority ($212 million) is then passed on to the Government as Cash to the Official Public Account.

Defence reports administered appropriation revenue inconsistently between the budget papers and annual report. The budget papers recognise the appropriation revenue to include both cash and non-cash expenses whilst the actual figure for 2001 recognises appropriation revenue on the basis of cash expenses only.

Accrual output budgeting framework

The treatment of some items within the Defence budget statements, although in accordance with the accrual output budget framework raise some issues surrounding the application of the framework.

Level of Capital Use Charge (CUC)

Defence calculates the CUC in accordance with Finance guidelines which includes budget funding for CUC based on 11% of opening net assets plus equity injection. Defence is not required to reduce the budget funding by the return of capital to government (the opposite of an equity injection) despite the reduction in net assets. It would appear this will result in additional funding to Defence of $73 million (being 11% of $660 million), and Defence may keep the difference to be used for other purposes.

Usefulness of the CUC

Debate surrounds whether the CUC provides a useful mechanism within the accrual output framework, particularly as its impact has the appearance of being notional and is separately disclosed as a dividend. Furthermore, given that the major capital expenditure for Defence is driven through a twenty-year major capital investment program the CUC is not

necessarily a major driver to change management approaches to asset management.

Reporting Requirements

The budget reporting requirements (called PBS Guidelines) and the actual reporting requirements (covered by Finance Minister's Orders) are inconsistent and constantly changing, this does not aid in the understanding or comparability of budget or actual information.

Cash Held

Defence's level of cash holdings increases from $610 million in 2002–03 to $772 million in 2004–05. This is a large cash holding which is able to build up in the accrual framework due to funding for depreciation and accruals such as long service leave. Is it prudent for the government to enable such a large cash holding to remain within a single department? Perhaps a more appropriate (and business like approach) would be for the cash to be returned to government as a capital withdrawal and returned to Defence when required as an equity injection.

Capital Budget [PBS p.75–91]

The capital budget covers expenditure on military and non-military assets including property. The 2002–03 estimate of $4072 million is a substantial increase on the $3469 million allocated in 2001–02 and the $3413 million and $3089 million expended in the two previous years.

The bulk of the Capital Budget is expended on major capital equipment projects, capital facilities projects and minor capital projects. These do not match with the accounting categories used in the PBS.

Table 2.3.7: Defence Capital Budget 2002–03

Category	Total $m
Specialist Military Equipment	3 586.9
Land and Buildings	220.9
Other Equipment and Infrastructure	253.4
Software and Other Intangibles	11.2
Total	4 072.4

Major Capital Equipment [PBS pp.75–83]

There are currently around 245 Major Capital Equipment Projects with a total approved value close to $47 billion. The delivery of this program is the responsibility of the Defence Materiel Organisation (DMO).

New projects

In the 2002–03 Budget the Government foreshadowed 24 new projects to be brought forward for Government approval. This means that Government is yet to take a final decision on the projects but they anticipate doing so this year. The value of the projects is undisclosed but the Minister has said that $6.4 billion of acquisition and support projects are planned to commence in 2002–03. Last year 38 projects valued at $5.5 billion were approved, whereas the year before (1999–2000) only three projects were approved. The very low commitment to new projects in 1999–2000 reflected a pause during the development of the White Paper, and the high commitment in the following two years probably reflected a catch-up on the commencement of new projects and the impact of White Paper funding.

The Defence Capability Plan is the Government's plan for future yet-to-be-approved major capital equipment projects. In mid 2001 Defence published an unclassified version of the Government's Plan, it can be found at on the Defence web site. The unclassified plan provides a wealth of useful information. Because the PBS does not provide costs or schedule information for the listed new projects, we have extracted the in-service-dates and estimated expenditure ranges from the unclassified Defence Capability Plan where possible.

Of the twenty-four projects foreshadowed in this year's PBS:

- Two old problem projects that have stalled are to be reconsidered: air-to-surface weapons system for the F-111strike aircraft and the M113 upgrade. Similarly, the replacement of the Standard-1 surface-to-air missile as part of the previously approved FFG Frigate upgrade is foreshadowed for consideration (see Section 5). All of these projects pre-date the Defence Capability Plan.
- One is part of a project originally approved before 2001–02: The ANZAC Undersea and Surface War-fighting Upgrade Program. Previously the Harpoon anti-ship missile was approved for equipping the Anzac Frigates and now the mine and obstacle avoidance component has been approved. The third part of the project, to acquire a torpedo self-defence capability, has been deferred to beyond 2002–03. The total project has an in-service-date of 2007 and is in the price range $150 million to $200 million. The Harpoon missile capability will enter service in 2004.
- Three are large projects originally planned for approval in 2001–02 which are now one year behind (although this does not necessarily mean that the in-service-date has slipped):
  - Anzac anti-ship missile defence with an in-service-date of 2007 and an estimated cost of $450 million to $600 million,
  - additional troop lift helicopters with an in-service-date of 2007 and an estimated cost of $350 million to $450 million, and
  - replacement patrol boats with an in-service-date of 2004–05 and an estimated cost of $350 million to $450 million.
- Eleven are projects scheduled for approval in 2002–03 within the Defence Capability Plan:
  - accredited secure intelligence facilities with an undetermined in-service-date and an estimated cost of $10 million to $20 million,
  - air-to-air refuelling capability with an in-service-date of 2006 and estimated an cost of $1500 million to $2000 million,
  - a new phase for battlefield command support system project with an undetermined in-service-date and an estimated cost of $20 million to $30 million,
  - battlespace communications (land) project with an undetermined in-service-date and an estimated cost of $75 million to $100 million,
  - defence management systems improvement project with an undetermined in-service-date and an estimated cost of $30 million to $50 million,
  - direct fire weapons with an in-service-date of 2005 and estimated an estimated cost of $150 million to $200 million,
  - enhanced bridging capabilities with an in-service-date of 2005 and an estimated cost of $50 million to $75 million,

- geospatial information infrastructure with an undetermined in-service-date and estimated an estimated cost of $10 million to $20 million,

- new aerospace combat capability – option definition studies at an estimated an estimated cost of $50 million to $75 million (this relates to AIR 6000 which is the project to replace the FA-18 fighter and F-111 strike aircraft at an estimated cost of $10 500 million to $12 000 million beginning in 2012),

- Nulka active missile decoy project with an undetermined in-service-date and an estimated cost of $20 million to $40 million, and

- electronic warfare self protection for tactical aircraft project (Project Echidna). This will provide electronic warfare self protection to Blackhawk, Chinook and C-130 J aircraft with an in-service-date of 2004–05 at an estimated cost of $150 million to $200 million.

- One project is a previously unannounced study phase for the ($3500 million to $4500 million) air warfare destroyer project known as SEA 4000.
- One is a project for high frequency surface wave radar. This project is not in Defence Capability Plan. The Commonwealth Budget Papers No. 2 includes an Australian Customs Service project valued at $12.8 million across four years with this same title. It may be that Defence is acquiring this capability for Customs or that this is a separate project.
- Two projects are new budget measures. One for the establishment of an incident response regiment ($36 million over four years) and another for the purchase of explosive ordnance $20.9 million (see Section 2.1).
- One is a real cost increase to an already approved phase of the general service field vehicle project.

The final project included in the PBS is the Collins submarine combat system. It is not clear how to relate this to the Defence Capability Plan due to recent changes to the plan for fixing the Collins class submarine (see Section 5).

Projects scheduled for a 2002–03 year of decision in the Defence Capability Plan but not listed in the PBS as being considered by Government are:

- Defence Wide Area Communications Network ($30 million to $50 million).
- High-grade Cryptographic Equipment – Project Definition Study (less than $10 million).
- Seahawk Mid-life Upgrade – Project Definition Study (less than $10 million).

These projects may not have been included because of their relatively small project costs.

Existing projects

The PBS lists the top 20 major capital equipment projects by 2002–03 *expenditure* [PBS table 3.10] and provides a narrative description of each. Useful as this is, some large projects may not appear simply because they fail to spend enough in 2002–03.

In the past, problem projects like Bushranger and the M113 upgrade projects have fallen into this category.

To improve the information available, ASPI commissioned a team of Defence journalists to research the top 20 projects for 2002–03 (see Section 5). We were unable to exactly anticipate all the projects so some additional information has been collected. A collection of the recent publicly available information on the status of the top 20 projects appears in Table 2.3.8.

Table 2.3.8 Recent public information on top 20+ major capital equipment projects

Project	Expenditure ($m)			Delay 2002–03 PBS	Delay annual report	2000–01 annual report
	Approve	To June 2002	2002–03			
Airborne Early Warning and Control	3455	385	404	nil	–	–
ANZAC Ship Project	5279	4462	258	nil	12 months	Partially achieved
FFG Progressive Upgrade	1413	669	165	24 months	yes	Partially achieved
Minehunter Coastal	1241	1071	61	–	–	Achieved
Evolved Sea Sparrow Missile	280	39	58	yes	yes ~6 months	Partially achieved
New Submarine – Collins	5112	5006	55	yes	Yes	Partially achieved
Underwater and Surface Warfighting Upgrade	167	33	43	yes (partial)	–	
Collins Class Submarine Augmentation	228	168	40	?	nil	Achieved
FA–18 Hornet Upgrade	1524	378	222	Yes (partial)	6 months	Partially achieved
Armed Reconnaissance Helicopter	1858	123	176	nil	–	
Air-to-Air Weapons Capability Phase 1	310	205	96	nil	6 months	Mostly achieved
P-3C Update	903	667	91	38 months	yes	
Air-to-surface stand-off weapon capability	335	241	78	nil	–	
Anzac Ship Helicopter	1017	787	72	42 months	24 months	Not achieved
Australian Light Armoured Vehicles	616	161	134	nil	–	
Bushranger Infantry Mobility Vehicles	316	70	60	24 months	18 months	Not achieved
High Frequency Modernisation	585	251	83	nil	nil	Partially achieved
Military Satellite Payload	375	284	60	nil	6 months	Partially achieved
Defence Messaging and Directory Environment	107	27	50	nil	–	

Tactical Air Defence Radar Systems	203	127	42	yes	16 months	Partially achieved
Additional Projects included in ASPI top 20						
JORN Over the Horizon Radar				nil	–	
Strategic Airlift C-130J				nil	nil	Partially achieved
Lead in Fighter - Hawk				nil	3 months	Partially achieved
Replacement Patrol Boat				nil		

Defence's most recent public assessment of project achievement can be found in the 2000–01 Annual Report. Of the twenty-two projects considered, four were achieved, three were substantially achieved, eleven were partially achieved and four were not achieved. This information has been included in Table 2.3.8 where possible.

This quick survey has some interesting results. Of the twenty-four projects considered, around half have reported delays of some sort in either the 2000–01 Annual Report or current PBS. Some care must be in interpreting this figure because some of the delays only impact a small part of a project, although in other instances there may have been delays in previous reporting periods that are not captured, for example JORN.

It is fair to say that many of the problems reflected in Table 2.3.8 are due to decisions that were taken long ago. It may be that the Defence Material Reform (see Section 2.4) will allow more timely delivery of projects within cost. Only time will tell.

While there is no comprehensive public reporting on DMO performance, some data is available on how DMO assesses industry's performance. In a recent speech, the Under Secretary Defence Materiel (*Defence Watch*, April 2002) released some of the results from the third round of assessment. Most concerning was that, although there had been a 10% improvement against the performance indicator for schedule, 62% of contractors remained on a rating at or below marginal performance. In the future, the DMO will be subject to 360 degree feedback from companies.

Is the Government's Defence Capability Plan going to be delivered?

It is difficult to answer this question on the basis of the very fragmentary disclosure to date about newly approved and existing major capital equipment projects.

What we know:

- Project approvals are proceeding more or less on the schedule set out in the DCP.
- The 2002–03 budget deferred $150 million of projects and the 2001–02 PAES deferred a number of new asset acquisition projects to a value of $60 million although it is unclear if this involved capital equipment or not.
- Delays continue to arise in major capital equipment projects.

What we don't know:

- We do not yet know if the recently approved projects have required more or less money than that allocated in the Defence Capability Plan, nor do we know if their estimated future operating costs have grown or contracted. Although one project has received a real cost increase in 2002–03.
- We do not know if the in-service dates of the foreshadowed Defence Capability Plan projects have changed.

The Annual Report will report progress on the implementation of the White Paper including those major capital investment projects the Defence Capability Plan. This is a welcome initiative. We discuss ways to improve transparency in major capital equipment projects in Section 4.

Facilities Projects [PBS pp.84–91]

There are currently 102 Capital Facilities Projects with a total value of $1919 million approved by Government. The delivery of this program is the responsibility of the Defence Estate Organisation.

In the 2002–03 Budget the Government approved three new capital facilities projects and has foreshadowed eight more. This is a small increase from the eight projects approved last year, and a significant boost from 1999–2000 in which no new projects were commenced. The very low commitment to new projects in 1999–2000 represented a pause during the development of the White Paper.

The [PBS Table 3.11] lists fourteen significant facilities projects that will spend more than $5 million in 2002–03, the largest of which are barracks redevelopments and facilities for the AEW&C capability. In total, the capital facilities expenditure for 2002–03 is budgeted to be $355.1 million. We do not know why the $221 million in the capital budget for land and building [PBS Table 3.9] is so much less.

Defence's program of approved and yet-to-be-approved facilities projects is called the Green Book. It can be found on the Defence web site.

The PBS provides financial information on all facilities projects by electorate [PBS Table 3.12]. As a general rule Defence facilities projects are delivered on time and within budget.

Capital Sales and Receipts [PBS p.63]

The capital budget is funded in part through the proceeds from sales of property, plant and equipment and other capital receipts. Interestingly, capital receipts from the sale of specialist military equipment and 'other capital receipts' abruptly vanished from the budget and forward estimates in the 2001–02 PAES. This may just be an accounting change.

In recent years the Government has set an ambitious goal for the sales of assets that have not been met. This year, the Government has again planned to sell $700 million in assets, mostly buildings and property. Table 2.3.9 show the recently planned and achieved assets sales within the Defence Capital Budget.

Table 2.3.9: Capital Budget Asset Sales

	Planned ($m)	Achieved ($m)	Shortfall ($m)
DRP to June 2000	–	77	–
2000–01	820	87	733
2001–02	1023	199	824
2002–03	660	?	?

DRP – Defence Reform Program

The reasons given for Defence's recent failure to achieve budgeted property sales include:

- delays in achieving appropriate zoning decisions from local and state Government to allow Commonwealth land to be used for non-Commonwealth uses, and
- some of the sales are contingent upon decisions about outsourced functions that may, or may not, require the lease back of properties.

In the context of the 2001–02 PAES considerations, Defence said that there is confidence that some of the sales deferred from 2001–02 will generally go ahead in 2002–03. Given past performance, the projected receipts of $600 million is a very ambitious target. Care will be needed to ensure that too hasty a disposal of the assets does not result in a less than optimal return to the Commonwealth.

2.4 Enabling business processes [PBS Chapter 4]

Where are the enabling executives?

Five pages of the PBS titled Enabling Business Processes are devoted entirely to improvement initiatives. There is no overview, financial or otherwise, of the enabling business processes undertaken by the DMO or the Corporate Services and Infrastructure Group. These so-called 'enabling executives' together employ over 13 700 people and expend around $7 billion of Defence funds. This far exceeds the scale of the majority of Commonwealth Government agencies. It is therefore disappointing that so little disclosure is made of their budget and performance plans.

The six separate enabling business process issues examined in the 2003–03 PBS are efficiencies, commercial support program, customer–supplier arrangements, defence materiel reform, management information systems and evaluations. In this section we look at each in turn.

Efficiencies [PBS p.95]

The White Paper has set goals for Defence efficiency savings of $50 million in 2001–02, $100 million in 2002–03 and $200 million per annum in 2003–04 and thereafter. The White Paper indicates that these savings were expected to be delivered from 'further efficiency measures underway'. The White Paper also said that additional substantial efficiencies can be made in the areas of:

- property disposal;
- greater use of contracting out;
- improved IT management; and
- reduced personnel overheads.

It is difficult to identify which, if any, of the initiatives listed in either the 2001–02 PBS or the 2002–03 PBS relate to the initiatives referred to as 'already under way' in the White Paper.

In the 2001–02 PBS, Defence sought to save $50 million through a package of unrelated administrative cuts and a windfall gain from previous years' FBT refunds. The 2002–03 PBS says that total savings are now projected to be $146 million in 2001–02, a gain of $96 million in four months. This is an impressive result considering that the total recurrent savings from the Defence Reform Program claimed by Defence only amount to $644 million on top of $125 million of recurring administrative savings in made in 1996–97.

In 2002–03 the planned efficiencies [PBS Table 4.1] total $204.5 million including a $97 million dollar budget measure for administrative efficiency to be directed towards operational requirements, and $107.5 million in savings corresponding to the White Paper goal.

Reprioritisation of Defence administrative spending to operational requirements

This budget measure will redirect $97 million to meet operational requirements through efficiencies to the $2.9 billion Defence administrative budget excluding repairs and maintenance. To give some measure to the $97 million cut, actual expenditure from the 2000–01 Annual Report is provided below on some of the specific items mentioned in the context of this budget measure.

Table 2.4.1 Administrative Expenses

Administrative Expenses	2000–01 ($m)
Travel Overseas	61
Travel	162
Consultants and Professional Services	182
Facilities Operations	297
Advertising	45
General Goods and Services	529

The $100 million White Paper efficiency goal for 2002–03

Defence will exceed the $100 million target by $4.5 million through a range of measures including a 're-basing' of group budgets ($69 million) and a $20 million travel saving. The PBS says that this money has been directed to meet existing, emerging and new Government directed initiatives and operations. Given that $100 million of this savings was factored into the delivery of the White Paper, only $4.5 million remain for emerging and new Government directed initiatives.

The efficiencies listed do not seem to include any of the unrealised Defence Reform Program (DRP) savings that remained to be achieved at the close of the DRP. The Department has indicated that 47 initiatives which were not completed at the time of the closure of the DRP, but which would realise an additional $70 million to $80 million in recurrent savings, would be carried forward for management in Defence's improvement initiatives (DRP Final Report, May 2001). It is not clear what has happened to these prospective savings.

The 2002–03 PBS advises that for 2003–04, the recurrent savings of $200 million will be obtained from a combination of further Commercial Support Program initiatives, and other yet to be developed initiatives. This raises the following questions:

- If $69 million was saved by re-basing Group budget allocations, why does this new baseline not provide recurring savings?
- If the Commercial Support Program initiatives are to be used to contribute to the $200 million efficiency targets in 2003–04, why were they not also included as contributors to the efficiency targets in 2001–02 and 2002–03?

Defence's approach to achieve the White Paper efficiencies targets seems to be to pull together a grab-bag of initiatives as part of the budget preparation process each year to achieve dollar savings. The Portfolio Budget Statements over the past two years give no sense of a plan to achieve the White Paper efficiencies, or to achieve efficiencies in the other areas identified in the White Paper.

It is clear from Defence's reporting on both the Defence Reform Program and the Corporate Support Program, that many initiatives have long lead times before they can be implemented. It is essential that efficiency programs be deliberately planned and implemented.

Commercial Support Program [PBS pp.98–99]

The Commercial Support Program is a long-standing Defence program that market-tests activities against commercial alternatives. The 1998 ANAO's audit of the Commercial Support Program said that Defence had market-tested $1.5 billion worth of activities against which were reported recurrent annual savings of $155 million or around 10%. While the ANAO considered that the exact savings could not be adequately quantified they concluded that CSP activity does result in at least moderate savings.

In 1998 the Joint Standing Committee on Foreign Affairs, Defence and Trade suggested that the short-term gains from CSP might not be sustainable into the medium term. The risk being that costs will rise when monopoly contracts are renegotiated in the absence of a pool of trained ex-Defence personnel for the contractor to employ.

Market testing decisions are expected on 2005 positions during 2002–03 [PBS Table 4.2] while market testing will continue on thirteen separate activities [PBS Table 4.3]. This is nominally comparable with 2001–02 where the figures were 1861 positions and sixteen activities respectively at the time of PAES. However, the 2001–02 details include the 1392 positions tested under the Defence Integrated Distribution System activity, for which a decision is expected in July 2000.

Customer–Supplier Arrangements [PBS pp.99–100]

The 2001–02 PBS said that an internal customer–supplier model would be integrated across Defence as part of an integrated group performance monitoring arrangement. The 2002–03 PBS advises that implementation is continuing with a mature model to be in place in 2003–04. The customer supplier arrangements would link the enabling and output groups with the outputs being the customers and the enablers the suppliers (see Section 2).

Defence Materiel Reform [PBS p.99]

The DMO was formed on 1 July 2000 by bringing together the Defence Acquisition Organisation and Support Command Australia. Key elements of the accompanying Defence Materiel Reform program include collocation of acquisition and support elements near customers, a strategic approach to industry relationships and adoption of commercial approaches and best practice.

It is difficult to assess the progress of the reform program from publicly-available data. Although there appears to have been some difficulty in relocating staff out of Canberra. (See question on notice W1 20–21 February 2002 Senate Foreign Affairs Defence and Trade Legislative Committee.) Defence also advised that the estimated cost of the Defence Materiel Reform program would be approximately $150 million over six years. This represents the cost of establishing 'systems program offices' that will integrate acquisition and through-life support activities for particular capability

platforms at sites around Australia. The $150 million includes the cost of relocating staff, accommodation and information technology. It is unknown whether this money is part of DMO corporate overheads or if it represents a diversion of funds away from capital investment.

At the same time, Defence said that the establishment of systems program offices would improve the *efficiency* and effectiveness of capability delivery over the life of a weapons system. A gain of only 1% in the efficiency of capability delivery by DMO would yield annual savings of around $45 million per annum. This begs the question of what gain in efficiency is being sought and how it will be measured.

A summary of progress to date was given by the Under Secretary Defence Materiel in an address to *Defence Watch* on April 2002. As in 2001–02 the PBS, a list of initiatives has been given for the Defence Material Reform program. These are not reproduced here.

An important point to make is that the Defence Material Reform program is focused on the post-Government approval process. The pre-Government approval process has arguably contributed at least equally to the past poor delivery of acquisition projects. It is unclear how much attentions this is receiving.

Management Information Systems

Defence has long been hampered by ineffective management information systems. The very short discussion in the PBS beguiles both the importance and the difficulty of improving Defence's capability in this area. The extent and impact of these problems can be gauged by the fact that, in 2001, Defence signed its financial statements some ten weeks after the agreed timetable.

The improvement of Defence's business processes and information systems is fundamental to the delivery of cost effective military capability. As the ANAO observed: 'The strategic capability of Defence is build upon the quality of the operational and financial analysis of competing strategic options' (Control Structures as part of the Audits of the Financial Statements of Major Commonwealth Entities for the Year Ended 30 June 2001).

In 2000–01 the Government allocated $40 million for the improvement of corporate management systems, of which $35 million was subsequently deferred to 2001–02. But this was only one part of a major ongoing investment in Management Information Systems. Defence is planning to invest between $150 million and $230 million to improve its logistics systems and its linkages to other systems (see projects JP 2077 and JP2080 in the unclassified Defence Capability Plan). This is on top of investments in recent times to improve financial (ROMAN) and personnel systems (PM keys) at unknown costs. The 2001–02 PBS advised the finalisation of ROMAN in 2001–02. It also advised the finalisation of PM Keys, but this was subsequently deferred at Additional Estimates to early 2002–03.

The Defence Portfolio Budget Statements 2002–03 identifies as a key area of risk the challenges in generating performance management information to support active and informed decision making. This will require further investments beyond the existing accounting, logistics and personnel transaction recording systems to:

- link output and sub-output non-financial and financial information;
- identify the cost impact of changes to levels of preparedness; and
- identify the key cost drivers affecting the price of outputs.

The Defence Portfolio Budget Statements 2002–03 provide some evidence that Defence is addressing these issues. They state that Defence is improving decision support by remediating management systems to support performance management, and giving priority to the development of product costing, preparedness and performance reporting (balanced scorecard) capabilities.

However, greater clarity is needed on just what these initiatives entail, when they will be implemented and what will they cost. Greater confidence in Defence's capacity to deal with this critical issue would be achieved if Defence were to present a clear strategy which succinctly identifies the various key initiatives and why they matter, with appropriate milestones and target completion dates, and their costs. Inclusion of such information in the Portfolio Budget Statements would provide greater transparency of the progress Defence is making.

Evaluations [PBS p.85]

The PBS lists three evaluations for calender year 2002 and three for 2003.

For 2002 the most interesting will probably be the evaluation of the Impact of Accrual Accounting on Management Practices. The sorts of questions it might answer would include: Is better decision support information available? Are better investment decisions being made? Has asset management been improved? Has the Capital Use Charge had any impact on management behaviour? What lessons have been learned?

Another interesting evaluation will be the implementation of the Balanced Scorecard. While the level of publicly-available performance information on Defence has dropped substantially in recent years (see Section 4), indications are that internal performance reporting has improved significantly. It will be interesting to see what has been achieved and how this might support better external reporting.

2.5 People matter [PBS Chapter 5]

How big is the workforce?

In 2002–03 Defence will employ an average of around 51 300 full time military personnel; 17 300 civilians; and 20 000 Reservists.

Estimated Service and civilian personnel numbers appear in tables 5.1, 5.2 and 5.3 of the PBS (as average funded strengths). The figures are those which are expected to be achieved in 2002–03. The White Paper target is to build a force of 53 553 permanent ADF personnel by 2010.

Table 2.5.1: Workforce summary

	2001–02 estimate	2002–03 budget	Target (2010)
Navy	12 570	12 838	14 000
Army	25 007	25 289	26 000
Air Force	13 291	13 196	13 555
TOTAL	50 868	51 323	53 555
Reservists	20 150	20 018	?
Civilian	17 011	17 328	n/a

All three of the services raise the problem of personnel shortages in the 'Government as Customer' (Outputs) section of the PBS (pp.27–55). The size of these shortfalls is not quantified anywhere in the PBS but detailed numbers were given in an answer to a question on notice from the 2001–02 PAES consideration by the Senate Legislative Committee (Question W36). The results are confusing, with the total shortfall in 2001–02 amounting to over 5000 positions. But if this is added to the 50 868 estimated strength in that year, the total then exceeds the White Paper target by over 2300. Moreover, the 'target strength' for Army in 2002–03 comes to over 27 100.

It appears that the target strengths against which the ADF measures shortfalls exceed the Government's White Paper goal of around 54,000. (Some care must be taken with the 'average funded strength' figures given in the response, they do not add up.)

Historical personnel numbers are provided in Section 6. In the decade since the Force Structure Review in 1991, ADF numbers have dropped from around 70 000 permanent and 30 000 reserve personnel to 50 000 permanent and 20 000 reserves. Over the same period civilian numbers have dropped from around 25 000 to 17 000. These reductions have been the result of various efficiency programs including the Defence Reform Program and the Commercial Support Program.

How much do personnel cost?

Personnel expenses in 2002–03 will be around $5.8 billion rising to $6.7 billion in 2002–06 [PBS Table 3.1] an average per annum increase of 4.6% for a workforce that is planned to grow only slightly over that period. This is consistent with historical data where nominal per capita growth has been 4.9% or around 1% real. (Some early printings of the White Paper incorrectly said 4.9% real growth.) This is above the average increase in personnel costs in the community as a whole for that period. In the

past the growth in personnel costs has been a pressure on the Defence budget that has arguably been the driving force behind efficiency initiatives (see Section 3).

The White Paper factored in an annual 2% real growth in per-capita personnel costs. This exceeds the historical trend. Consequently, personnel expenses should not become a pressure on the budget provided that personnel numbers remain within White Paper estimates. In any event, even small excesses in annual growth above the 2% allowed for will grow on a base of almost $6 billion.

So, on a per-capita basis, the White Paper has provided for personnel cost growth. But what was assumed about personnel *numbers* when calculating the White Paper funding increases and the $431 million for force expansion? Following advice from Defence we think the situation is as follows:

In November 1999 the Prime Minister announced in the context of the East Timor deployment that around $400 million a year, for two years, would be allocated to Army and Airforce to increase in size from 23 000 to 26 000 and from 13000 to 13 500 personnel respectively. This would have given an ADF of around 53,500.

However, by the time of the White Paper twelve months later, the planned number of military personnel had been reduced to 51,256 by 2003-04. This was to offset some of the cost pressures leading up to the White Paper. During the White Paper, a goal of around 54,000 by 2010 was set with funding available to grow personnel numbers from the 51,256 base commencing in 2004-05. Meanwhile, the additional force structure provided by the East Timor funding (now $431million) remains in Defence's base and contributes to overall planned growth.

If this is correct, then Defence is currently funded for an ADF of 51,256 which is just a little below the budget estimate for this year. Thus, personnel cost pressures should not arise. What remains unclear is whether the budget measures for the tactical assault capability and the incident response capability require additional personnel or if they included additional personnel funding. The apparent drastic shortfalls mentioned earlier also remain unresolved.

Personnel structures

Distribution of military ranks and civilian levels

The breakdown of ADF personnel by rank and civilians by level appears in Table 5.4 of PBS. The proportion of permanent force officers has risen as the size of the ADF has contracted over the last decade (see Section 6). International comparative data ishard to find but a study undertaken by the Canadian national defence organisation in 1997 provides some interesting results, Table 2.5.2. *(Benchmark Paper of the Armed Forces of Australia, Italy, Netherlands, Sweden, UK and Canada.)* Care must be taken in comparing with the UK and Italy because of problems of scale, and we have excluded data from Sweden because of their peculiar reliance on a large reserve force. More recent figures from the UK and US are around 19% and 16% respectively although they both have much larger 'economies of scale'.

Table 2.5.2: Permanent force numbers

	Australia 2002	Australia 1996	Australia 1991	Canada 1996	Italy 1996	Netherlands 1996	United Kingdom 1996
Total strength	51 323	57 580	69 158	61 600	315 500	53 500	216 000
Officers	10 998	12 063	12 426	13 300	24 900	9 300	32 800
Officer (%)	21.4	20.9	17.9	21.6	12.7	17.3	15.6

The recent trend in star rank, senior executive, and senior officer numbers is shown in Table 2.5.3. Changes in reporting account for the gaps. Growth has been strongest on the civilian side. In addition, the number of Senior Executive Service (SES) officers has increased, from five Band 3 officers to seven plus an under-secretary since the DRP. Nevertheless the ratio of SES to civilian officers is consistent with Australian Public Service (APS) norms having been lower than average in the past. It is more difficult to benchmark the military numbers although in 1996, the Canadian Forces (then 61 600 strong) had eighty Star level officers and the Netherlands (then 53 500 strong) had 112 Star level officers. Such comparisons are problematic because of differences in rank structure between armed forces.

What is most striking from Table 2.5.3 are the large numbers of civilian senior officers compared with the armed services.

Table 2.5.3 Numbers of senior ranks and executive levels

	1989–99 Actual	**1999–2000 Actual**	**2000–01 Actual**	**2001–02 Estimate**	**2002–03 Budget**
Civilian					
Senior Executives	101	107	103	115	117
Senior Officers*	–	–	3317	3163	3278
Military					
Star Officers	110	–	120	121	118
Senior Officers**	1360	–	1415	1449	1366

*Executive Level 1 and 2 Levels.
**Colonel and Lt Colonel Ranks.

Reserves

The White Paper states that the strategic role of the Reserves has now changed from mobilisation to meet remote threats to supporting and sustaining contemporary military operations.[1] Revised Defence Reserve legislation came into effect in April 2001, enabling Government to call out the Reserves for a wide range of operations.[2] This requires that Reserve capabilities be fully developed, albeit generally at lower readiness than the Permanent Force. The PBS reports that Reserve numbers are expected to drop from 20 150 in 2002–02 to 20 018 in 2002–03 due to recruiting difficulties in Army partially offset by increased participation by Navy and Air Force.

[1] Defence 2000, p.96
[2] Defence Annual Report 2000–10, p.14

The annual separation rate in the Reserves has been around 20% for the past 10 years, including transfers to the Permanent Force. However, it is the shortfalls in recruitment, not separations, that has caused the reduction in numbers.[3] The impact of the shortfalls has been greater than in the Permanent Force. Recruitment to the Reserves is shown in Table 2.5.4.[4]

Table 2.5.4: Reserve recruitment

	Target	Achievement
1997–98	4847	4810
1998–99	4760	2400
1999–2000	5008	1550
2000–01	5232	2566

The introduction of Common Recruit Training in 1998–99 was considered by the ANAO to have had a marked (adverse) impact on Reserve recruiting.[5] The decline in 1999–2000 was principally in Army (1417 recruited against a target of 4785, having exceeded the target in 1997–98). There was some improvement in 2000–01, with achievement almost 50% of the target of 5232.[6]

The ANAO noted that conflict with work, family and study commitments is an important part in Reserves' decision to separate, while career prospects and job satisfaction appear to be primary motivators for remaining. Job satisfaction is most likely to be achieved with clearly defined roles and tasks for the unit and realistic, challenging training linked to those roles and tasks.[7]Training needs to be flexible, geared to what can be achieved by Reserves with limited training time.[8]

Contract Personnel – Professional Service Providers

Many of the positions eliminated in both the Department and ADF across the 1990s were replaced under formal contracts to deliver specific services (eg base support, catering or maintenance). However, it is not clear to what extent contract personnel or professional service providers have also replaced other civilian or military staff, thereby negating the effect of the reductions. Having said that, professional service providers are an important component of the modern Defence workforce. Their use parallels an increasing reliance on contract staff in the private sector.

The 2000–01 Annual Report lists a total of only 69 consultants at a cost of $5.9 million. At the same time however, total expenditure of $182 million was recorded against 'consultants and professional services', although it is not clear what is included in this expense category. Yet it is clear that significant sums of money are being spent on professional service providers, because a savings measure of

---

[3] Australian Defence Force Reserves, p.134

[4] ANAO Report No. 33 of 2000–01, Australian Defence Force Reserves, Commonwealth of Australia, 2001, p. 126; Defence Annual Report 2000–01, p.311

[5] Australian Defence Force Reserves, p. 127

[6] Defence Annual Report 2000–01, p. 311

[7] Australian Defence Force Reserves, p. 139

[8] Australian Defence Force Reserves, pp. 136–37

$12.7 million was included in the 2001–02 budget called ‘more cost-effective employment of professional service providers’.

Just as it is important to have full transparency of the numbers of civilian and military personnel we should be able to see the number of professional service providers employed by Defence. And as with Defence personnel, it would be informative to see something akin to their distribution by level. For professional service providers this could equate to total numbers and the distribution of cost.

Development of the Combat Forces

The DRP proposed to reduce the funded strength of the ADF permanent force from 56 600 to 42 700, with a buy-back to around 45 000. However, DRP savings were used to buy-back 7300 positions to create an ADF of 50 000. The 2000–01 Defence Annual Report said that increasing the personnel in the combat force from 24 300 to 31 700 represented the largest reinvestment of DRP savings.

This corresponds to a shift from 42% of the total permanent ADF personnel in the combat force in 1996 to over 60% in June 2001, and an additional 7400 new positions in the combat/combat related force. However, it is not clear where these additional personnel have been placed, nor where they came from.

The 2000–01 Annual Report gives the number of ADF positions reduced or redirected to priority areas under the DRP as 9004 at June 2001. The reduction in the average strength of the permanent ADF up to that time was at very least 56 600 – 50 355 = 6245. This leaves at most some 2759 funded positions that could have been redirected to combat and combat related roles. Consequently, if the ADF does have a 62% combat component, it is difficult to see how this could be more than partially a result of DRP. In fact, there appear to be at least 7400 – 2759 = 4641 additional combat positions created through other means. Even if we add the 3555 positions funded through the East Timor force expansion provision of $431 million there are still a 1000 positions left to find.

It is possible that other changes in the force structure have boosted the number of personnel in the combat force. However, this is difficult to see given that the number of aircraft held by the Air Force has not increased markedly since 1996, nor has the number of ships in the Navy. Navy should have, if anything, a reduced requirement for personnel at sea due to the retirement of labour intensive platforms, replaced by others with smaller crews.

With the caveat that it is difficult to understand how Defence personnel are employed on the basis of available information, it appears unlikely that the DRP has delivered the claimed 7400 additional combat personnel. Moreover, even if the 3500 separately funded additional positions are added, it is hard to see where the remaining positions are.

Personnel Policy and Management

Defence has adopted a ‘results through people’ approach. What this actually means is best understood from the Secretary’s various speeches available on the Defence website including especially *People Power* from November 2000. Defence also has

five strategic themes for personnel: attracting, recruiting, developing, retaining and transitioning people. These are expanded on in the PBS p.105.

In February 2001 the Defence People Committee was created. The role of the Defence People Committee is to ensure a more focused and holistic approach is taken on people issues within Defence. The Council is chaired by the Deputy Secretary Corporate Services and Infrastructure Group and includes the Vice Chief of the Defence Force, the deputy Services Chiefs and the Head of Defence Personnel Executive as members.

The budget includes $100 million of personnel expenditure built into the funding base for 2002–03 including $68 million to improve accommodation for single members and upgrade existing Defence housing, $14 million on health initiatives and $7.5 million to assist ADF members to balance work and family responsibilities.

The Defence People Plan

The Defence People Plan [PBS p.103] is intended to provide vision and strategic guidance for people policies that will underpin Defence's operational effectiveness and form the basis for Defence personnel strategic planning and budgeting. This Plan was foreshadowed in the 2001–02 Portfolio Budget Statements for release in late 2001; completion is now planned for mid 2002.

A related initiative in the 2001–02 Portfolio Budget Statements is the development of a Workforce Plan to link total workforce requirements across Defence to capability. To achieve, this Defence is undertaking a Strategic Workforce Planning Review. This Review is investigating the likelihood of workforce demand–supply gaps over the medium and long term, and recommending strategies to deal with them.

People matter priorities in 2002–03

The PBS lists 20 priorities for 2002–03, plus seven carried over from 2001–02 [PBS p.104]. The Workforce Plan is one carry over, while initiatives relating to remuneration, personnel policies and military compensation are among the priorities for 2002–03. We explore several of these issues below.

Review of Australian Defence Force remuneration

Competitive remuneration is fundamental to the 'results through people' approach. In 2001 an external review was undertaken resulting in a report, *Review of ADF Remuneration 2001* which is available on the Defence web site. The review found that in general ADF personnel are not disadvantaged in respect of their overall remuneration and financial conditions of service when compared with the wider community.[9] A principal recommendation was that the Chief of the Defence Force and the Service Chiefs be fully accountable for strategic people capability issues in the ADF and their Services.[10]

---

[9] Review of ADF Remuneration, Barry Nunn, Peter Kennedy and Les Cupper, Commonwealth of Australia 2001, p.60

[10] Nunn et al, Summary of recommendations, pp.145–151

The CDF and the Service Chiefs were directed by the Government to consult current and former ADF members on the recommendations. They are to report by the end of May 2002. Implementation of the agreed recommendations is a goal of the White Paper implementation process.

The review mentioned computerised models developed to help Defence personnel value their remuneration package and compare their salary and allowances with earnings in the community.[11]

Between December 1992 and May 2002, general salary and allowance increases have delivered essentially identical outcomes for the ADF and Defence civilians of about 38% compounded growth. The recent civilian Agreement positions Defence civilian staff in the top quartile of what APS employees receive, measured against thirteen agencies covering most of the Service. The next ADF Arrangement, due later this year, is likely to deliver a similar percentage outcome. Many ADF Allowances are increased both under the Arrangement and also by separate reviews additional to the ADF Arrangement. Some of these allowances have had significant increases, as detailed in the *Review of ADF Remuneration 2001*.

Most Reserve members on part-time duty are paid daily rates of 85% of the Permanent rate for members. Disability allowances are paid at Permanent rates, and total pay is tax exempt. Service Allowance is not paid.[12] The Remuneration Review recommended these arrangements be brought more into line with Permanent Force remuneration.[13]

Is money the whole story?

In 1999, Defence commissioned a Defence Personnel Environment Scan. That project concluded that on the basis of the current environment, or without changes to personnel policy and practice, it is unlikely that the ADF will meet the strength required by the White Paper.[14] The Environment Scan also concluded that employees often look beyond remuneration to such things as personal and professional development, and flexible working hours, in deciding upon a place to work.[15]

For this reason, the Environment Scan recommended that Defence will need to make changes in line with the identified societal, workplace, lifestyle, globalisation and technological trends to become an employer of choice.[16]

Permanent force recruitment and retention

Since 1997–98 there have been difficulties in meeting recruitment targets, with implications for achieving the White Paper target of around 54 000. Table 2.5.5 shows recruitment targets and outcomes, and separations, since 1997–98.

---

[11] www.defence.gov.au/dpe, Resources, Comparative Employment Value Adjustable Model

[12] Nunn et al, pp.112–113

[13] Nunn et al, p.118

[14] Defence Personnel Environment Scan 2020, p.117

[15] Sources cited in Defence Personnel Environment Scan 2020, p.21, cross referenced to p.119

[16] Defence Personnel Environment Scan 2020, p.117

Table 2.5.5 Enlistments and separations

	Recruitment target	Enlistments*	Applicants enlisted	Separations
1997–98	3519	4083	3409	5937
1998–99	3858	3705	3087	6645
1999–2000	5327	4947	4043	6467
2000–01	6562	5925	5131	6967

*Annual Report Table: Enlistments including inter- and intra-Service transfers.
**Annual Report Table: Permanent Recruiting Activity.

The historical data needs to be treated with some caution because the period coincides with the Defence Reform Program and the Commercial Support Program that deliberately sought to reduce the size of the ADF. Even now, it is unclear from the available information how many separations are employee or management initiated.

Since the 2000–01 Annual Report there has been an improvement in both recruitment and retention. Defence reported in April 2002 that August 2001 and March 2002 personnel numbers in Navy increased by 2.7%, Army by 1.5% and Air Force by 1.2%. Separation rates have dropped from around 13.4% in May 2001 to between 11.5% and 11.9%. The average for large Australian organisations is around 16%.

There is a clear link between the state of the economy and the separation rate, with separations up as the economy improves, and down as growth slows and unemployment increases (see the *Review of ADF Remuneration 2000*). It may be that as long as the economy continues to perform well recruitment will be difficult as it is for other western volunteer armed forces.

SECTION 3 – TRENDS AND PRESSURES

MEETING EXPECTATIONS? THE OBJECTIVES OF THE WHITE PAPER FINANCIAL PROGRAM AND DIRECTIONS IN THE 2002-03 BUDGET

It is because of the rare connection of a reforming policy document and a volatile security environment that the 2002-03 Defence budget is unique in recent Australian peacetime history. It is required to fund both an ambitious development program and an unexpectedly high level of defence operations. The issue is whether it can meet sufficient of the unusually large demands in both areas to not overly compromise performance levels in either.

Background

A major priority of the 2002-2003 budget is to continue the Government's response to what, by 2000, had come close to becoming a defence financial crisis. During 1999-2000 the Defence budget had to be significantly restructured, with $380 million transferred from the capital allocation to pay for increasing costs in other areas, particularly Service personnel. None of this was due to the INTERFET deployment in East Timor, for which special additional funding of $740 million was provided. Ultimately, not all of this was required, allowing $267 million to be returned to a capital budget that, nevertheless, was reduced by a further $377 million.[1]

In mid-1999 there were several reports of over-commitment in the military equipment program. In February 2000 the Secretary of the Department, Allan Hawke, made his notable comments about the "parlous" financial state of Defence citing, among one of the factors, an over-commitment to capital equipment programs.[2] A freeze on new projects, that was to combine with a desire to await the outcome of the White Paper, was initiated.

The Military Equipment Crisis

This hiatus in the capital equipment program was neither surprising nor isolated. Over the previous decade the amounts allocated for specialised military equipment had not kept pace with the value of new projects that were approved. By 1999-2000, the value of these latter had reached $46 billion of which, at the time, $20 billion remain to be spent. Ten years earlier, the value of approved equipment programs had been 11.8 times greater than the annual spending. By 1999-00 that ratio had reached 18.7 while that of the unspent component to the annual rate of spending was 7.8.

---

[1] Department of Defence, *Defence Annual Report 1999-2000*, Defence Publishing Service, Canberra, October 2000, p.32.

[2] Allan Hawke, Secretary Department of Defence, "Money Matters", Royal United Services Institute of Victoria for Defence Studies, Melbourne, 27 April 2000, p.8.

Together with another $5 billion in projects approved in the May 1999 Budget (but not then under contract) the level of commitment would have taken over 10 years to discharge at the then current levels of allocation for major capital equipment.

This fact had dangerous ramifications for the long-term viability of Australia's defence capability. Most of the major equipment systems of the ADF were becoming obsolete and would have to be replaced in a period from about 2007 till around 2020. These systems represented most of the core capabilities of the ADF. There was a significant risk that some equipments would cease to be operationally viable before they could be replaced and that the ADF would no longer be able to perform some military roles.

Underlying Pressures

Over-ambitious approval of equipment programs was not by itself the cause of these financial problems. Rather, it was a failure to see that changes in the financial environment (particularly the failure of efficiency programs to deliver savings for equipment programs) would limit the capacity to support capital expenditures.

One of these changes was a consequence of the end of the Cold War. As with most Western countries (but not to the same extent as many) the real value of the defence budget fell by 2.3 per cent during the 1990s, representing a reduction of $230 million at then current prices by 1997. While this fall in value was measured against cost pressures in the general economy (by the Departement of Finance through the non-farm GDP deflator), capability developments in a changing regional strategic environment created pressures for matching cost growth despite the improvement in global security.

Yet, in another sense, the trends go further back. Since the end of the Vietnam conflict there had been an ongoing struggle with the financial implications of the policy of defence self reliance. By 1990 it had become apparent that the funding demands of the force structure elements required for this policy could not be provided within government fiscal settings. Rather than supporting increased defence funding these had, since 1987, sought real reductions in defence expenditure.

The response was the Force Structure Review of 1991. This was a systematic attempt to improve the returns on defence expenditure by ongoing programs of management efficiency, commercialisation of functions and personnel reductions. The approach was extended and intensified in 1997 with the Defence Reform Program. When closed by mid-2000, the latter had realized recurrent annual savings of $644 million and one-off savings of $77 million.[3] This was well below the expectation of $770 million in recurrent savings and $500m in one-off savings to be reached by 2001.

The efficiency programs have allowed the diversion of a greater proportion of ADF personnel into combat and combat related duties; it is claimed by almost 50 per cent

[3] Australian National Audit Office, *Defence Reform Program Management and Outcomes*, Audit Report No.16 2001-2002, 5 October 2001, p.40ff.

since 1996 to 62 per cent of the ADF (see Section 2.5). Regardless, the efficiency programs did not solve the defence financial crisis.

Unforeseen Traps In Operating Expenses

It was once an expectation that operating costs were a major independent variable, an area from which funds could be diverted to meet higher priorities when budgets were tight. However, by the end of the decade the operating costs component was beginning to suffer from underlying cost pressures.

Throughout the 1990s ADF operations were more intense than for several decades. However, when Government approved the deployment of the ADF (usually at United Nations' request) the cost of operations was funded by additional appropriations, partially offset by eventual payment from the U N. Consequently, the pressure on operating costs did not come from increased operational deployments

Deficiencies in the capability development process had meant that the Net Personnel and Operating Costs (NPOC) for new equipment had not been identified properly, nor planned for throughout much of the 1990s. Consistently, these new capabilities cost more to operate than had been allowed and NPOC could not be offset against savings from retiring old equipment. Toward the end of the decade new capabilities were planned toward which few resources remained to fund the NPOC. By 1999 these costs had grown to the extent that an estimated additional $760 million was required to pay for them in the period up to 2010.

The most significant indication that operating costs would become an area of increasing demand was, however, gained from assessing the implications of the INTERFET deployment to the East Timor. The assumptions that underpinned the training and preparedness of the ADF for decades were overturned by the Timor deployment. It became apparent that there were credible circumstances in which Australia could not solely determine the nature of ADF deployments, could not rule out the possibility of serious military action and might have to sustain the operation beyond the limits possible with the ADF as it was structured before Timor.

The costs of generating forces before deployment to East Timor indicated the financial consequences of maintaining forces at higher levels of readiness. A third of the cost of the first 18 months of operations in East Timor, some $630 million out of $2 billion was required for preparing forces before deployment and sustaining the length of the deployment.

The Intractable Factor: The Rising Costs of Personnel

Over the 1990s the average per capita cost of defence personnel increased at a nominal rate of 4.9 per cent per annum. At the same time, the reform programs resulted in a significant reduction of both Service and civilian defence personnel numbers (see "personnel", above). Yet the proportion of defence expenditure allocated to personnel costs increased throughout the decade from around 36 per cent to 41 per cent. That they were contained at this level was due in part to continuing recruitment

and retention shortfalls but principally to the decisions to reduce numbers over the last decade.

It was particularly damaging that for much of this time policy was that Commonwealth agencies should meet rising employee costs largely from within their own budgets, annual supplementation usually being only about 1.5%. This encouraged out-sourcing of functions, transferring payments to operating costs but at the same time encouraging "productivity based" pay increases. These factors defeated the objectives of the management efficiency programs.

By 1995-96, 75 per cent of the savings made through the Force Structure Review had been re-allocated to personnel costs. Most of the efficiencies sought through the Defence Reform Program were predicated on reducing the number of service personnel to 42,700. When this was reversed and the Government agreed to an ADF of 50,000, they were lost but with the promise that the combat component of the ADF would increase. The situation was worsened by the need to increase personnel numbers to support the deployment in East Timor. By 2003-04, the additional costs of personnel increases and enhanced remuneration will amount to $649 million,[4] more than the current levels of savings from the DRP.

By 2000 it was apparent that the continuation of these trends would erode the capabilities of the ADF. The rate of drain from other areas of the budget was such that, within about 10 years, it would have been almost impossible to sustain useful capital expenditures.

Financial Planning in the White Paper

The Government's response was to undertake a White Paper commencing with a comprehensive public consultation. The final White Paper was developed using a detailed model of Defence costs including the acquisition and operating costs of new equipment and the underlying costs of existing capabilities. It was through this process that the Government formulated their funded Defence Capability Plan.

The result was an average annual increase in defence funding of three per cent in real terms. This was to be delivered in two initial bulk increases of $500 million each (in 2001-02 and in 2002-03) followed by increases over the remainder of the decade that would average 3 per cent per annum. As 3 per cent is slightly below the long-term growth rate of the Australian economy, these parameters should not see defence taking a greater share of national wealth by the end of the decade.

Specific issues were addressed within this funding envelope:

Capital Investment Funding was provided to increase capital expenditures for a Defence Capability Plan based on costed estimates of specific types of military capability. The first DCP, released in June 2001, foreshadowed expenditure of some

[4] op. cit., p. 48.

$47 billion[5] (because it covered protects extending beyond the 10 year framework of the White Paper). The problem of Net Personnel and Operating Costs was dealt with by specific reservations against approved programs. There was an additional allocation of $7.5 billion over the decade to fund the backlog of meeting those costs for existing capabilities.

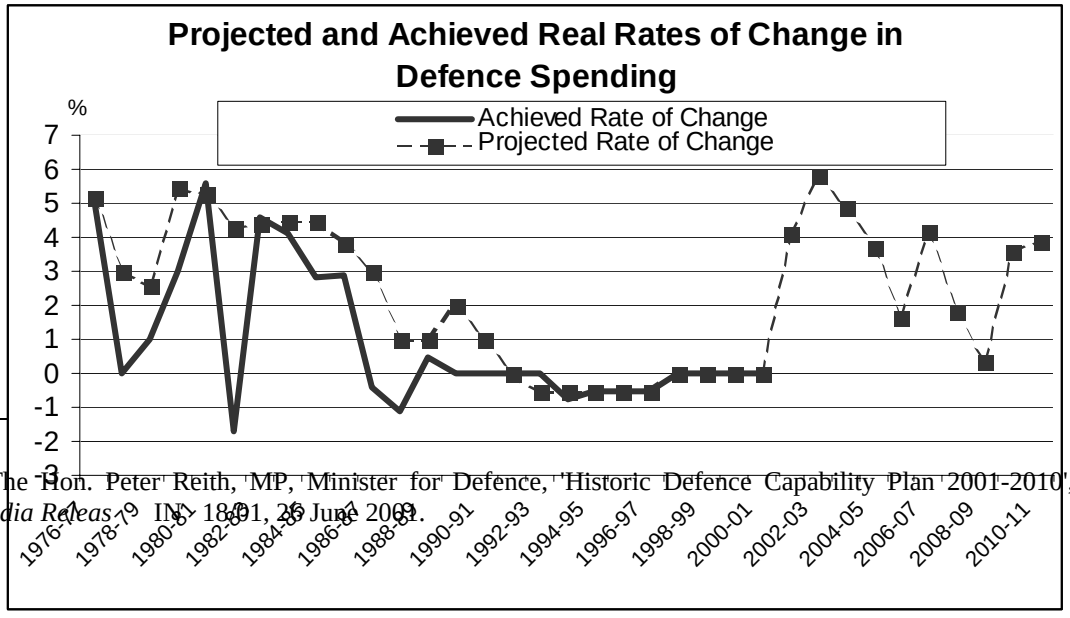
Personnel Costs Calculation of the package included an allowance of 2 per cent real growth to cover increasing personnel costs. When compared against the historical rate of real cost growth (see Section 2.5) this seems more than sufficient to sustain likely rates of normal increase in average employee costs.

Operating Costs In general the White Paper assumed that operating costs would not increase in real terms, due to a combination of expected efficiency gains and lower operating costs for new equipment. However, following the East Timor experience, it recognised preparedness of the ADF as a major policy issue. Maintenance of six Army battalions at historically high levels of readiness (between 30 and 90 days notice to move) was authorised. To sustain this decision, the costs that had been required to develop forces for deployment in East Timor will be retained once that operation ceases. This amounts to $415 million per annum from 2004-05 onwards.

These decisions represented the most ambitious sustained funding increases for Defence since the Vietnam conflict. At then existing price levels they would see the annual cash budget increase from $12.2 billion to $16 billion and an additional $23.5 billion spent over the course of the decade.

The figure below illustrates the significant extent to which the White Paper's objectives, as expressed in its initial figures, sought to change the funding patterns of the previous quarter of a century. Historically, the real change in the defence budget from year to year has only matched the level approved in the formulation of the budget when the rate of change has been negative or very low (over the years from 1994-95 to 2000-01). The rates of change projected for the White Paper are higher than any approved since the mid-1980s and there have been few years over the last quarter of a century where they have been met.

Figure1: Proposal and Achievement in Defence Financial Planning



[5] The Hon. Peter Reith, MP, Minister for Defence, 'Historic Defence Capability Plan 2001-2010', *Media Release* IN 18/01, 26 June 2001.

Source: Senate Foreign Affairs, Defence and Trade Legislation Committee, 'Department of Defence, Answers to Questions on Notice', Additional Estimates 2000-01, 21 February 2001. These calculations and those for the White Paper, exclude capital use charge and equivalent funding.

Correcting the Situation: The 2002-03 Budget and White Paper Objectives

Initial Revisions of White Paper Parameters

There have been a number of significant changes in the financial parameters on which the White Paper was calculated. The first was in the value of the Australian dollar, which fell to levels around 20 per cent lower than those used for the White Paper. The next to occur was the unexpectedly high levels of military deployments, with the naval operations to deter boat people and Australia's contribution to the campaign against terrorism.

In October 2001 the Defence Annual Report 2000-01 presented a revised outline of the financial parameters. The details of this were subsequently published in the Government's election platform.[6] Allowance for unfavourable exchange rate movements added $1.9 billion, whilst recalculation of the pre White Paper base added another $7 billion to the ten year program. The White Paper initiatives increased by over $4 billion to total $27.6 billion over the ten years to 2010-11, and the whole program was now expected to deliver an additional $32.4 billion by 2011.[7]

Adjustment to 2002-03 Prices

The composition of the defence budget changed markedly in the second half of 2001-02. The Additional Estimates recorded the first extent of price increases and the initial net costs of increased operational activities. The cost of defence increased by more than $1 billion. Most of this ($744 million) was for exchange rate or other cost increases incurred during 2001-02 or the previous year. In 2002-03 a further $351 million was required for exchange-rate variations, although other price parameters decline by $55.2 million.

The revision of White Paper parameters in October 2001 had anticipated that exchange-rate variations would add $1.9 billion to costs. Already, over the first two years of implementation $690 million has been added, more than three times that anticipated.

The Additional Estimates appropriated $320 million for ADF operations against terrorism and $19 million to intercept boat people. Of these, $140 million and $6 million respectively were for capital items. Spending on these operations in 2002-03

---

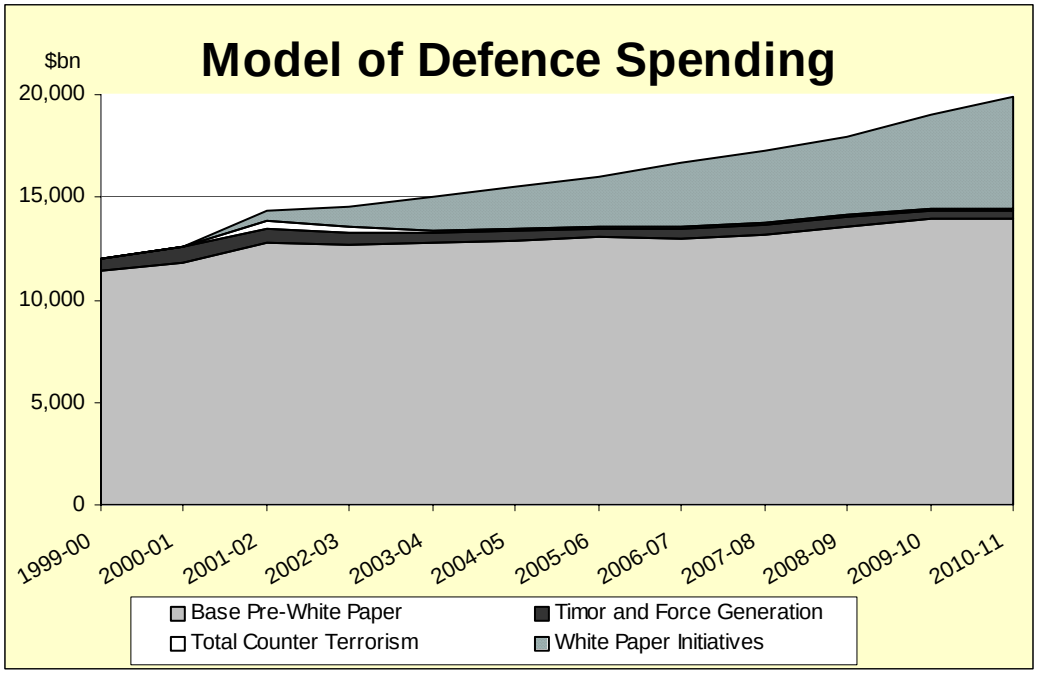
[6] Liberal Party of Australia, *Putting Australia's Interests First*, 'Strengthening Australia's Defences', Melbourne, October 2001, p.22]

[7] Department of Defence, *Defence Annual Report 2000-2001*, Defence Publishing Service, Canberra, October 2000, p.34.

is expected to be $199 million ($169 million as the cost of operations, PBS, p.30) and $22.3 million, respectively.

Because of this cost growth the initial two annual phases of the White Paper's funding increases were upgraded to $512 6 and to $1,039 million.[8] A model of White Paper funding parameters, revised to accommodate these developments, is shown below. Unfortunately, this model has had to rely on a number of different publicly available sources. It modifies the outline of White Paper parameters presented in the Coalition policy document with entries for the years 2001-02 to 2005-06 in the PBS Statement of Cash Flows (p.62).

Figure 2: White Paper Parameters Revised to 2002-03 Prices



Source: Assumptions based on data in 'Putting Australia First', p.23 and Portfolio Budget Statements 2001-02, p.62. It should be noted that these figures are net of GST refund. In the absence of any disaggregation, GST refund is deducted from operating expenses. Total cash expenditure for 2002-03 is $100 million less than net resources available to defence. This is allocated to cash in the bank at the end of 2002-03. Allowance for changes in the value of the dollar are incorporated in the base funding.

Operating Costs

The model is dominated by a steep decline in operating costs over the next few years. These are calculated to be $271 million less this financial year than in 2001-02 and to remain at this level until the end of the Forward Estimates period.

Operating costs increase steadily in the latter part of the decade. This is probably more the financial consequence of policy than a prophecy of levels of operational activity. Developments such as better prediction of through-life operational support of

[8] Senator the Hon. Robert Hill, Minister for Defence, "Budget 2002- 03 Defence funding increases to $14.3 billion " *Media Release* MIN 202/ 02, 14 May 2002.

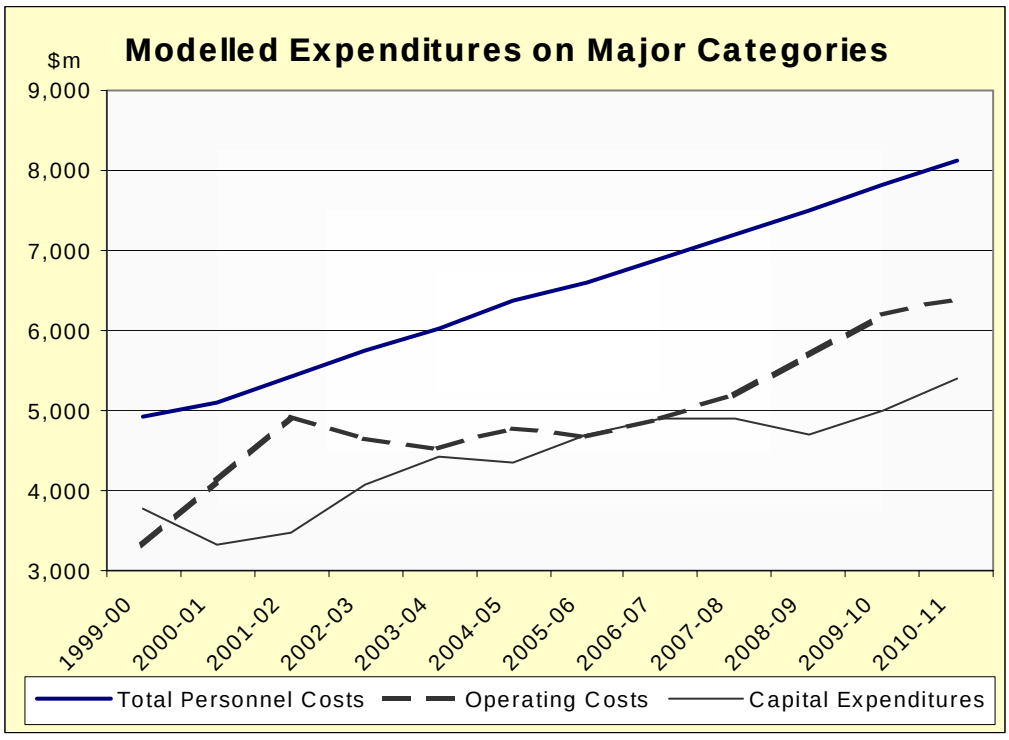
equipment and commercialisation of functions serve to better recognise operating costs, or to divert costs from other categories of expenditure, particularly personnel.

In general, operating costs throughout the decade reflects the financial consequences of the policy judgment that ADF units should be maintained at a higher state of readiness. The decision to continue the force generation and sustainment costs of the Timor deployment will add over $3 billion during the second half of the decade.

Capital Spending

When the White Paper was first released, much attention focused on the Capability Development Program and, within that, more particularly on the capital equipment program. In the contrast, the following two Figures (3.3 & 3.4) demonstrate that, at least in this model, capital expenditure is the least of the three broad categories of defence costs.

Figure 3.3:Levels of Spending on Personnel, Operating and Capital Costs

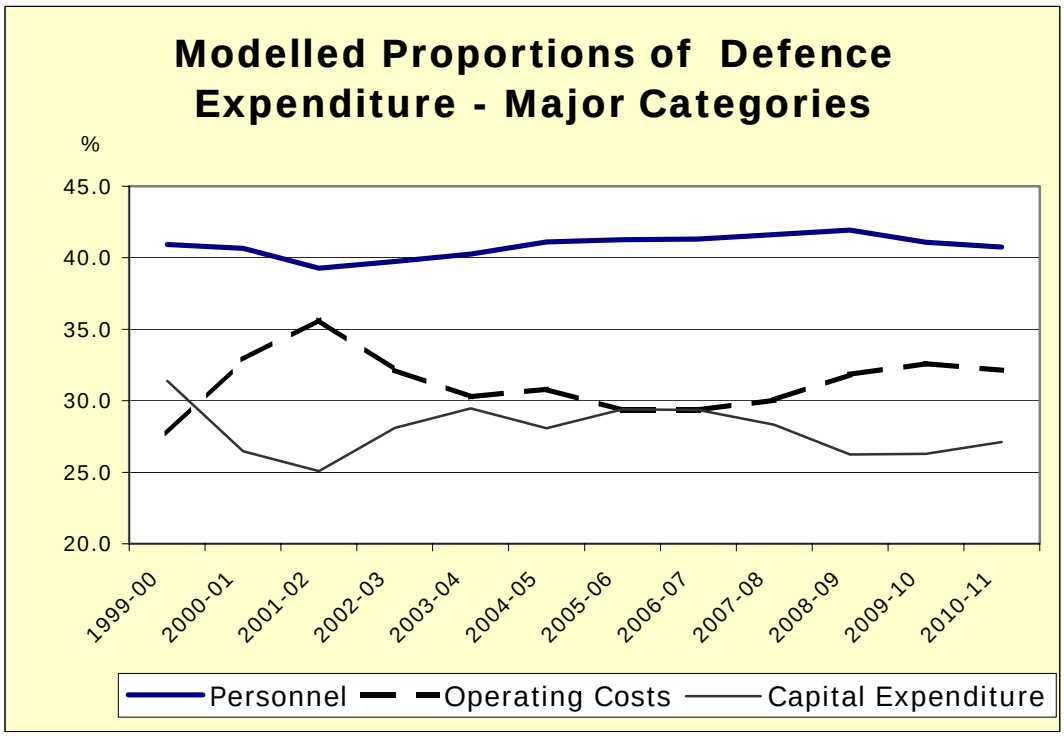


The call on funding for capital is variable, reflecting the nature of equipment program delivery. This suggests that it may be vulnerable to policy-induced funding reductions such as a have, indeed, occurred in 2002-03. However, despite its relative position, this capital program appears well funded, at a total of $45.9 billion for the decade, well within the parameters for overcoming the problems posed by block obsolescence of ADF equipment. The projected spending on the personnel and operating categories is $67.7 and $51.9 billion, respectively.

Personnel Costs

As in the previous decade, personnel costs continue to be the dominating area of the defence budget. On assumptions based on the published data they become increasingly so towards the end of the decade. However, there remained significant management difficulties, particularly with ADF personnel, with resultant problems in maintaining numbers.

Figure 3.4: Proportional Spending on Personnel, Operating and Capital Costs



Critical Vulnerabilities

At first glance, the funding projections for the next decade appears ambitious. The size of the program has grown considerably because of the external factors that have developed since the White Paper was tabled. Cost factors driven by devaluation, inflation, and the Government's approval of historically high ADF operations during peacetime have boosted sources of underlying cost increase.

This situation may not persist. It is widely held that the Australian $ is undervalued against the US$ and a move of the exchange rate in Australian's favour might be sustained over the decade.

It seems unlikely that the current high levels of operational activity will persist throughout the decade. At more normal activity levels a reduction of around $500 million from peak expenditure levels could be expected. Alternatively, the electorate probably would continue to support the spending levels should the strategic situation be patently such as to demand ADF deployment.

Nonetheless, the historically high levels of defence spending projected for the next decade may well attract the attention of governments seeking funding for alternative programs. Were this to happen, key areas of vulnerability within the budget structure would increase in importance, as any problem that may arise therein would be magnified through the reduction of broader budget parameters.

Personnel Costs

Personnel costs continue to be a major cost driver. As explained above, previous growth rates in this component (at an average annual nominal rate of increase of 4.9 per cent) reduced flexibility in the defence budget and necessitated the extent of the financial measures in the White Paper. These give an allowance of 2 per cent per annum real increase in personnel costs.

It might be assumed that moderation in employee cost growth in the general economy towards the end of the 1990s would translate into reduced defence personnel costs in the current decade. However, as noted (in Section 2.5) wages settlements for defence personnel have tended to be above community outcomes. In addition, persistent problems of recruitment and retention sustain the temptation to use higher levels of remuneration as a simple solution.

The projected personnel costs in the budget rise steadily. The initial increase is 6.1 per cent against variations of less than one and 1.8 per cent for ADF and civilian employees, respectively. But after taking account of inflation and the 2% per-capita personnel cost growth factor this is not alarming. Also, employee costs are expected to be $186 million less than originally budgeted for this financial year, which contrasts with a pattern of overspending against employees in the past.

To date, the full impact of personnel costs on the defence budget has been ameliorated by the failure of the ADF to reach its permanent strength allocations. During 2000-01 average ADF strength was 640 below target, saving $52 million. Reaching the authorised ADF strength of 53,500 will cost an additional $210 million at 2000-2001 per capita wage rates, with on-costs for superannuation (more than $50 million), housing, medical costs and others. Fortunately, the white paper has a provision for growth in personnel numbers from 2004-05 onwards that should cover this.

Costs will increase further, if the initiatives in this budget to establish a second Tactical Assault Group and an Incident Response Regiment involve a growth to the size of the Army. It remains unclear if additional personnel, or personnel funding, was included in these two budget measures.

As noted in Section 2.5, there is an apparent discrepancy between approved total planning strengths and personnel numbers that would be employed if current staffing deficiencies were filled to the levels notified by the Services. These discrepancies probably will be factored out by budget planning processes. However, they do indicate a potential area of difficulty should strategic circumstances require many such shortfalls to be filled. There is some scope in the White Paper parameters to absorb such a problem. Nevertheless, this category has been the main source of cost pressure in the Defence budget and it could do so again if not tightly managed.

Operating Costs

The White Paper noted that operating costs pressures had increased but expected that they could be offset by further efficiencies and lower operating costs for new military systems. In practice, the latter have seldom eventuated, leading to the problem of Net Personnel and Operating Costs mentioned above. This is a problem that continues, with the 2002-03 PBS indicating that "higher than expected costs of operating new platforms" for the RAAF were having a significant impact and "constraining the planned flying rate of effort"[9]. An initiative of the White Paper was that through-life support costs were to be calculated as part of the capability development process involving new equipment.

There is, therefore, no allowance in the financial planning for the next decade for a real increase in operating costs except for that allocated for new equipment being brought into service. However, if the white paper net operating cost estimates prove inadequate (as preliminary estimates of costs almost always do) then cost pressures will arise.

The exception is for ADF operations, such as those currently underway, specifically approved and given special funding by government. In this sense, a component of operating costs remain a policy variable. In any case, the net additional cost of deployments is supplemented so that no pressure is placed on the budget. Governments have some capacity (subject to countervailing pressures) to restrain costs by not approving ADF deployments or by controlling their nature.

There are circumstances, however, where operating cost increases may be less controllable. One of these is the increasing size of this area of spending as it absorbs a greater proportion of the budget. Spending has been transferred, in effect, from personnel and capital components by the commercialisation of functions. Once incorporated in operating costs by way of a contractual agreement, costs ordinarily are not susceptible to further management until renegotiation.

The original phases of many commercialisation programs were, in effect, underwritten by absorption into the contractor's workforce of the trained Service personnel, now redundant, who had been trained at public expense. For this reason, there are concerns that the re-negotiation of many commercialised agreements will

---

[9] Department of Defence, Portfolio Budget Statements 2002- 03, Defence Portfolio, Canberra May 2002, p 48.

begin a period of operating cost increases as former Service personnel begin to be replaced by others trained at contractor expense.

A more tangible problem for the defence budget lies in the increasing cost of maintaining military systems as they age. Considerable work has been done on this issue as declining levels of procurement in the post Cold War environment have seen equipment stay in service for extended periods. Analysis by the US Navy's Naval Aviation Maintenance Office over 10 years has concluded that aircraft maintenance costs increase at an average of about four per cent per annum.[10]

The RAAF was subject to these pressures over the second half of the 1990s. Over these years the cost of logistics support for the F/A 18 Hornet increased by 87 percent and almost doubled in nominal terms to $122 million.[11] The problem is worsening, with the 2002-03 PBS reporting that the increasing age of all but two of the RAAF's aircraft is leading to a growth in levels of support costs.[12] Part of this problem is difficult to quantify until the long term impact of the failure of F111 wings under stress testing can be assessed. Assuming that it is possible to continue to operate these aircraft as planned their ongoing maintenance is likely to become increasingly expensive.

During 2000-01, the RAN had significant maintenance problems with several classes of vessel. Its major surface combatant force was so severely affected that it lost the equivalent of 1.4 ships, whilst overall sea day shortfalls amounted to the equivalent of 2 ships being unavailable. The aging patrol boat fleet missed 6 percent of its coastal surveillance duties.[13]

Whilst individual cost increments are comparatively minor, involving additional expenditure of tens rather than hundreds of millions, the age of much of the ADF's equipment suggests that increasing costs in this area is a probability over the next decade. Further, the impact of comparatively modest increases could culminate in a difficult problem, given the cost and time factors involved.

As detailed in Section 2.2, the four areas mentioned above have a cumulative expenditure of over $6 billion, although it must be noted that this includes all components of expenditure. Furthermore, in most areas where maintenance costs are likely to become significant, new equipment will not be in operation for 10 years or so. Although the Defence Capability Plan is seen as a solution to this problem, as it will deliver much new equipment, with supposedly reduced support costs, it will in most cases be irrelevant to managing the issue of rising maintenance costs.

---

[10] The Auditor General, *Tactical Fighter Operations* Audit Report No.40 1999-2000, Australian National Audit Office, Canberra, April 2000, p.70.

[11] ibid., pp.68-69.

[12] Senator the Hon. Robert Hill, Minister for Defence, "Budget 2002- 03 Defence funding increases to $14.3 billion " 14 May 2002.

[13] Department of Defence, *Defence Annual Report 2000-2001*, p.98ff.

The Capital Program

The White Paper was intended to give more certainty to the development of ADF capability than had existed in the years immediately preceding it, especially in cases where this involved procuring specialist military equipment. As mentioned earlier, commitment to new programs at a level that could not be supported by the defence budget produced the freeze on capital equipment programs at the beginning of the Century.

The increased capital spending of recent years, and particularly 2001-02, has gone some way towards reducing the overhang of the commitments of the late 1990s. Indeed, the ratio of the value of total equipment programs yet to be paid for to annual spending has declined to 5.5. The roughly $6.5 million of additional projects approved this year will only increase the about 7. (This ratio is an important metric that is difficult to estimate from public data.) Given the size of the capital program for the next decade there appears every prospect that a sustained and balanced replacement of key ADF equipment assets can be achieved.

Unfortunately, the risk that the White Paper's equipment program will be compromised by poor force development and procurement practices continues to be significant. At the time that the White Paper was tabled, there were 15 major capital equipment programs that had run over budget significantly in the preceding five years. At the time, the real cost increase for all these programs was $568 million.[14] Poor management of cost and schedule are acknowledged as major contributors to past difficulties in financing specialist military equipment.

There is a second problem that is nominally covered but which may pose management difficulties given the realities of annual budget politics. This is the price increase caused by unfavourable movements in the exchange rate. During the course of 2001-02 the approved cost of the 20 major equipment programs run by Defence increased by $770 million. Most of this price increase was for four new programs particularly exposed to the US dollar. They increased by $554 million, more than 10 per cent in less than a year.

Table 3.1:New Military Equipment Procurement Programs

	Approved Project Cost May 2001$m	Approved Project Cost Feb 2002$m	Increase $m	Increase %
Aus LAV	591	616	25	4.2
F-18 Upgrade stg 2	1346	1524	78	13.2

[14] Senate Foreign Affairs, Defence and Trade Legislation Committee, "Answers to Questions on Notice, Department of Defence", *Additional Estimates 2000-01*, 21 February 2001, Question 6, pp. 55-57.

Penguin missiles	194	200	6	3.1
AEW&C aircraft	3110	3455	345	11.1
Totals	5241	5795	548	10.6

Source: *Portfolio Budget Statements 2001-02, Defence Portfolio*, pp.81-82 and *Portfolio Additional Estimates Statements 2001-02, Defence Portfolio,* p.60

These increases appear primarily due to exchange rate fluctuations. This is not an internal Defence budgeting issue as the White Paper funding base was assured against devaluation. However, significant adjustments required making it more difficult of the Government to afford. It can be assumed that the most of the $609 million in exchange rates costs over 2001-02 and 2002-03 effect major equipment programs.

Consequently, it also can be assumed that about half of the $600 million increase in equipment spending in 2002-03 simply compensates for price increases. This will, in effect, compound the consequences of the deferral of $150 million in equipment programs and the transfer of $20.9 million (from equipment to inventory to provide munitions) should exchange driven price increases persist. This is because the "catch-up" required becomes a competing cost where budget parameters force the government to choose between the agreed schedules or further "reprogramming" until another year.

On the other hand, there appears to be some difficulty in increasing expenditure on capital projects in line with White Paper projections. The capital budget for 2001-02 increased by $176 million (all in the category of specialist military equipment) between the budget and Additional Estimates. However, most of the increase was to cover the costs of equipment for the deployments to deter boat people and that to support the United States in Afghanistan ($146 million). Spending on the top 20 equipment programs was $256 million lower than the budget estimates, and likely to be only $61 million higher than in 2000-01, because of transfers of funds forward to that year for the AEW&C program. It is difficult to be definitive about the major capital equipment program because of the lack of public information

The risk for the management of the defence capital program is that these difficulties might compound with changes to broader financial parameters, caused by cost increases in other areas of the budget or by policy decision. There will always be need to vary aspects of the capital program to accommodate real-world changes in program performance. The danger in the past has been that, in changing budget circumstances, such variations are often seen as a solution to broader funding problems and thereby have become permanent. It is from this perspective that the Defence capital program appears to be still the most vulnerable of the three major categories of defence spending.

Conclusion

The 2002-03 Defence budget does not appear to have been completely successful in balancing the conflicting priorities of simultaneously funding significant operational deployments and a major capability development program. Expenditure on the former has been slowed during 2002-03 with $150 million of equipment to meet White Paper

initiatives deferred for a year and $20 million cut meet a shortfall in it munitions war stocks.

The diversion of $150 million for white paper initiatives to the following financial year is probably not significant in the context of a well-funded equipment program. Nonetheless, it is a reminder that the objectives of the White Paper can be subjected to other policy or political imperatives. The diversion of funding in the capital program to supplement operating costs is a reminder that even areas of apparently high policy priority may be restructured in response to recent developments.

On balance, however, these warnings do not appear to indicate trends sufficiently large to compromise the objectives of the White Paper. Funding in each of the areas of defence costs appears sufficient to meet policy objectives. Careful management of issues as they arise, rather than additional funding, appears to be the factor most likely to determine the implementation of the White Paper.

Values for White Paper Financial Model

Table 1: Initial White Paper Funding – December 2000

Financial Year	Pre-White Paper Funding	Retention of Force Generation	White Paper Initiatives	Total Additional Funding	Total Revised Funding
	$m	$m	$m	$m	$m
2000-01	12,204				12,204
2001-02	12,221		500	500	12,721
2002-03	12,454		1,000	1,000	13,454
2003-04	12,745		1,375	1,375	14,120
2004-05	12,355	415	1,870	2285	14,640
2005-06	12,355	415	2,108	2,523	14,878
2006-07	12,355	415	2,725	3,140	15.495
2007-08	12,355	415	3,005	3,420	15,775
2008-09	12,355	415	3,063	3,478	15,833
2009-10	12,355	415	3,625	4,040	16,395
2010-11	12,355	415	4,255	4,670	17,025
TOTAL	136,109	2,905	23,526	26,431	162,540

Source: Senate Foreign Affairs, Defence and Trade Legislation Committee, 'Department of Defence, Answers to Questions on Notice', *Additional Estimates 2000-01*, 21 February 2001. These calculations and those for the White Paper, exclude capital use charge and equivalent funding.

Table 2: Updated White Paper Parameters - October 2001

Financial Year	Pre-White Paper Funding	Retention of Force Generation	Price and Exchange Rate Variations	White Paper Initiatives	Total Revised Funding
	$m	$m	$m	$m	$m
2001-02	12.3		0.10	0.5	12.9
2002-03	12.5		0.12	1.0	13.6
2003-04	12.8		0.15	1.5	14.5
2004-05	12.4	0.42	0.17	2.0	15.0
2005-06	12.7	0.42	0.19	2.4	15.7
2006-07	13.0	0.42	0.21	3.1	16.7
2007-08	13.3	0.42	0.22	3.5	17.4
2008-09	13.6	0.42	0.23	3.7	17.9
2009-10	14.0	0.42	0.25	4.5	19.2
2010-11	14.3	0.42	0.28	5.4	20.4
TOTALS	130.9	2.9	1.9	27.6	163.3

Source: Liberal Party of Australia, *Putting Australia's Interests First*, 'Strengthening Australia's Defences', p.22

Section 4 – Options for improved transparency

4.1 Introduction

This chapter draws on the analysis of the PBS given in this Budget Brief to propose options for improving the transparency of the Defence budget, and especially the PBS itself, in future years.

This is clearly an important issue. The White Paper outlined a new approach to Defence funding that it claimed would, among other things, provide an improved basis for accountability by Defence to Government and the public for the efficient and effective use of defence funds (Defence 2000, p.120). It expressed the principle that 'the public should have the information required to assess the efficiency and effectiveness of the use of defence funds'.

Our proposals are offered in that spirit respecting the limitations of official secrecy and commercial confidence.

4.2 Making the goal clear – Outcomes

A clear and content-rich statement of the Government's intended outcomes is the foundation of the whole outcomes and outputs framework. The framework cannot function unless the outcomes are expressed in terms which are clear enough to allow genuine assessment of the extent to which they are achieved, and of the extent to which outputs have contributed to their achievement.

In particular the PBS should be able to provide performance indicators that show the effectiveness of each output in delivering the outcomes.

The single, broad outcome set out in the PBS for Defence is too general and unspecific to provide an adequate foundation for the framework, and a basis for performance evaluation. *The Defence of Australia and its Interests* is not much more than a feel-good slogan; it is certainly no basis for a year-by-year evaluation of the success of the Defence organisation in doing what the Government wants.

The problem will not be fixed simply by redrafting the current formula into something different. No single sentence is going to capture adequately the complex and, in a way, rather subtle objectives that any Government has in the Defence function.

A better approach would be to recognise that the Government has several different outcomes that it seeks from the Defence function. These outcomes need to reflect the slightly paradoxical nature of a lot of Defence activity: the Government wants to maintain capable defence forces but does not want to use them. It would rather maintain an environment in which it does not need to use them. But when it does use them it wants them to be successful. This complex set of objectives would be better captured by a set of multiple outcomes. Other agencies have more than one outcome – for example the Department of Foreign Affairs and Trade has four.

Developing a set of more meaningful outcomes for Defence would take a little thought, but just to provide an example of what might be possible, we offer the following suggestions:

- Having armed forces ready for operations to meet Australia's needs.
- Maintenance of a favourable strategic environment.
- The successful conduct of military operations as directed by Government.

4.3 Making effectiveness clear – outputs

There are a number of options for improving the transparency of the outputs in the PBS. Table 4.1 shows how the level of information has declined in recent years.

Table 4.1: Output information contained in the PBS

Year	Price	Expenses detailed	Dates for completion of initiatives	Quantitative performance targets	Quantified price variations
1999–2000	One for each of 22 Outputs	Yes, for each of 22 Outputs	Yes	Yes for each of 22 Outputs	No
2000–01	One for each of 5 Outputs	Yes, for each of 5 Outputs	Yes	Yes, for each of 28 sub-outputs	Yes, for each of 5 Outputs
2001–02	One for each of 6 Outputs	No	Rare	No	Not quantified
2002–03	One for each of 6 Outputs	No	Rare	No	Partial, for each of 6 Outputs

Specific suggestions for improving the transparency of the outputs are:

Provide information down to the sub-output level

The aggregation of outputs under the current six headings obscures much of importance. The Outputs are simply too big to be useful. Defence maintains a structure of thirty plus sub-outputs that underlie the current six outputs. These sub-outputs constitute the basic building blocks of capability. This should be the level at which the PBS reports financial and performance information. This was done in 1999–2000 and 2000–01 to an extent; there seems no reason not to go back to providing that level of detail.

Provide more comprehensive financial information at the output and sub-output level

The prices for outputs are among the most important information provided in the PBS. But as we pointed out in Section 2.2, the data in the PBS is not informative. There are two main steps that could be taken to improve it.

First, it would be helpful for the PBS to provide a breakdown of the overall output or sub-output price into its components. A single aggregate price for an Output or even sub-output provides little information. A breakdown of expenditure on personnel, depreciation and other operating expenses would allow meaningful comparisons to be made from year to year, and between different types of capability.

Second, it would be helpful to have a clear explanation of the changes to the scope of outputs or sub-outputs from year to year. Inevitably there will be changes to the scope

of outputs or sub-outputs from time to time. The PBS should make clear any changes to the Outputs from year to year and quantify the impact of the changes on price.

Provide measurable performance targets

This year's PBS provides no quantified performance targets for the Defence outputs. Under the heading 'Planned Performance' for each output there are a few paragraphs that describe in very general terms one or two initiatives or priority tasks for the coming year. But there is no attempt to describe what the output as a whole is expected to deliver for the price being paid.

This is a serious deficiency. Without clear performance targets for the outputs, it is impossible to judge how well the organisation is performing, or even whether it is delivering what is required or not. Indeed there is little to tell us what Defence is meant to deliver for the money it gets.

Probably the key reason for this lack of performance targets is the breadth of the outputs themselves. It is impossible to measure the work of an organisation as complex as the Army, Navy or Airforce in a single set of targets. So the first step to providing workable performance targets for Defence is to focus them on the sub-output level. Sub-outputs embodying a single type of capability will be much easier to measure. Within these sub-outputs, there are two types of performance targets that could be provided.

First, targets for **activities** like flying-hours, steaming days and training activities could be given. The PBS in 2000–01 and 2001–02 provided such targets for some outputs. They do not provide a direct measure of the ADF's combat capability, but they do give a useful and quantifiable measure of performance.

For example, in 2000–01 Navy planned to undertake 4450 Seahawk helicopter flying hours in a year but only achieved 73% of that target. This indicated that Navy had not achieved some 1189 hours of training and exercises previously deemed necessary for the delivery of their output. Unless some more efficient way of delivering the output with less flying hours had been found, it was difficult to escape the conclusion that the output has not been delivered in full. In fact it transpired that there were problems in personnel shortages including insufficient instructors. So this activity information was a useful pointer to some real management problems and issues.

The other advantage of activity performance targets is that they relate directly to the accrual framework which itself focuses on activities rather than cash. Many of the expenses that appear in the Statement of Financial Performance will rise and fall with activity levels. Consequently, visibility of activity levels is 'the other half of the equation' in understanding the financial statements.

Second, the PBS could provide **preparedness** targets. Preparedness is a capability's readiness to undertake and sustain operations. It is perhaps the key deliverable for the Defence organisation.

In the PBS in previous years each of the outputs, except for intelligence and strategic policy, have had a statement to the effect that the Chief of the Defence Force's Preparedness Directive underpins output performance measurement. However no

details of the targets set in that Preparedness Directive were given, so the public was none the wiser about what the Defence force was required to deliver.

This year there is somewhat less. The output sections in the 2002–03 PBS no longer make any explicit reference to this Directive, although there is some general discussion in Output 1 and in the PBS preamble section. And each capability output section in the PBS (for example the first paragraph, p.40, for Navy) alludes to the sorts of operations that the output might be expected to undertake.

Security considerations would inhibit the publication of very detailed preparedness targets and achievements. But Defence could provide a great deal of useful information without any security compromise. Options for improved public disclosure could include:

- Setting targets for percentage improvement on an annual basis without detailing the actual preparedness levels to be maintained.
- Providing high level targets such as 'six battalion groups, each of around 1000 personnel, to be held at no more than 90 days notice to move, and most at 30 days for less' (Defence 2000, para 8.15).
- Providing scenario-based assessments of preparedness such as are included in the unclassified quarterly readiness reports to the US Congress. For example, the June 2001 report included an analysis based on a two major theatre wars in Korea and Southwest Asia (see http://dticaw.dtic.mil/readiness/).

Finally, we would encourage the option of providing classified preparedness targets and performance information to Parliamentary Committees, as occurs in the US Congress. This would require some detailed development as a policy proposal.

4.4 Making efficiency clear – the groups

Many Defence Groups are larger than most Commonwealth agencies, and it is within the Groups that most management decisions are made and accountability lies. But their budgets, staffs and performance targets are not reported to the public (see Section 3), and many of the savings measures in the PBS are attributed to group budgets that we cannot see.

In fact, the groups are the real business units of Defence. Ultimately the output prices are only attributed figures based on the revenues required to cover the expenses by groups. Quite simply, without presentation of group financial, personnel and performance targets, it is very difficult to assess the efficiency of Defence at other than the most aggregate level. To make a commercial analogy, Defence is a sole-source provider and there needs to be an 'open book' contract to ensure value-for-money.

In the absence of a benchmark for the price of Defence outputs, any assurance of efficiency must reply on an analysis of group performance.

The transparency of Defence financial arrangements and management would therefore be enhanced by the presentation of information about the groups in the PBS alongside output and sub-output information.

Such data should include not just financial performance information for the groups, but information about their targets and objectives. Very little information of this kind is provided in the PBS. For example the Defence Science and Technology Organisation consumes about 2% of the Defence budget, or over $250 million a year – comparable to the current funding for the Australian Research Council. Yet the PBS includes only six bland dot-points on p.10 to explain how that money will be spent.

Options for the presentation of group information include:

- Reinstate the dual presentation of groups and outputs that was provided in the PBS of 1999–2000. This included much useful discussion of the financial interrelation between groups and outputs. But that presentation could be expanded to include personnel, financial and performance targets for the groups.
- Use the Customer Supplier Arrangements that are being set up in Defence to provide transparency of the services provided to the output groups by the enabling groups. This would yield a powerful insight into the delivery of in excess of $5 billion of services to the outputs.

4.5 Making investment clear

The Annual Report will provide information about progress in the implementation of the White Paper including the major capital investment projects in the Defence Capability Plan. Provided the next update of the Defence Capability Plan provides the same level of detail as the 2001–10 version did, this will provide a good basis for assessment of many of the major capital projects in Defence.

But that will not provide performance targets for the more than hundred projects – including some very important ones – that pre-date the Defence Capability Plan. The presentation of Defence's budget would be improved by the development of a uniform program of performance targets and evaluation for the entire investment program.

There are a variety of ways that targets could be set for the delivery of major capital equipment projects. The United Kingdom does this rather well. Their National Audit Office provides a comprehensive annual report of progress of major Ministry of Defence projects against quantified targets. The methodology may not exactly suit DMO practice, but there are lots of good ideas to explore. (See http://www.nao.gov.uk/publications/nao_reports/)

Such a presentation should cover all projects, not just the top twenty as is done in the current PBS. It should provide information on how the costs of projects change over time. For example, cost growth from initial DCP estimates to the time of project approval is an important performance measure, because it directly affects the ability to achieve the Government's defence capability development program. And it should provide updates on expected in-service-dates for new capabilities – also a critical performance measure.

Another useful measure for the major capital equipment program is the ratio of annual expenditure on major capital equipment to the remaining cost of approved projects yet to be paid. This ratio grew alarmingly in the late 1990 and it is unclear what the situation is now.

4.6 Making the personnel picture clear

There are four ways that the presentation of personnel information could be made more transparent in the PBS:

- The PBS mentions shortages of personnel in several places but it is nowhere quantified. The predicted strengths of the Services in the upcoming year could be compared with the Service personnel required to deliver the capabilities funded by Government in the White Paper.
- Recruiting and retention targets for the upcoming year could be given. And reported figures should identify separations that are management initiated.
- Targets and expenses for the planned use of 'professional service providers' could be given to complete the workforce picture.
- The planned combat/combat-related component of the ADF for the upcoming year could be given on the basis of the 1996 DRP baseline. This would help track progress towards the Government's goal of a 65% combat force.

4.7 Making the dollars clear

The PBS could do a better job of displaying and explaining how much money Defence gets. As we noted in Section 2.1, the PBS does not give a useful and realistic figure for Defence funding, and there is a lot of confusion about how much money Defence is actually getting. For example, the Minister's Budget press release gave a figure of $14.3 billion for Defence funding that is not explicitly provided in the PBS.

We think our Table 2.1.1 does a better good job of explaining the total Defence resource picture, and we recommend that the approach we have taken in this Budget Brief should be adopted as the standard basis for describing Defence funding.

Key trends and pressures

The Government's White Paper is a funded plan for the delivery of capability over time. It would be useful if the PBS explained how the White Paper assumptions for personnel, operating and capital investment costs are holding up in terms of the plan presented for the next financial year.

Funding measures

The PBS presentation of funding measures and adjustments could easily be improved include:

- Clearly identifying those budget measures previously funded in the PAES but presented for a second time in the budget.
- Providing clearer explanations of individual budget measures. For example, the cryptically named 'Funding to cover shortfall in non-property sales' is hardly illuminating.
- Providing a clear reconciliation of the total funding measures with the previous and budget estimates. That is, show explicitly that previous estimate + new

funding = budget estimate. This year, such a presentation would have revealed the undisclosed $15 million funding adjustment.

Most importantly, the piecemeal measure-by-measure presentation of budget estimates fails to make clear the most fundamental of Defence funding questions – has the Government made good on the Government's White Paper commitment to Defence? The White Paper funding is built into the funding base from 2001–02 and is all but invisible in the 2002–03 PBS. Indeed, the price-updated White Paper funding is only mentioned within a description of a budget measure for increased munitions war stocks [PBS p.22]. We have had to construct a model using fragmentary public data to try and depict the funding layers, see Section 3.

In contrast, the *2002–03 Commonwealth Budget Overview* published by Treasury presents a chart (much like the one in our Section 3) that shows how the Defence budget is built up. This is useful information that the public is interested in. Unfortunately, the Treasury chart adopts a cash-based accounting approach that cannot be reconciled with Defence's accrual funding in the PBS using publicly available information.

If the above measures had been incorporated into the overview section of the PBS it may have avoided some of the confused speculation in the media about the delivery of White Paper funding in the budget.

Financial statements

The transparency of the Defence financial statements could be improved by including detailed notes to the financial statements, as were provided in the 1999–2000 and 2000–01 PBS. Covering among other things, inventory consumption and inventory purchases, and assets under construction. The first two quantities are particularly useful in understanding the underlying link between activity and financial performance. Other issues worth considering include the following:

- Given the size of the proposed sales of property, plant and equipment – expected 2002–03 proceeds, it would be informative to see a figure for profit/loss on sale.
- A note reconciling the impact of GST on cash flows – as things are, comparisons between expenses and cashflow are difficult, because expenses are net of GST and cashflows are gross of GST.
- Ensuring all items in the budget are adjusted across the forward estimates especially those where a change to expenses will drive a change to the balance sheet – for example, supplier liabilities remain static despite changing supplier expenses.

SECTION 5 – TOP 20 PROJECTS

Complied by:

Gregor Ferguson
Daniel Cotterill
Tom Muir

Editor and Senor writers of Australian Defence Magazine

Contents

Caution: inflation and currency exchange rate fluctuations can result in apparent changes in budget values without necessarily a change in project scope and cost in real terms.

ANZAC Ship Project (Project Sea 1348)

Project overview and key issues

The ANZAC Ship project has been a genuine success story for Australia's defence industry, but overshadowed by widely publicised problems afflicting other high-profile acquisition projects.

The ANZAC Ship project was established in the late 1980s to replace the RAN's six River Class Destroyer Escorts with eight modern frigates, but of similarly modest capability, and to build them in Australia.

Following competitive tenders for two different ship designs, the German MEKO 200 and the Dutch M class, a contract was awarded in 1989 to the now Tenix Defence Systems to build ten ships to a modified MEKO design, including two ships for the RNZN. (New Zealand did not exercise an option to buy ships 11 and 12 at the end of production.) Anzac ships are being assembled at the company's dockyard in Williamstown, from modules built elsewhere in Australia and New Zealand.

At 3,600 tonnes displacement the Anzac is somewhat larger than the standard MEKO 200 platform and its combat system specified by the RAN is unique to the Anzac class. The ships were armed originally with NATO Sea Sparrow short-range air defence missiles and a 127mm (5-inch) gun. The mix of imported sensors and weapons is integrated with a Swedish-origin tactical data system that was extensively developed in Australia by the now Saab Systems.

The ships' modest combat capabilities were limited by the ceiling price of $3,807 million and left the question of the ships' undersea and surface warfare capabilities to be further considered – in the jargon of the time they were 'fitted for but not with' more capable weapons and sensors.

Subsequent capability enhancements include equipping the ships with the Nulka active missile decoy and the more capable NATO Evolved Sea Sparrow Missile (ESSM), and current upgrade programs include provision for Anti-Ship Missile Defence (ASMD) and additional undersea warfare capabilities, the former under a separate project. The acquisition of Super Seasprite helicopters under another project (now experiencing software delays) will enhance the ships' surveillance and surface and anti-submarine warfare capabilities.

Five Anzac ships are in service with the RAN and RNZN, Ship 06 (Stuart) will be delivered in June 2002, Ship 07 (Paramatta) is fitting-out and Ship 08 (Ballarat) was launched in May 2002. Ship 10, the last of class, is scheduled for delivery in 2006.

While costs have been held in general through minimising major design changes, the delivery schedule has slipped by mutual agreement between customer and contractor. Deferring final delivery by two years has enabled Tenix to reduce working costs and maintain essential skills for the future Air Warfare Destroyer project (Sea 4000) and has provided the RAN in turn with more time for recruiting and training crews.

By any standard the ANZAC Ship Project has been successful. Price and quality have been held to contract standards and there have been few problems of any significance. Much of this success has been due to the very close interaction of contractor and customer.

Australian Industry Involvement (AII)

For this major shipbuilding activity Australian New Zealand Industry Involvement has been of critical importance, with a core industrial capability established for product life support through carefully organised local content arrangements.

The 70 per cent local content target for the Anzac Ship project has been achieved. There is now a coterie of suppliers, large and small, able to contribute to the support of the Anzac and future ship production projects. The Anzac ship ANZII program has become a model for other major projects to emulate. Recent studies sponsored by the DMO and Australian Industry Group (AIG) have identified significant capability and national economic benefits from building these ships in Australia.

Airborne Early Warning and Control (Project Air 5077)

Project Overview and Key Issues

The airborne early warning and control (AEW&C) aircraft to be acquired by Australia are based on Boeing's 737-700 twin-engined airliner fitted with a radar of over 400km range being developed by Northrop Grumman.

Airborne radar can see much further than ground based systems in much the same way that a better and more distant view is obtained from the top of a hill.

Operating the radar at an altitude of 10,000 metres or so results in coverage of a large area such that enemy aircraft are detected early and cannot launch a surprise attack by flying in low beneath the coverage of ground based radar systems. Mounting the radar on a fast moving, long-range aircraft also increases its coverage and the system's overall flexibility.

The control function is crucial to the overall AEW&C system's effectiveness. Airborne controllers aboard the AEW&C aircraft will be able to direct fighters and other ADF assets, thus maximising the fighting power of a modest defence force. Hence the AEW&C system is seen as a crucial force multiplier.

It was originally intended to buy six AEW&C aircraft but this was reconsidered in the lead-up to the 2000 Defence White Paper and the contract covers four machines with options for up to a further three.

Critics of this decision suggest that Australia is now buying four aircraft for the price of six as the high level of non-recurring development expenses has pushed up the unit price. However, six sets of AEW&C equipment are part of the initial order, indicating a strong likelihood that two more aircraft will eventually be procured.

The cost to purchase aircraft five and six is $US175 million for the pair, while the cost to purchase aircraft seven will be a maximum of $US250 million. A decision on exercising these options must be made no later than June 2003.+

Any large and technically complex military procurement project carries an element of risk and AEW&C is no exception. Major airframe modifications are necessary to fit the radar, but the most challenging area is likely to be in the development of the radar and mission system computer software.

Boeing recently completed the critical design review of the radar, clearing the way for it to enter production. A recent ANAO report commented that the test and evaluation of the AEW&C program was benefiting from the close working relationship established between the contractors, Defence and Air Force Personnel. ^

As prime contractor for the AEW&C system, Boeing has a lot riding on the successful and timely introduction into RAAF service. With potentially many billions of dollars worth of follow-on orders from other countries in jeopardy if the system has too many teething problems, Boeing is certain to devote the resources necessary to this project to ensure its success.

Also, both the Commonwealth and Boeing will be applying many of the lessons learned from previous unsuccessful software projects, notably the Collins Class submarine combat system.

Australian Industry Involvement (AII)

Under the original plan to buy six aircraft, five of them would have had the necessary airframe modifications performed here by Boeing Australia. However, the reduced scope of the project saw this opportunity lost and this work will now be conducted exclusively in the US.

Boeing Australia and BAE Systems Australia are the main local companies involved in an AII program that comprises over $400 million in local content and over $800 million in strategic industry development activities. While a specified percentage has not been set, the local content program represents about 18% of the contract price.

Air to Air Weapon Capability (Project Air 5400)

Project overview and key issues:

The Air to Air Weapons project was established to replace the short-range AIM-9M Sidewinder and medium-range AIM-7M Sparrow missiles which armed the RAAF's fleet of F/A-18A/B Hornet fighters from their delivery in 1980. These weapons are being replaced by the AIM-132 Advanced Short Range Air to Air Missile (ASRAAM) and AIM-120B Advanced Medium Range Air to Air Missile (AMRAAM), respectively.

These new missiles will go a considerable way to restoring the RAAF's air combat capability edge within the region. This had been eroded by deliveries into south east Asia of advanced western and eastern-bloc aircraft such as the F/A-18C/D and F-16C/D, and the Russian Mig-29, which is armed with advanced Russian short and medium-range air to air missiles. The acquisition of AMRAAM and ASRAAM will transform the combat capability of the Hornets, largely justifying the decision to keep them in service until 2012-2015.

To replace the Sparrow, the RAAF ordered the AMRAAM from the US Air Force under a Federal Military Sales (FMS) purchase deal. This is a faster, more agile and longer-range weapon with a more advanced guidance system. Integrated with the upgraded Hornet's new Raytheon APG-73 radar, it is a 'fire and forget' weapon - once launched it flies autonomously to the target. Unlike the Sparrow, the AMRAAM/APG-73 radar combination allows a single aircraft to engage several adversaries simultaneously from a far greater distance than was possible before. AMRAAM has been proven repeatedly in combat service with the US Air Force, Navy and Marines, and with the UK's Royal Navy. Singapore is the only other AMRAAM user in our region at present.

Deliveries of the AMRAAM are complete and the RAAF's Hornet upgrade program (Air 5376) is implementing the radar and avionics changes necessary to exploit the full capabilities of both AMRAAM and ASRAAM.

The RAAF ordered the ASRAAM in 1998 from what is now MBDA (one of whose shareholders is BAE Systems) in a commercial contract of undisclosed value. The ASRAAM is much faster than Sidewinder, more agile, with a considerably greater range and is far more resistant to counter-measures and decoys.

ASRAAM was chosen in part because this is the first guided weapon acquired in the last generation to which Australia has been granted full technology access. The UK and Australia will collaborate on future development of the missile to field new enhancements faster and cheaper. Improvements derived from research carried out by DSTO and the RAAF will be shared with the UK, while UK-developed enhancements will be shared with Australia.

The project was delayed for nearly a year by a contractual dispute between MBDA and the UK Ministry of Defence in early-2001 over ASRAAM's performance. This had a knock-on effect on the RAAF which has slightly different performance requirements from the UK, but wants missiles of the same software configuration and build standard.

A Dispute Resolution Agreement (DRA) was struck in January this year, clearing the way for initial ASRAAM deliveries to the UK MoD that same month. The DRA provided for an incremental increase in missile performance over two, possibly three, additional software configurations beyond that delivered in January. The Commonwealth and MBDA are currently negotiating a revised delivery schedule and also the missile configuration to be delivered to the RAAF compared to the UK incremental capability resulting from the DRA. The Commonwealth will begin formally evaluating the performance of the ASRAAM capability offered by MBDA in July this year. This process, including RAAF live test firings at Woomera, is expected to take some months.

This is the first export sale for the ASRAAM and the first to an air force equipped with the F/A-18 Hornet; the project cost included a lengthy integration process, involving flight trials and test firings, by Hornet manufacturer Boeing in the US, supported by the US Navy.

Australian Industry Involvement (AII):

AII Target: AMRAAM – none. ASRAAM: BAE Systems Australia will build a missile support facility, most likely in Adelaide, including a software support and computer modelling centre to facilitate weapon enhancements in partnership with DSTO; the company will also carry out maintenance and integrated logistic support of the weapons.

ANZAC Ship Helicopter (Sea 1411)

Project Overview and Key Issues

Defence is in the process of acquiring 11 Super Seasprite helicopters to operate from its eventual fleet of eight ANZAC Class frigates. The helicopters are to enhance the ships' surveillance and offensive capabilities as they are equipped with radar and other sophisticated sensors along with torpedoes and anti-ship missiles. Flight simulator and support facilities are also being acquired.

The Seasprite is referred to as the SH-2G (A) with the (A) denoting the Australian configuration, and here lies the basis of extensive problems for this project which is running years late and has yet to procure any fully compliant helicopters.

Deliveries of fully compliant aircraft were to have commenced in late-2000 and be completed by August 2001. To date, eight aircraft kits have been received in Australia for assembly but not accepted because their software is unfit for purpose. The delivery of fully functional helicopters will now not begin before December 2004.

The support contract has come into effect in accordance with the original schedule with some $30 million paid out already by Defence despite the fact no helicopters are in service. Defence are currently negotiating an agreement that will see the original 10 years of support delivered at no extra cost.

The main cause of the current problems is the failure of major sub-contractor Litton Integrated Systems to successfully develop the integrated software package necessary to run the "Australia only" suite of sensors, avionics and weapons.

Currently, the radar, datalink capability and the Penguin anti-ship missiles are not integrated with the mission control system. Without this software the helicopters cannot fulfil their intended role.

Three main criticisms have been made of the conduct of this project: that Defence's project management team should have prevented this state of affairs; that the contract should have had more effective damages clauses to encourage contractor performance; and the support contract should not have commenced before the helicopters were accepted.

However, it was prime contractor Kaman Aerospace International's job to manage Litton, and Defence says it regularly and forcefully expressed concern to Kaman over the performance of its sub-contractor, and withheld some payments. Defence also advises that the contract did not have liquidated damages clauses primarily due to the excessive cost of the inclusion of these clauses.

The possibility of significant legal action over this contract has not been ruled out.

A broader question is whether Defence should seek to buy "Australia only" solutions on projects like this with only a small production run; a path that incurs significant development costs and increases exposure to high levels of technical risk.

Defence's position is that the aircraft will be delivered late but will achieve 100% of the required capability. However, many challenges remain to be overcome before the originally specified capability can be achieved.

Australian Industry Involvement (AII):
Kaman is teamed with Tenix Defence, CSC Australia, Scientific Management Associates and Safe Air NZ. CSC Australia has taken over the major software sub-contract abandoned by Litton and is providing systems engineering and software development and support, and the development of a new operational flight trainer.

Scientific Management Associates' involvement covers logistics analysis and supply support functions, and providing training and documentation. Safe Air of New Zealand is providing design services, aircraft assembly, maintenance and overhaul. Safe Air will also design and manufacture aircraft ground support equipment.

The contracted AII obligation is $229.8 million and Kaman is reporting achievement to date of $156.5 million, with projected achievement of $308.1 million.

Armed Reconnaissance Helicopters (Project Air 87)

Project overview and key issues:

The Army has long been short of modern airborne surveillance and reconnaissance capabilities: at present, Army's only assets are its fleet of Vietnam war vintage Bell 206 Kiowa helicopters, with no sensors and self-protection systems.

However, from 2004 the Army will start fielding 22 Eurocopter Tiger Armed Reconnaissance Helicopters (ARH) which will equip two squadrons based in Darwin. The Tiger is a tandem two-seat helicopter, built largely from carbon fibre composites and carrying a pilot in the front cockpit and 'battle captain' – the tactical coordinator and aircraft commander - in the rear, both equipped with a helmet-mounted sight system. It is armed with a 30mm gun and can carry rocket pods and Hellfire anti-armour missiles. Equipped also with infra red, electro-optic and passive electronic sensors, it will replace both the Kiowas in the reconnaissance role and Army's equally old Bell UH-1H Iroquois gunships.

Despite carrying Hellfire precision weapons to engage hard targets with reduced risk of collateral damage, the ARH is primarily a reconnaissance aircraft which can also provide an armed escort for troop-carrying Blackhawk and Chinook helicopters and effective, though not overwhelming, fire support to the land force.

The 'ARH Tiger' is based closely on the French Army's Tiger HAP variant. In December 2001 the DMO signed a $1.3 billion contract with Eurocopter for 22 aircraft and a full-flight simulator, of which 18 aircraft will be assembled in Brisbane with deliveries to commence in 2004. The approved project budget is reportedly $1.64 billion.

The Tiger's sensor, mission computer and tactical data link system will gather surveillance data and transfer this with the minimum of re-formatting to associated Army units and formations through the ARH's Ground Mission Management System (GMMS), which will be the interface with Army's Battlefield Command Support System (BCSS).

Major differences between the ARH Tiger and the French Army version include the Hellfire missile – Australia is the first Tiger customer to order Hellfires, and the Tiger will be the first non-US platform to carry these weapons. US government export clearance for the missiles has been granted. The aircraft will also carry an Australian-specific radio/data link suite.

Implementing all these changes and modifying the largely off-the-shelf flight simulator to reflect them is expected to be a relatively low-risk undertaking.

This project has been subjected to repeated delay, most recently due to the White Paper development process in 1999/2000 and then the introduction of the new SMART (Strategic MAteriel Request for Tender) 2000 acquisition methodology. Air 87 was the first project to employ SMART 2000 which is designed to reduce the cost of tendering and accelerate the introduction of new equipment into service. While demanding and complex for the contenders and DMO, the process took just 12 months from release of the RFT to contract signature, instead of the normal 24 to 30 months.
Since release of the RFT, this project has passed all of its major milestones on schedule. There is no reason to think that the aircraft's service entry will be delayed. A fully operational capability, with two trained squadrons, will be achieved by the end of 2008.

Australian Industry Involvement (AII):

AII Target: In-service support capability, especially for sensors, mission and EW system software and airframe and mechanical repairs.
AII Achievement: The Tigers will be assembled and maintained at a new facility to be built by Eurocopter's subsidiary, Australian Aerospace Pty Ltd in the Brisbane area; this will be their support base, sustained by an assembly line for Eurocopter's EC-120 Colibri light turbine helicopter. ADI Ltd will be responsible for the systems integration and software support aspects of the contract; Thales Training and Simulation will supply the flight simulator; and Haliburton KBR Pty Ltd will be responsible for operating the training systems and simulators.

Australian Light Armoured Vehicle (ASLAV - Project Land 112)

Project overview and key issues:

The Australian Light Armoured vehicle (ASLAV) is a variant of the 2nd generation Light Armoured Vehicle (LAV 2), of which over 2,000 have been manufactured by General Motors Defense in Canada.

ASLAV is an 8x8 wheeled all terrain light armoured vehicle. In its troop carrier variant it can carry nine troops and a driver. The three-man armed variant carries a 25mm gun in an electrically-powered turret with gunner and commander's day/night sight.

Under Phases 1 and 2 of this project Army ordered 126 ASLAV, worth $382 million, between 1991 and 1998. In Phase 3, the Army in 2001 ordered a further 144 ASLAV worth $364 million; this phase will also retrofit Army's existing fleet to an enhanced common standard with Phase 3.

The ASLAV has performed well in East Timor and on various field exercises and is liked by its crews. The vehicle has proved a reliable and effective surveillance, patrol and rapid-response asset, and the passive surveillance capabilities of its day/night weapon sight and fire support potential of its 25mm gun have been invaluable. GM Defence Australia this year called for tenders to outfit between 10 and 25 vehicles as ASLAV-S Surveillance variants, incorporating mast-mounted radar, electro-optic and infra red sensors.

The project has been a relatively low-risk undertaking. All ASLAVs are manufactured by GM Defense in Canada and use the baseline LAV 2 hull/drive train/turret package with no fundamental configuration changes.

Planned, but unapproved, future phases of the project seek to maintain the capability edge of ASLAV through regular upgrades. Further vehicles might be acquired as part of the Light Armoured Mortar System Project (Land 135), decision date FY04/05.

Australian Industry Involvement (AII):

AII objectives or Phase 3 were not framed in workshare or capital value percentage terms but aligned instead to Army's long-term support needs and the establishment of a sustainable industry support base; negotiating these AII goals resulted in a two-year delay in signing the Phase 3 contract. GMDA proposed four AII models, including local assembly of ASLAV hulls, which was rejected by the DMO. In the model adopted by the DMO, GM Defense's subsidiary in Adelaide, GM Defence Australia Pty Ltd, will manufacture 25mm gun turrets for most variants of the LAV family sold worldwide, and also support (possibly even assemble) LAV 2 variants sold into the region. GMDA has also established logistics and maintenance bases in Adelaide and Darwin to support the Army. British Aerospace Australia's military vehicles division (now Tenix Defence Land Systems Division) designed, manufactured and installed Mission Role Integration Kits (MRIK) to configure the ASLAV to meet specific Australian Army requirements under a sub-contract worth $34 million. Some 23 primary and

over 90 secondary components suppliers in Australia and New Zealand have been accredited as members of General Motors' global supply network.

ADI Ltd is developing a Behind-Armour Commander's Weapon Station (BCWS) for the turret-less personnel carrier variant of ASLAV, which may have significant export potential, though ongoing Intellectual Property issues have delayed development. GMDA is also pursuing potential ASLAV export orders in Thailand and the Middle East.

ANZAC Ship ASMD Upgrade - Project Sea 1448

Project overview and key issues

Famously described in 1998 by then-Minister for Defence Industry, Science and Personnel Mrs Bronwyn Bishop as 'floating targets', the RAN's Anzac-class frigates are about to undergo an upgrade which will enhance their survivability against missile and air attack.

The Anzac ship class was initially contracted with a modest surface and underwater self-defence capability limited by the ceiling price, leaving the ships' future surface and subsurface warfare capabilities to be considered later. The Anti-Ship Missile Defence (ASMD) upgrade program (and a separate Undersea Warfare Upgrade Program) address these limitations with the objective of enhancing the ships' capability against current and medium term threats.

An earlier attempt to define and implement a comprehensive upgrade for the Anzac combat system, the Warfighting Improvement Program (WIP), combined Anti Ship Missile Defence with an Area Air Defence capability including a potential growth path to such capabilities as Theatre Ballistic Missile Defence, which would have transformed the Anzacs from frigates into major warships.

WIP failed because it was over-ambitious for the platform, the contractors employed as a team to define the requirement were clearly competing with each other for their solution, and funds were simply not available. But important lessons were learned and Defence initiated a combined Defence/Industry study to assess the feasibility and effectiveness of several capability options, focussing on defence against missile attack, a major capability shortcoming of the Anzac. DSTO then assessed the proposed enhancements in more stressing environments using simulation and modelling techniques. The study product was input into the Defence decision process.

The Anzac Alliance, comprising the Commonwealth, Tenix Defence and Saab Systems, is presently tasked with implementing the findings of the study and to determine if the modelled capability can be procured, integrated, introduced into service and supported within the program budget and, subject to future approval, implemented.

Currently, the ASMD project proposes the addition of the following: an Infrared Search and Track missile detection system that detects thermal energy radiated by missiles; a capability enabling near simultaneous launch of more than one ESSM (Evolved Sea Sparrow Missile) against identified incoming threats, referred to as a second channel of fire; a very short range anti-missile missile system as a second defensive layer; and an option to upgrade the existing SPS-49 surface search radar to improve its small target detection and track capability.

The ships' existing Saab Systems tactical data system will require further development to enable it to integrate the functionality of the new equipment and process the increased information flow. The Anzacs' Nulka active missile decoy and other decoy systems are retained.

The Alliance has issued tenders for the Infrared Search & Track (IRST) and the short range anti-missile missile system and is able to draw on the SPS-49 radar upgrade that is included in FFG Upgrade Program. Enhancements to the tactical data system will be carried out in-house by the Alliance.

The Alliance was expected to begin evaluating responses to the issued RFTs this month (May). To reduce the likelihood of error and project risk it is probable that the Alliance will seek comment from DSTO and demonstration of short-listed equipment. Thus it is anticipated that the final recommendations by the Alliance, followed by Defence endorsement and approval to proceed will not be achieved before the end of the year.

The adoption of the ASMD project will significantly improve the safety of Anzac ships operating in high threat environments and may contribute to the development of similar capabilities for the RAN's future Air Warfare Destroyer (Sea 4000).

Australian Industry Involvement (AII):

As would be expected there will be considerable involvement by Australian industry in the ASMD program through the integration, development, test and verification of the capability using existing shore-based facilities operated by the Alliance members Tenix and Saab and in the installation and through life support of equipment including software maintenance.

Bushranger (Project Land 116)

Project Overview and Key Issues

Project Bushranger was created to increase the mobility of Australia's infantry soldiers by equipping their units with four-wheel drive armoured vehicles that offer protection against small arms fire and mine blasts.

This class of vehicle is referred to as an Infantry Mobility Vehicle (IMV) and its role is to deliver foot soldiers to their area of operations in relative comfort and safety so they are fresh and ready to complete their set tasks. An IMV is not a tank or armoured fighting vehicle.

A $200 million contract was signed with ADI Ltd on June 1, 1999 for the supply of 350 of their Bushmaster IMVs in six variants including troop transports, command vehicles and ambulances.

Production was then expected to commence in mid-2000 with the first vehicles entering service two years later; however the project has been beset with delays and uncertainty and was almost cancelled at the recommendation of the Defence Capability and Investment Committee at the end of last year.

At issue are concerns over the long-term reliability of the Bushmaster and some changes in specification. The reliability problems are mainly in the vehicle's drive-line and concern the durability of axles, drive shafts and hubs. A Bushmaster has an all-up weight of about 14,000kg and so imposes comparatively high loads on these components.

The Bushmaster's detractors also question the vehicle's off-road mobility and air transportability on the basis of the hefty footprint created by such weight being supported on only four wheels.

Major changes to the design since contract signing have included both the engine and transmission. Other variations have included a larger back door and relocated hatches, a tenth seat, fitting the vehicle "for but not with" a grenade launching system, fitting an automatic fire and explosion suppression system and "run flat" inserts for the tyres. An additional internal appliqué armour kit has also been under consideration

The specification changes and design rectification could see the project cost increase by about $70 million and as few as 300 vehicles may now be procured.

Negotiations between Defence and ADI have been looking at the potential to commence early low rate production, with early formal tests of the prototype and then the first production vehicles before proceeding to full-scale production.

Army still wants the vehicles as soon as possible and ADI still wants to build them, but the government will decide whether or not to proceed as the necessary cost, capability and schedule variations go beyond Departmental delegations.

A decision is expected in early June this year but, at best, it is likely to be 2004 before any vehicles enter service.

The two main causes of this project's problems are insufficient time being allowed to get a prototype vehicle into production, and signing a production contract when the final specification Army required had yet to be finalised.

Australian Industry Involvement (AII)

ADI Ltd has been contracted to achieve AII levels of 68%. If the project proceeds the Bushmasters will be manufactured at ADI's Bendigo facility in Victoria. At the time of contract signing ADI estimated that the project would create 40 new jobs, mainly among shop floor personnel.

Delivery will be co-ordinated with respective logistic support arrangements. Through life support for the IMV fleet is expected to include extensive commercial support services contracted to ADI.

Collins Capability Improvements/Augmentation (Project Sea 1439/1446)

Project overview and key issues

This is a wide ranging multi-phased project aimed at maximising the capability of the Collins class submarines by rectifying deficiencies in their platform and combat systems, enhancing their sensor and communications systems and finally introducing a program of continuous improvement.

The original Collins-class submarine construction project (Sea 1114) sought to provide an advanced submarine capability for the RAN out to 2015 and beyond. But due to shortfalls in the capability of the delivered submarines a new project - Collins Class Augmentation, or Sea 1446 - was introduced as an interim measure to bring three submarines, Collins (01), Dechaineux (04) and Sheean (05), to an acceptable level of operational capability for which funding of $266m was approved.

This project was concerned essentially with short term improvements and, as the 'trials platform', Collins underwent propeller and hull improvements and some augmentation of her combat system with much of this work drawing upon the US Navy's expertise and equipment. (The USN had encountered similar data handling problems in the combat systems of their Los Angeles class nuclear attack submarines and had developed augmentation packages for this purpose).

Under the 'fast track' program Dechaineux and Sheean were brought to the minimum level of operational capability (MLOC) standard (about 75% of the originally-planned capability) with measures to provide improved self protection, self defence, discrete high speed communications and better mechanical reliability. The program was subsequently widened and the functionality of the combat systems of Dechaineux and Sheean was augmented beyond that provided for Collins and a $72

million upgrade of Farncomb (02) and Rankin (06) was approved involving modifications to their propellers and improvements to hydraulic systems and propulsion.

While solutions to meet platform systems shortcomings have been implemented on the two 'fast track' submarines, these and other capability enhancements need to be implemented on the remaining four submarines as opportunity permits, noting that the majority of these issues still require design and support development. This activity, together with overall infrastructure improvements has been approved under Phase 3 of Sea 1439

Also approved is Phase 4B, which comprises enhancements to the submarines' sensors including sonar, electronic surveillance and towed array processing as well as improvements to the communications functions. But a major hurdle to achieving full operational capability has been the unacceptable performance of the combat system due to major shortcomings in sonar processing and data integration. It was initially proposed to replace the combat system with a commercial off the shelf (COTS) system and following integration studies and the issue of a formal request for tender, systems proposed by STN Atlas and Raytheon were evaluated.

However this process was cancelled in favour of a collaborative arrangement with the US Navy under which much of the combat system technology will be sourced from overseas with local industry involved in the integration and installation of the system as well as supplying some components and specific support activity. This acquisition strategy is considered a significant risk mitigation factor in that most of the equipment will be non-developmental and in service with the USN.

An Initial Design Study involving Raytheon, STN-Atlas and Thales Underwater Systems, ie those companies participating in the earlier COTS acquisition proposal, together with DSTO, has been completed. It details the cost, schedule and risk of acquiring, integrating and installing the new combat system and peripheral systems and will be considered by Cabinet in the context of the 2002/03 Budget. If approved it is anticipated that the work will be undertaken either by a formal alliance comprising the Commonwealth and the above three companies, or by selection of a prime integrator.

The final phase of Sea 1439 involves a rolling program to maintain the capability of the upgraded submarines with an overall objective of avoiding the need for a mid-life upgrade program.

Australian Industry Involvement (AII)

Involvement of Australian industry is a key requirement of this project and the level of AII is expected to be higher than in building the submarines when 70% of the platform work and 45% of the combat system work was performed in Australia. While the capability enhancements and improvements to the Collins submarine fleet involve overseas sourcing of major equipment items there is very considerable scope for the continued involvement of Australian industry in the integration, installation, and long term support of the submarines and their equipment as well as ongoing opportunities for the manufacture and supply of components.

New Submarine Project (Project Sea 1114)

Project overview and key issues

This project was introduced in order to replace the Navy's Oberon class submarines, then nearing the end of their life of type, with six new highly capable submarines designed to meet Australia's unique operational requirements. Despite serious deficiencies in platform and combat systems - problems that are being resolved - this very ambitious project has emerged as an outstanding industrial achievement, endowing this country with a degree of defence self reliance, never previously achieved.

A contract was awarded to the Australian Submarine Corporation (ASC) in June 1987 to build six Swedish-designed (Kockums Type 471) submarines fitted with a combat system designed and developed by the then Rockwell Collins Australia for a total project cost of $3.9 billion in June 1986 prices. A major feature of the program was the decision to manufacture the submarines in Australia, despite significant inception costs, with a very high local content target worth more than half of the original contract value. And as project sponsor, the Navy had very advanced ideas about the performance it wanted from the fully integrated combat system, using US weapons and fire control systems. Risk was therefore considerable in a project that sought to build locally a new and unproven platform in which would be fitted a locally-specified and overseas-designed and produced combat system.

Construction of hulls, using specially developed high tensile steels and welding techniques, and their fit-out with conventional controls and electrical systems and equipment proceeded without serious delay. Major sensor systems such as the sonars and periscopes, the latter largely manufactured, assembled and tested in Australia, lagged somewhat but within the delivery tolerance for a project as complex as this one. Assembly of the diesel and electric propulsion motors was also undertaken in Australia as were the batteries.

While the tangible aspects of the construction project were going very well, the intangible aspects of the tactical data system were not. Among initial design flaws was the immutable commitment to system hardware that effectively precluded any trade-off between hardware and software performance. A review of the project, the 1999 *McIntosh/Prescott Report*, detailed the platform and combat system deficiencies and found few for which remedies were not immediately available, with the combat system being the principal technical challenge. Resolution of these issues is now being handled by separate projects aimed at achieving the full operational capability of the submarines.

Five submarines, SM01 HMAS Collins, SM02 HMAS Farncomb, SM03 HMAS Waller, SM04 HMAS Dechaineux and SM05 HMAS Sheean have been provisionally accepted into Naval service while SM06 Rankin is receiving a capability upgrade prior to acceptance this year (2002). This project is now close to completion.

Australian Industry Involvement (AII)

The original target of 60% local content has now been exceeded with 72% of project cost expended in Australia, involving more than 100 companies. The ambitious AII plan has led to new or enhanced industry capabilities across a range of sectors with areas of excellence established for software development and integration, battery technology, management information systems, sonar array design, training development, weapon discharge systems, logistics support, periscope technology and range operations.

FFG Progressive Upgrade (Project Sea 1390)

Project overview and key issues:

This project aims to upgrade the RAN's six guided missile frigates to improve their combat capability and survivability; however, with the final design yet to be approved program delays are already evident - the Critical Design Review is not scheduled until August 2002.

The RAN has six US-designed *Oliver Hazard Perry* class guided missile frigates (FFG-7), four of which were built in the US and two in Australia, joining the RAN between 1980 and 1993. Their modest combat capability includes anti-air and anti-ship missile systems, a 76mm gun and torpedo tubes, further enhanced through the addition of Seahawk helicopters and the Nulka anti-missile decoy.

The FFGs' sensor and weapon systems have remained largely unchanged and their capability for operations in a more complex regional threat environment has progressively diminished. The ships have also experienced supportability problems through component obsolescence and the high maintenance cost of some equipment and systems.

The upgrade aims to restore their parity against regional capabilities through upgrades to their air defence, anti-submarine and anti-surface warfare capabilities. There is specific emphasis on improved self-defence against anti-ship missiles - a significant performance shortcoming. Platform remediation work will extend the service life of the first four ships out to 2013-2017 and the two younger Australian-built ships out to 2017-2020.

Following completion of design and documentation studies by ADI Limited and Tenix Defence Systems the request for tender for the upgrade implementation contract was released to both companies in June 1997. The $897 million prime contract subsequently signed with ADI in June 1999 was later increased to $962m (both in Feb '98 dollars) with the incorporation of enhanced EW and other options. The FFGs will be modified progressively at ADI's Garden Island facility during ship Self Refit Activity (SRA) periods depending on fleet availability. The first ship was to be upgraded this year with the last completed in 2006, however this schedule has slipped.

Teamed with ADI are principal subcontractor Lockheed Martin (combat system upgrade), Gibbs & Cox (platform systems design) and Thales Underwater Systems (underwater warfare programs). ADI is responsible for detailed installation design and recently assumed design authority for the combat system from Lockheed Martin.

A Land Based Test Site at Garden Island, likely to be commissioned by late 2002,will progressively replicate and validate the ships' combat system. Upon completion of the upgrade this facility will be reconfigured as a Weapons System Support Centre to provide through life support for the upgraded combat system.

Extending the life and reliability of the platform is not considered unusually difficult, but improving the ships' combat capability is a much more complex undertaking and program delays are already evident with the final design yet to be approved. The Critical Design Review is planned for August 2002. However this may be of little practical consequence with first ship availability likely delayed until the third quarter of 2003 due to the present tempo of naval operations.

ADI is recruiting the US Navy as a subcontractor to modify software for the Weapon Control Processor, the heart of the MK 92 combat system starting June 2002. This together with the early transfer of its design authority status to ADI suggests a diminished role for Lockheed Martin in the program.

According to Defence's Revised Estimates 2001-02, almost half (47.5%) of approved project expenditure of $1,413m will have been exhausted by the end of this financial year. This may simply reflect advance payment for long lead items but it also suggests little leeway to absorb additional costs arising from program delays or design variations that may yet occur.

Australian Industry Involvement (AII):

ADI is contracted to achieve AII levels of 58% of the contract value of the program, and will establish a manufacturing capability for the upgraded Mk92 Mod 12 fire control system in Australia. Local support and maintenance of new operational software is an important component of AII. But due to the increasing value of US-sourced upgrade components against a declining Australian dollar this dollar target may be difficult to achieve although its intent is likely to be realised.

High Frequency Modernisation (Joint Project 2043)

Project overview and key issues:

This new high frequency communications system replaces the separate HF stations operated by the Navy and the Air Force with a modern ADF-wide communications system. It comprises four new HF transmission and receiving stations, interconnected by a wide area network (WAN) and linked to upgraded HF systems in Navy, Army and Air Force mobile platforms and shelters.

The HF communications technology is not new, the newer component in this undertaking being the implementation of the WAN and its use to manage data and integrate and control the remote transmit/receive sites. HF systems are strategically important for widely dispersed military forces because, being terrestrial, they can be designed to be highly survivable and capable of covering much of the earth's surface. With its large land-mass and larger offshore areas of interest Australia is an ideal candidate for a robust HF communications system.

The core of the Modernised HF Communications System (MHFCS) comprises the four fixed, remotely operated stations, located in the Riverina (Vic), Northwest Cape (WA), Darwin (NT) and Townsville (Q) sites. These sites provide offshore military communications coverage beyond and within Australia. The Communications Centre, located in Canberra, controls the network's operations and the four sites are connected to it using a Wide Area Network.

The MHFCS contract provided for delivery of an initial (core system) operating capability by 2003 with final system acceptance in 2005.The project also includes the supply of upgraded compatible HF communications in some ADF mobile platforms and a follow on five-year initial maintenance and support contract.

The first two phases of the project, network and definition studies, undertaken from 1994 to 1996 led to an expansion of network requirements. The Phase 3 design and implementation of the initial operating capability was awarded to Boeing Australia in December 1997.

Following contract signature a great deal of time and effort was invested in systems engineering analysis and requirements definition to obviate the delays and cost overruns that dogged the JORN project due to inadequate consideration of these issues.

Delays were encountered due to site optimisation and land acquisition but also to complications introduced by rapid changes occuring in defence information technology and communications environments. Upgrading the HF communications systems in mobile platforms, which were themselves undergoing production or upgrade, added another dimension of technical and programming complexity.

Finally, dealing with the disparate requirements of Navy and Air Force users ensured the process took longer than anticipated. In view of the project's integration and test challenges—unexceptional in an undertaking of this size and complexity, the delays in its execution are not considered excessive.

From the beginning, trading off schedule against getting the requirements right was seen by Defence as a prudent strategy that would realise the overall goal of replacing the existing fragmented HF communications systems with a survivable, Australian owned and controlled long range communications network.

The project implementation phase, concerned with the core system and upgrading some of the mobile platforms, covers the period 1998-2004, with an initial operational capability of the core system expected to be achieved by March 2003. The expected in-service date for the complete system is December 2004.

Australian Industry Involvement (AII)

There is significant Australian Industry involvement in this project, including site works and infrastructure, manufacture, installation and testing of 'rosette' configuration antennas and communications equipment, as well as the follow-on support activity.

Hornet Upgrade (Project Air 5376 Ph.2)

Project Overview and Key Issues

Phase two of the Hornet upgrade program will build on the capability enhancements introduced in the first part of the program, and is being conducted in two sub phases.

The overall goal is to improve the aircraft's ability to resist electronic attack (ie the jamming of its radio or other systems), increase its radar detection and targeting ranges, and its ability to identify targets accurately. The upgrade will also give the aircraft greater connectivity to improve its ability to operate with other ADF elements and coalition forces.

The centre piece of phase 2.1 is the installation of a new radar which features better performance, greater reliability, easier maintenance and the flexibility to meet future threats. Also included in phase 2.1 is an encrypted communication capability, upgraded mission computer software and a crash data recorder.

Two of the new Raytheon APG-73 radars were installed in RAAF Hornets in June 2001 to verify and validate the modification, and this activity is reported to have been successful. Productions deliveries of the new radar began in December 2001 and proceeds at the rate of six per month. Work on this aspect of the project will commence this August, some eight months behind the original schedule. The slippage is to accommodate cumulative schedule delays caused by Phase 1 of the Hornet upgrade running eight months late.

Phase 2.2 is contracted to Boeing as of December 2001 and will develop colour cockpit displays along with the integration of a moving map capability, an improved counter measures dispensing system, the Joint Helmet-Mounted Cueing System and a multifunction information distribution system. Prototype and validation/verification activities are scheduled to take place in the United States during 2003. Fleet modification under Phase 2.2 is scheduled to begin in early in 2005 and continue through 2006.

The helmet mounted cueing system essentially allows the pilot to aim a highly manoeuvrable missile at a target by looking in its direction, obviating the need to align the aircraft in the precise direction of the target.

Increased pilot situational awareness combined with a more lethal weapon system are the main benefits from the overall upgrade.

Successful and timely development of the colour displays and successful electro magnetic interference testing of the integrated upgrade package represents this project's greatest outstanding technical risk.

An originally planned Phase 2.3, which comprised an electronic warfare upgrade, has been deferred because of a change in Defence's priorities. An as yet unapproved Phase 3 of this project will address structural refurbishment of the Hornets airframes.

The scope of changes to the Hornet creates new requirements for aircrew training that cannot be met by the existing operational flight training simulators. The acquisition of new systems will be conducted as part of the ground support element of the Hornet upgrade program.

Australian Industry Involvement (AII):

Integration of the various Phase 2 components into the airframes will be carried out in Australia by the RAAF with assistance from Boeing and the US Navy as in phase 1.

Further industry opportunities are likely to arise from the formation of a "Whole-of-Hornet" industry coalition tasked to support the Hornet throughout the remainder of it service life with the RAAF.

Hornet Upgrade (Project Air 5376 Ph.1)

Project Overview and Key Issues

This initial phase of the three part Hornet upgrade program will begin the process of enhancing the RAAF's 71 F/A-18 fighter aircraft to rectify capability deficiencies that limit the effectiveness of the aircraft in its air combat role.

The F/A-18 Hornet is a twin-engined high performance jet fighter of which the RAAF has two versions. The twin seat "B" model is primarily a training aircraft while the single seat "A" model is an air superiority fighter. As the name implies, its role is to defeat enemy fighter aircraft and establish air superiority in an area of operations. Air superiority is crucial to the effective protection of other air, naval or land forces involved in an operation. The RAAF originally acquired 75 Hornets over a three year period beginning in late 1984.

According to the 2000 Defence White Paper, "Air combat is the most important single capability for the Defence of Australia, because control of the air over our territory and maritime approaches is critical to all other types of operation in the defence of Australia".

The Hornet is armed with both air-to-air and air-to-ground missiles, a 20mm rapid firing cannon and can carry a number of aerial bombs; this versatility gives it a strike capability in addition to its air superiority role.

The introduction of later model, more sophisticated fighter aircraft into the region has, over time, eroded the F/A-18's margin of superiority, necessitating either their upgrade or replacement.

Fighter aircraft are very expensive to buy with the current equivalent of the RAAF's Hornets, the later model F/A-18 E/F, costing between $80 and $100 million each. The lead-time for the delivery of new aircraft can be lengthy, up to five years from the date of order.

Achievement of the best possible air superiority capability presents a choice between the cost of new aircraft, and the value for money represented by the cheaper but still significant costs of upgrading older aircraft. Upgrades carry an amount of technical risk presented by the need to integrate newer

technology into older platforms, most notably in the areas of software development and integration, and accurate assessment of the fatigue life of older airframes.

The upgrade path which Australia has embarked upon will see the F/A-18 remain in service until at least 2012, and a substantial number of aircraft are likely to serve for several years after that as their replacements are progressively phased in.

The first phase of this upgrade includes the installation of new radios, upgraded mission computers, a global positioning system and an improved “identify-friend-or-foe” transponder. The ability of the F/A-18 to fire the new advanced medium range air-to-air missile is one of the main benefits from these enhancements.

Phase 1 of this project can be summarised as a successful exercise that is about six months behind on schedule due to a slight underestimation of its scope.

Australian Industry Involvement (AII):

The RAAF, assisted by Boeing and the US Navy is implementing the upgrade
Boeing has been awarded a series of sole source contracts for the engineering, design, some hardware and installation of the systems. The radios and GPS were part of a Foreign Military Sale (FMS) purchase from the US Navy. The mission computers were a direct commercial sale from the manufacturer. Boeing has the role of 'limited' prime for this project with responsibility for ensuring that the interfaces between components are correct and the installation is done properly. Installed performance is the responsibility of the RAAF.

Jindalee Operational Radar Network (JORN - Joint Project 2025)

Project overview and key issues:

The Jindalee Operational Radar Network (JORN) project has suffered well-publicised delays and difficulties but is within reach of delivering a unique and strategically valuable operational capability.

The requirement for accurate, comprehensive surveillance of Australia’s northern approaches is a fundamental part of Australian defence policy. JORN is an over the horizon radar (OTHR) system with a range of 3,000km. Between them, its antenna sites near Laverton, WA, and Longreach, Qld, can detect and track ships and especially aircraft across an arc from the mid-Indian Ocean to the south-west Pacific, and including all of the northern maritime approaches to Australia. Target information from JORN will be fed to the ADF and also to Coastwatch’s Civil Surveillance Program.

The decision to go ahead with JORN was taken after DSTO’s Jindalee technology demonstrator near Alice Springs demonstrated the military value of such a sensor system during the 1970s and ‘80s.

The JORN transmitter emits high frequency (also known as short wave) radar signals which bounce off the ionosphere, high on the edges of earth’s atmosphere, to strike targets a great distance away and then return to the JORN receiver along the same path.

However, the ionosphere is not a stable reflector: JORN therefore relies heavily on its signal processing software and target detection algorithms to correct environmentally-induced anomalies.

In 1990, after evaluating two rival tenders, Defence selected Telstra Corp as prime contractor. The fixed-price contract was worth some $680 million and commissioning was scheduled for July 1997.

The JORN hardware is heroic in scale but the radar sites were completed with little trouble and hardware performance is not an issue, despite the fact the design of the digital receivers was and remains at the leading edge of high frequency radar technology.

The JORN Control Centre (JCC) in Adelaide is also complete – this will control the radar sites remotely and already performs this function successfully for the Jindalee radar, now dubbed Joint Facility Alice Springs (JFAS), which is still a DSTO technology test bed and semi-operational sensor.

The difficulties have arisen with the software development and integration – in 1991 JORN was the biggest defence software development project ever undertaken in the southern hemisphere, and remains one of the largest today. The project began to fall behind schedule rapidly, due principally to software integration problems compounded by poor project management within Telstra and Defence. In February 1997 RLM Systems Pty Ltd, a Tenix-Lockheed Martin joint venture, assumed responsibility for JORN, and later prime contractorship. The fixed-price contract with Telstra, which was novated to RLM Systems, has protected the Commonwealth to some degree – Telstra has paid for RLM to complete the project.

However, the revised goal of delivery in December 2001 has also slipped under the weight of the software development task, which requires over one million lines of new software code to be written and tested.

Since mid-2000 the Longreach and Laverton radar sites have been demonstrated very promising detection and tracking capabilities. The Longreach radar site should be fully capable by late-2002 with Laverton on-line soon after. Final acceptance of JORN is scheduled for June 2003. Some months prior to final acceptance, however, JORN will achieve 'Operational Release' - it will come under Defence's control for user training, live surveillance, and full network testing as part of a formal operational test and evaluation program.

There's high confidence that JORN will meet all of its original performance goals, and even exceed some of them. Once formally commissioned Defence will begin a phased upgrade of JORN processor hardware and software at the JCC.

Australian Industry Involvement (AII):

Nothing like JORN existed anywhere else in the early-1990s and the strategic importance of having such capabilities under direct Australian control drove the decision to go ahead with the project in-country.

RLM Systems has written most of the JORN software and established integration and software support facilities in Melbourne and Adelaide which, in close cooperation with DSTO, will support ongoing software and system development through JORN's life. Apart from the UK-designed transmitter and receiver modules, all of the radar hardware (including the antennas) has been designed and manufactured in Australia.

Lead-In Fighter Capability (Project Air 5367)

Project overview and key issues:

The Lead-In Fighter Project has acquired the Hawk Mk127 as a replacement for the RAAF's ageing Aermacchi MB-326 advanced jet trainers, which retired in 2000. These light, single-engined jets are designed to train pilots to fly fast jets and then train them in the basic skills of air combat prior to operational conversion onto the F/A-18 Hornet and F-111.

The RAAF called tenders in 1995 to replace the Aermacchis. It didn't state the numbers of aircraft it sought, instead specifying an annual rate of effort and required levels of availability and leaving the contenders to estimate how many aircraft would be needed; the contractors would then be responsible for deeper maintenance throughout the life of type of the aircraft and liable for penalties if contractually binding availability targets were not met.

In June 1997 Defence signed an $850 million prime contract with BAE Systems PLC to supply 33 Hawk Mk127s, a single-engined, two-seat advanced trainer powered by the Rolls-Royce Adour Mk871 engine. The first of these arrived in Australia in April 2000 and all have now been delivered.

In service with 17 other air forces, including the United Kingdom, the US Navy, South Korea, Malaysia, Indonesia, Finland and Switzerland, the Hawk has proved a successful bridge between propeller-driven basic trainers such as the PC-9 and modern frontline jets such as the Hornet, Tornado, Harrier and F-15. The Hawk 100-series aircraft are equipped as standard with digital cockpit displays, joystick and throttle-mounted controls and advanced navigation and attack systems to teach modern air combat tactics and weapons delivery.

However, the RAAF ordered an all-new, more advanced Lead-In Fighter (LIF) variant of the Hawk with a cockpit configured to more closely resemble the Hornet, an air to air refuelling capability and other advanced features. The resulting avionics software development and integration task was considerable and led to minor delays in service entry. That these delays were fairly minor can be attributed to the formal partnering agreement established by the contractor and Commonwealth at the start of the project to address and largely eliminate many of the causes of conflict and delay identified in previous Australian defence projects. This approach proved successful and will become a feature of similar projects in the future.

The prime contract included 10 radar emulator pods to simulate attacking aircraft and missiles when training with RAN ships; these are being developed in Australia and should be in service by 2003. The technical challenge is well within Australian industry's scope; delivering the capability within the ceiling of a fixed-price prime contract may be more challenging. Plans for a radar simulator capability for air combat training have been frustrated by the cancellation of the RAAF's air combat training system project whose airborne instrumentation pods were to have been the backbone of the radar simulator.

The aircraft has been successfully introduced into service; the concept of contractor support on this scale is new to both the RAAF and BAE Systems so there have been teething problems, compounded by Australia being launch customer for many new technical features of the aircraft, but these are being resolved. However, maintaining the RAAF's daily aircraft availability target will still require careful management by BAE Systems through the Hawk's life of type.

Australian Industry Involvement (AII):

AII Target: Development of an in-country support capability through participation in development of avionics software, ground crew and pilot training aids and radar emulators for advanced training.
AII Achievement: 21 of the 33 aircraft were assembled at a specially-constructed BAE Systems Australia facility at RAAF Base Williamtown where the aircraft will be maintained through their life of type. The company has delivered the Hawk Tactical Weapon System Trainer (TWST) and maintenance trainers; BAE Systems Australia is now the global source of training aids for the Hawk LIF family of aircraft. Qantas assembled 21 Adour engines and has a non-exclusive licence from Rolls-Royce to seek Adour maintenance work from other Hawk operators worldwide.

Minehunter Coastal (Project Sea 1555)

Project overview and key issues:

The RAN's Minehunter Coastal project has been an under-reported success for both the RAN and Australian industry. The six high-technology ships constructed under this project by ADI Ltd in Newcastle, NSW, have been delivered largely on time, within budget and with their key sensors and combat data systems working close to their potential.

The Huons, and their associated mine warfare command and control facilities, are a critical operational capability for Australia. They provide for the first time since the 1970s a robust counter to the threat of naval mines which are a very cheap and relatively simple way of disrupting Australia's maritime trade which in 2000 was worth about $207 billion a year.

The Huon-class Minehunter Coastal (MHC) is a 52.5-metre, 720 tonne vessel made of glass fibre-reinforced plastic (GFRP) with a crew of 38. It is equipped with a mine hunting sonar which can be lowered to varying depths below the keel to hunt for both tethered mines just below the surface and mines laid on the seabed itself. Once a mine has been detected the MHC deploys one of its two remotely-operated vehicles carrying a TV camera to identify the mine and a demolition charge to destroy it. The Huons also carry a recompression chamber and other equipment to support an embarked clearance diving detachment

The Huon-class ships are based on the successful Italian Gaeta-class design, another derivative of which, the Osprey-class minehunter, is in US Navy service. The Huon-class vessels are the first from the Gaeta family to be equipped with the Thales Underwater Systems Type 2093 variable-depth sonar and BAE Systems Nautis IIM combat system.

Much new software had to be written for these systems, integrated and tested by ADI, making it at least as challenging as the ANZAC Ship project. However the first of class, HMAS Huon, was delivered on time with her mission systems operational. All six minehunters have been launched with the last, HMAS Yarra, due for delivery to the RAN in September or October this year, barely a month behind the original schedule set in 1993.

This project passed the period of greatest risk – combat/mission system software development and integration - quite early on and the delivery of the MHCs and their acceptance into naval service has been largely trouble-free. Operational Test and Evaluation has exposed some areas of marginal system performance as well as highlighting potential well beyond what was contracted for. Although the MHCs are successfully performing operational tasks, formal Acceptance Into Naval Service may not be achieved until late this year, pending resolution of performance issues identified in testing.

Australian Industry Involvement (AII):

The contracted AII target was for 68.7 per cent local content in the construction phase, and the establishment of in-country support capabilities for the platform, sensors and combat system. These targets have been met: the proportion of advanced design work carried out by ADI was the highest of any comparable naval project ever carried out in Australia and local content is estimated at around 76

per cent. The establishment of local construction and support activities means the Navy is already benefiting from reduced repair turn around times and equipment and spares inventory savings. ADI has overseen the construction by Thales, BAE Systems and CEA Technologies of 'Reference Sets' – functional replicas of the, sonar, combat system and communications system, respectively, to enable software support and development through the life of the ships.

A recent study by Tasman Economics, sponsored by the DMO and Australian Industry Group (AIG) Defence Council, has identified significant operational capability and national economic benefits from building these ships in Australia. The study found that the nine-year construction program for the minehunters contributed up to $887 million to Australia's GDP; maintained an average of more than 1,800 full-time equivalent jobs each year throughout Australia; boosted the technology base and management skills of participating companies and stimulated export opportunities for many of them.

Replacement Patrol Boat (Project Sea 1444)

Project overview and key issues:

This project aims to acquire a fleet of simple, lightly armed patrol boats to replace the RAN's existing 15-strong fleet of 42-metre, 220-tonne Fremantle-class patrol boats. These craft, although crewed by the RAN, are the principal maritime patrol and response element of Australia's Civil Surveillance Program, which is managed by Coastwatch.

The Fremantle-class patrol boats, which have a crew of 22, are used to intercept illegal immigrants and fishermen, narcotics smugglers and other law-breakers within Australia's northern maritime approaches. Their crews are required to intercept and board suspicious vessels using Rigid Inflatable Boats (RIB), and the patrol boats themselves frequently have to embark suspects, the ill and infirm, and rescuees as well as towing confiscated boats back to harbour. Neither the Fremantles nor the RPBs are required to operate in the Southern Ocean.

A planned eight-year life of type extension for the Fremantles was cancelled in 1999 because it was found to be more cost-effective simply to replace the boats from 2004. A two-stage Request for Tenders was issued in August 2001. This closed in November 2001 with an estimated nine respondents (Defence has not disclosed how many, nor whom). The RFT also asked bidders to submit proposals for both a traditional direct purchase and a Private Finance Initiative (PFI) arrangement which would see the contractor own and maintain the boats which would be crewed by the RAN.

The project schedule has slipped since early-2000 due partly to White Paper deliberations and to intense scrutiny of the cost/benefits of PFI by both Defence and the Department of Finance and Administration. The Defence Materiel Organisation plans to name a short-list of contenders by mid-2002; it will also announce the preferred Equipment Acquisition Strategy – either direct purchase or PFI. The final source selection decision and a contract signature are due in late-2002 or early-2003. The first of the new boats will enter service in 2004.

At 55m overall the Replacement Patrol Boats (RPB) will be significantly bigger than the Fremantles, but their armament, equipment and crew size will be little different. They are expected to have a service life of 15 years. The RPBs will be armed with the same 25mm gun as the Army's ASLAVs and they will have a relatively simple (by naval standards) sensor and communications suite designed for para-military surveillance.

This tender doesn't specify the number of vessels the RAN wants: it specifies rates of effort and required levels of availability (3,000 sea days a year, overall) and leaves it to the contender to calculate how many vessels of its own design will be required to meet these targets. A one for one replacement of the Fremantles is unlikely.

The technical risks are slight – these boats will be constructed to merchant rules, with a simple sensor suite. Australia's marine industry is more than capable of designing, building and maintaining such boats.

The greatest risk element is probably financial: if the Commonwealth adopts a PFI acquisition strategy the contractor will be liable for designing, building and maintaining a fleet of craft against a contractually-enforceable availability target. Any shortfall in availability will render the contractor liable for penalties. Under- estimating the maintenance requirements for their boats, or the cost of certain spares or maintenance tasks, would expose the contractor to significant levels of risk. Defence must evaluate tender responses carefully because, regardless of any financial penalties it may exact, it could be left with a reduced or hollow capability through selecting a prime contractor who can't sustain the patrol boat fleet.

Australian Industry Involvement (AII):
AII Target: The DMO would prefer the boats to be built in Australia, at an existing facility, with the maximum cost-effective Australian content, including the sensor and communications suite. The essential AII target for both PFI and Direct Purchase options is for the RPBs to be supported, maintained, repaired and modified in Australia by Australian industry.

Air to Surface Stand-off Capability (Project Air 5398)

Project overview and key issues:

This project is acquiring and fielding the AGM-142 medium-range air to surface missile which will allow the RAAF's F-111C strike aircraft to engage targets with great accuracy from 'stand-off' range – that is, from safely outside the range of most targets' own defences, so reducing risks to both aircraft and crew.

The AGM-142 is a 1,363kg rocket-powered missile designed by Israeli armaments company Rafael and manufactured in the US under a joint venture agreement with Lockheed Martin. Already in service with the Israeli Defence Force and the US Air Force, the missile can use either a blast/fragmentation or a penetrating warhead; these are selected and fitted before take-off to suit the target. It has an imaging infra red (IIR) guidance system for day and night operations. It can be used in the 'fire and forget' mode, or steered to its target by the aircraft navigator via a secure data link. Its exact range is classified but is in the tens of kilometres.

Once in service the AGM-142 will significantly increase the reach and flexibility of the F-111C fleet while reducing its vulnerability to modern air defence weapons.

Integration difficulties have delayed service entry until late-2004. The major remaining project task is completion of the hardware and software integration of the missile and data link pod onto the F-111. However, the full impact of recently-discovered F-111 wing fatigue issues is yet to be quantified. Early indications are that some schedule slippage will be incurred as a result of the wing replacement program diverting key personnel during Air 5398 prototyping activities.

Except for the Boeing Harpoon anti-ship missile which arms its F-111Cs, F/A-18 Hornets and P-3C Orions, the RAAF currently has no medium/long-range air-to surface missile capability of any kind. This project was established originally in the mid-1990s to acquire, in successive phases, an armoury of weapons able to attack point targets on land, ships at sea, ground-based radars and communications sites, semi-hardened targets and area targets.

However, ‘requirements creep’ saw proposals emerge for additional capabilities and the project become dangerously complicated with the risk that the RAAF would end up owning and supporting a large, complex and expensive inventory of very diverse weapons. So most of these phases were transferred in 1998 to a separate Follow-On Stand-Off Weapon (FOSOW) project whose year of decision is 2004/05.

Under the surviving phases of the current project, the RAAF has acquired an undisclosed number of AGM-142 air-to-surface missiles to arm its F-111Cs. The first of two separate batches was ordered from the US Air Force in December 1998 under a Federal Military Sales (FMS) agreement. This will be the RAAF’s only stand-off weapon, aside from the Harpoon, until the FOSOW enters service in or after 2008; it will also be cheaper, allowing Harpoon to be reserved for higher-value targets.

One of the biggest challenges for the RAAF has been to modify the F-111C strike aircraft to operate both the AGM-142 and the FOSOW family of weapons. This process has been slow and expensive. To launch and guide the these missiles, the F-111C requires additional wiring to the aircraft hard points as well as integration of the AGM-142’s own software and associated data link pod with the aircraft’s mission computer. This is the first time such a complex integration task has been carried out entirely in Australia. Boeing Australia Ltd is prime contractor for the integration work at Amberley.

Australian Industry Involvement (AII):

There were no AII targets associated with the acquisition of the missiles themselves; however, their integration with the F-111C represents an important investment in the development of indigenous software and aerospace engineering skills necessary to upgrade the F-111C, of which the RAAF is now the sole operator, and maintain and support new capabilities through their life of type.

Strategic Airlift Capability (Project Air 5216)

Project Overview and Key Issues

This project has acquired twelve C-130J-30 Hercules transport aircraft to replace the C-130E fleet operated by the RAAF’s 37 Squadron. The "J" is the latest and most significantly upgraded version of the C-130 series of four-engined propeller driven aircraft that have been manufactured since 1955.

The primary differences between the C-130J and the aircraft it replaces are computerised systems and displays, more powerful and efficient engines, different propellers, greater payload and two less flight crew. The greater payload and smaller crew should result in more efficient operations.

However, technical difficulties led to schedule delays. The six bladed propellers cause a changed airflow over the wings and this has led to problems with the aircraft's stall characteristics, and also resulted in worse icing problems on the tail than occurred with earlier models. In addition, there were difficulties with the integration of the new digital cockpit. The complex and detailed nature of the US Federal Aviation Authority certification process has also contributed to the schedule’s slippage.

In August 1999 a concept of conditional aircraft acceptance was instituted under which the first seven aircraft were originally accepted with the avionics and flight control software in the interim Block 5.1 configuration, which allowed them to be used in simple strategic and administrative line-haul operations. The remaining capability shortfalls being overcome by subsequent post-delivery software upgrades. All twelve aircraft have now been accepted and are currently operating with 37 squadron.

The Block 5.2 upgrade corrected many of the Block 5.1 non-compliance issues and provided additional capability to perform aero-medical evacuation, primarily due to the incorporation of a 'constant altitude mode' for the cabin pressurisation control system.

It is expected that the Block 5.3 upgrade will allow the aircraft to achieve full operational capability, and this was incorporated into the fleet between October and December 2001. Notwithstanding this, while tests and trials have concluded that the aircraft is functionally capable of tactical operations with a two pilot crew, unrestricted approval for tactical roles is still pending the successful completion of the associated role expansion test and evaluation activities.

The remaining limitations are associated with the requirement to complete the role expansion program and include service release for paratrooping, airdrop and night vision goggle operations. Pending the completion of certification investigations, extra maintenance inspections of the engines and composite flaps are required if unsealed airfields are used.

In addition, explosive ordnance that has not yet been cleared against the C-130J's vibration environment is not being carried unless operational exigencies demand it. Also, the exposure of passengers to the zone of the propeller arc is being kept to a minimum pending the completion of investigations into the level of vibration in this zone.

The role expansion activity should be concluded by early-2003, though the clearance for night vision goggle operations will take longer. The objectives of the role expansion program are to develop and approve military role capability, and to develop supporting procedures and checklists.

The progressive upgrade implementation is a good example of contractor and customer working together to overcome the difficulties that characterise developmental projects such as this. The advanced electronics and other mechanical changes incorporated in the "J" model to bring operational savings added a degree of risk to what might otherwise have been a straight forward platform replacement.

The contract between the Commonwealth and Lockheed Martin for these aircraft contained provision for liquidated damages and while this information is commercial-in-confidence, Defence says the Commonwealth recovered the maximum amount possible under the contract.

Australian Industry Involvement (AII):
The contracted AII target was $246.6 million and Defence has indicated that their most recent AII report showed the target would be exceeded. AII activities included the manufacture of the C-130J's advanced carbon fibre composite wing flaps by Hawker de Havilland on a sole-source basis for Lockheed Martin.

Tactical Air Defence Radar System (TADRS — Project Air 5375)

Project overview and key issues

This project is a straightforward off-the-shelf acquisition of new, higher capability, tactical air defence radars to replace those whose economic life of type has expired. Tenders were sought in September 1996 for long range mobile tactical air defence radar systems (TADRS) to replace the three existing 1970s-vintage AN/TPS-43 air defence radars based at Darwin (NT), Amberley (Qld) and Williamtown (NSW) which were then approaching the end of their economic life.

After extensive evaluation of the four original bids, Lockheed Martin, teamed with Tenix Defence Systems and RLM Systems, offering the AN/TPS 117 radar system, was awarded the prime equipment and five year support contracts in August 1998.

The fixed price contract (but with variations for engineering changes) covers the provision of four mobile TADRS with embedded ECCM (electronic counter-counter-measures) capabilities and

communications equipment in a tactical mobile design that meets operational and transport requirements. Due to the inherent capabilities of the radar the initially-planned acquisition of separate electronic radar decoys has been deferred. Separate ESM (Electronic Support Measures) systems are also an acknowledged but as yet unapproved requirement for this project.

The TPS-117 3D tactical air defence radars are amongst the most advanced of their type entering into service and will be the third such system to be acquired by the ADF since WW2, the first being the Plessey Hubcap radar system acquired in the 1950s, followed by the soon to be replaced Westinghouse AN/TPS-43.

The new longer range, L-Band solid-state radars, will accurately detect and track small airborne targets out to 250 nautical miles, transmitting by terrestrial or satellite links high quality data to Control and Reporting Units at Williamtown and Darwin/Tindal. Unlike the present capability the new radars will operate in an electronic warfare (EW) environment with inherent ECCM and decoy capabilities to protect them against pre-emptive strikes by hostile aircraft.

Other important features of the radars include air transportability and ground mobility which enable them to be deployed freely to support the defence of a mobile land force or remote high value fixed installations.

These tactical radars will be a critically important element of Australia's National Air Defence System (NADACS) now being progressively established to provide a multi-layered air defence structure. The outer layer of NADACS is the 3,000km range JORN over the horizon radar network, the next will be established by Wedgetail airborne early warning aircraft able to detect and track airborne targets over 360 degrees and at a range of several hundred kilometres. An inner layer will be provided by other shorter range radars, including those of the Australian Defence Air Traffic System, and the Army's future Ground-Based Air Defence Weapon System. It is inevitable that long range high altitude UAVs and satellite surveillance systems will in the future complement and possibly supercede some of these sensor systems.

The TADR systems will undergo operational test and verification later this year with the first TADR scheduled to be delivered in September 2002 and the fourth by March 2003. Most of the approximately one year delay in delivery has been due to the local development of the Tactical Data System to meet the Air Force's special requirements. Apart from this and other custom system requirements sought by the Air Force, this has been a low risk, non-developmental program. Nevertheless the delay in their introduction into service may have increased the cost to Defence for maintaining the existing radars beyond their economic life.

Australian Industry Involvement (AII):

AII requirements are for the utilisation of local industry capability to provide maintenance and support for the new capability across its life of type. This has been readily achieved with Tenix Defence Systems' appointment as the main through-life support agent as well as the company's involvement in development of the tactical data system and its software in association with RLM Systems. Tenix is also providing communications, power generation equipment and equipment cabins, together with assistance in system integration. Although not intellectually challenging, this AII program is logical and economic because of the small number of systems involved.

P-3C Upgrade Implementation (Project Air 5276)

Project overview and key issues

The RAAF's fleet of P-3C Orion Maritime Patrol Aircraft is undergoing a substantial upgrade which will prolong the operational life of the aircraft (to around 2015) by reducing their operating weight and enhancing their maritime surveillance capability. This is being achieved by replacing outdated and difficult to maintain systems and sensors with modern, much more capable ones. The complex software development task, particularly in the data handling system, has resulted in delays exceeding three years in the delivery of the upgraded aircraft..

The program involves almost a total avionics and mission system upgrade providing the crew with a comprehensive suite of tools to enhance their mission effectiveness and thus the effectiveness of Australia's maritime surveillance. The prime contract includes the development of ground based support equipment including an Operational Mission Simulator (OMS) for crew training, a Systems Engineering Laboratory (SEL) for software maintenance and technical research, and a mission analysis facility for crew briefing/debriefing. As they are upgraded, aircraft in the fleet will be designated AP-3C to reflect their unique Australian capability.

E-Systems (subsequently Raytheon and now L-3 Communications) was selected as preferred tenderer in July 1984 with a fixed price low risk proposal of $US360 million (equivalent to $545 million at the time of the bid). Contract negotiations were protracted with the contract finally signed in January 1995 by which time the Phase 2 contract price had risen to $600 million; Phase 1 was the project definition study and tendering phase.

Two other phases of Air 5276 also contribute to the life extension of the P-3 Orion. These are Phase 2B, which provided for the acquisition and modification of three ex-US Navy P-3B aircraft into TAP-3 (Trainer Aircraft P-3) aircraft (to reduce training hours on the upgraded fleet), and Phase 3, Advanced Flight Simulator. The $37.7 million contract for the simulator was awarded to Wormald Technology, now Thales Simulation & Training, in October 1998. As yet unapproved phases include acquisition of EW self defence systems, enhanced electro-optic detection systems, upgraded data links and finally AP-3C replacement or remanufacture.

Under the contract with Raytheon the first aircraft would undergo prototype modifications and testing at their Greenville, facility in Texas, with the rest of the fleet modified in Australia. The first aircraft was inducted into the program in January 1997 and underwent initial flight trials in the US in May 1999, and after further modification and testing it arrived in Australia in December 2000. The aircraft then underwent an extended period of testing in Avalon, Victoria, as each new and improved version of the software was installed. It wasn't until October 2001 that the prototype aircraft together with the first of the aircraft to be modified in-country, were delivered to the RAAF.

Design and development of this software-intensive system has been a very complex task resulting in significant delays. Final versions of the software were being loaded in May 2002 prior to formal acceptance of the aircraft. Four aircraft have now been delivered, the fifth is expected to be delivered in June 2002 with two more (6 and 7) by the end of this year. It is anticipated that the program will be completed by mid-2004.

Australian Industry Involvement (AII)

Worth some 55% of the contract value, Australian industry content in this program is considerable.

Aircraft modification kits are assembled and installed in the aircraft at Avalon by L-3 Communications Australia which is also responsible for flight and acceptance testing of the aircraft from 02 onwards. BAE Systems Australia is undertaking the design, systems integration and development of the OMS, providing environmental simulation suites and installing the SEL in the Integrated Test & Training Facility at RAAF Edinburgh. The wiring looms are being manufactured locally as are some acoustic components.

SECTION 6 – HISTORICAL AND COMPARATIVE DATA

Table 6.1: Defence expenditure for selected nations 1985 & 2000

Table 6.2: Historical Defence uniformed and civilian staff numbers at 30 June

Table 6.3: Total Permanent ADF Officer and Other Rank Numbers

Table 6.4: Historical Separations and Enlistments

Table 6.1: Defence expenditure for selected nations 1985 & 2000

COUNTRY	Defence Expenditure Million US$		US$ per capita		% of GDP		Numbers in Armed Forces 1000's	
	1985	**2000**	**1985**	**2000**	**1985**	**2000**	**1985**	**2000**
Australia	8068	6952	512	368	3.4	1.9	70.4	50.6
Canada	11597	7456	457	239	2.2	1.2	83	59.1
China	29414	41167	28	32	7.9	5.3	3900	2810
Indonesia	3469	1493	21	7	2.8	1	278	297
Malaysia	2614	2708	168	122	5.6	3.1	110	96
New Zealand	957	788	294	204	2.9	1.5	12.4	9.2
Phillippines	702	1497	13	20	1.4	1.9	115	106
Singapore	1760	1497	13	20	1.4	1.9	115	106
Taiwan	9541	17248	492	785	6.7	4.9	55	60.5
Thailand	2777	2464	54	40	5	2	235	301
Vietnam	3,556	931	58	12	19.4	3	1027	484
United Kingdom	47,240	33,894	835	576	5.2	2.4	334	212
United States	382548	294695	1599	1059	6.5	3	2151	1365

Source: The Military Balance 2001-2002, International Institute for Strategic Studies

TABLE 6.2: HISTORICAL DEFENCE UNIFORMED AND CIVILIAN STAFF NUMBERS AT 30 JUNE

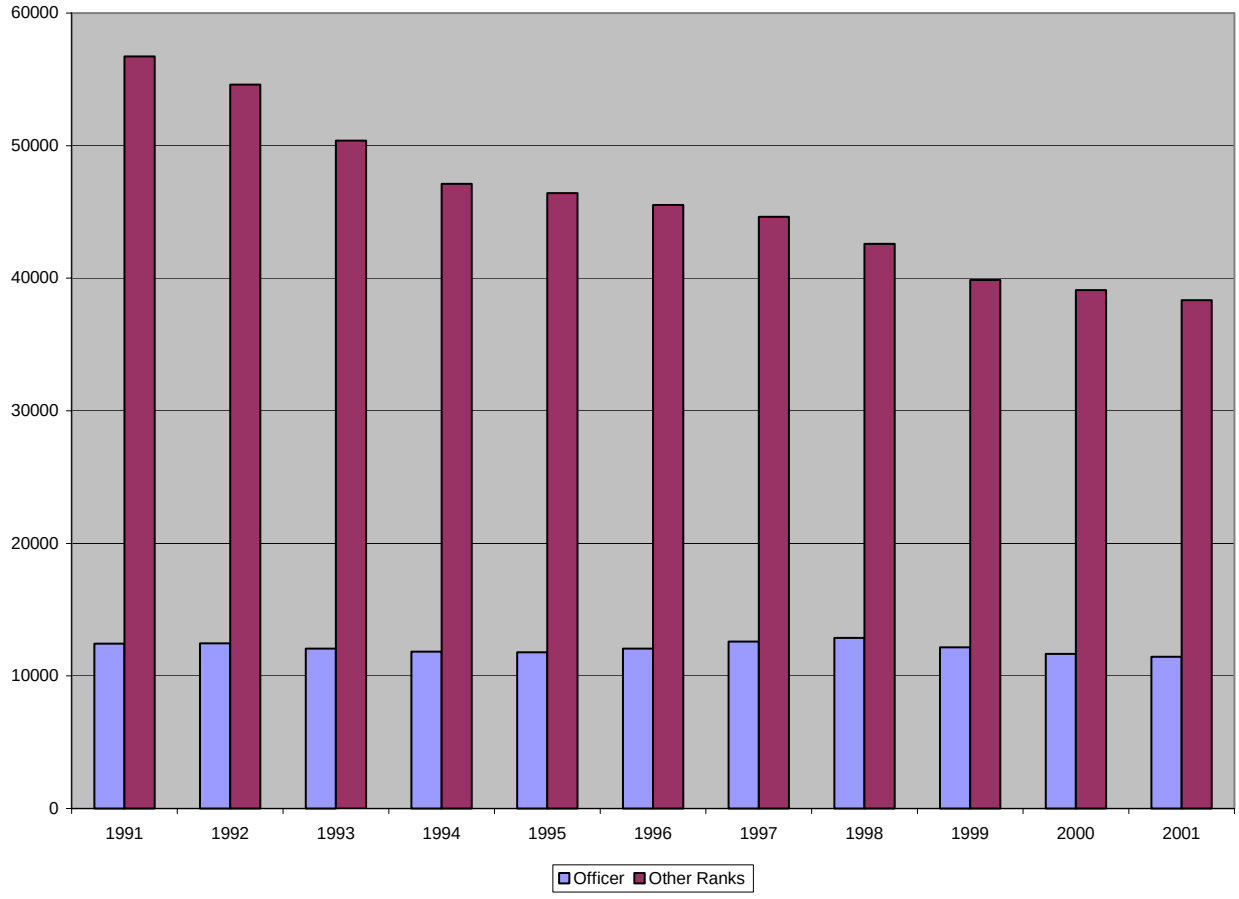
Year (June)	Navy		Army		Air Force		Perm. Forces		Active Reserve	Civilian Staff
	Officer	Sailors	Officer	Other Ranks	Officer	Airmen	Officer	Other Ranks		
1991	3000	12,894	5261	25,882	4165	17,956	12,426	56,732	29,670	25,006
1992	2881	12,514	5374	24,783	4190	17,312	12,445	54,609	29,112	23,832
1993	2944	12,097	5134	22,920	3985	15,360	12,063	50,377	28,997	22,105
1994	2928	11,850	5016	21,331	3879	13,928	11,823	47,109	28,168	21,236
1995	2912	11,767	5012	20,997	3851	13,649	11,775	46,413	27,532	20,767
1996	3033	11,371	5092	20,872	3938	13,274	12,063	45,517	28,508	20,372
1997	3183	11,518	5202	20,703	4199	12,431	12,584	44,632	31,855	19,115
1998	3109	11,141	5204	19,736	4276	11,708	12,859	42,585	27,701	17,943
1999	2921	10,478	5119	18,787	4115	10,599	12,155	39,864	24,848	17,191
2000	2716	9,811	5062	19,102	3881	10,183	11,659	39,096	21,346	16,295
2001	2658	9,605	4977	19,383	3801	9,339	11,436	38,327	20,334	17,006

Notes: Officers includes officer cadets

Sailors/Other Ranks/Airmen includes trainees

Ready Reserves included in Reserve totals

Table 6.3: Total Permanent ADF Officer and Other Rank Numbers



Source: Defence Annual Reports 1991-2001

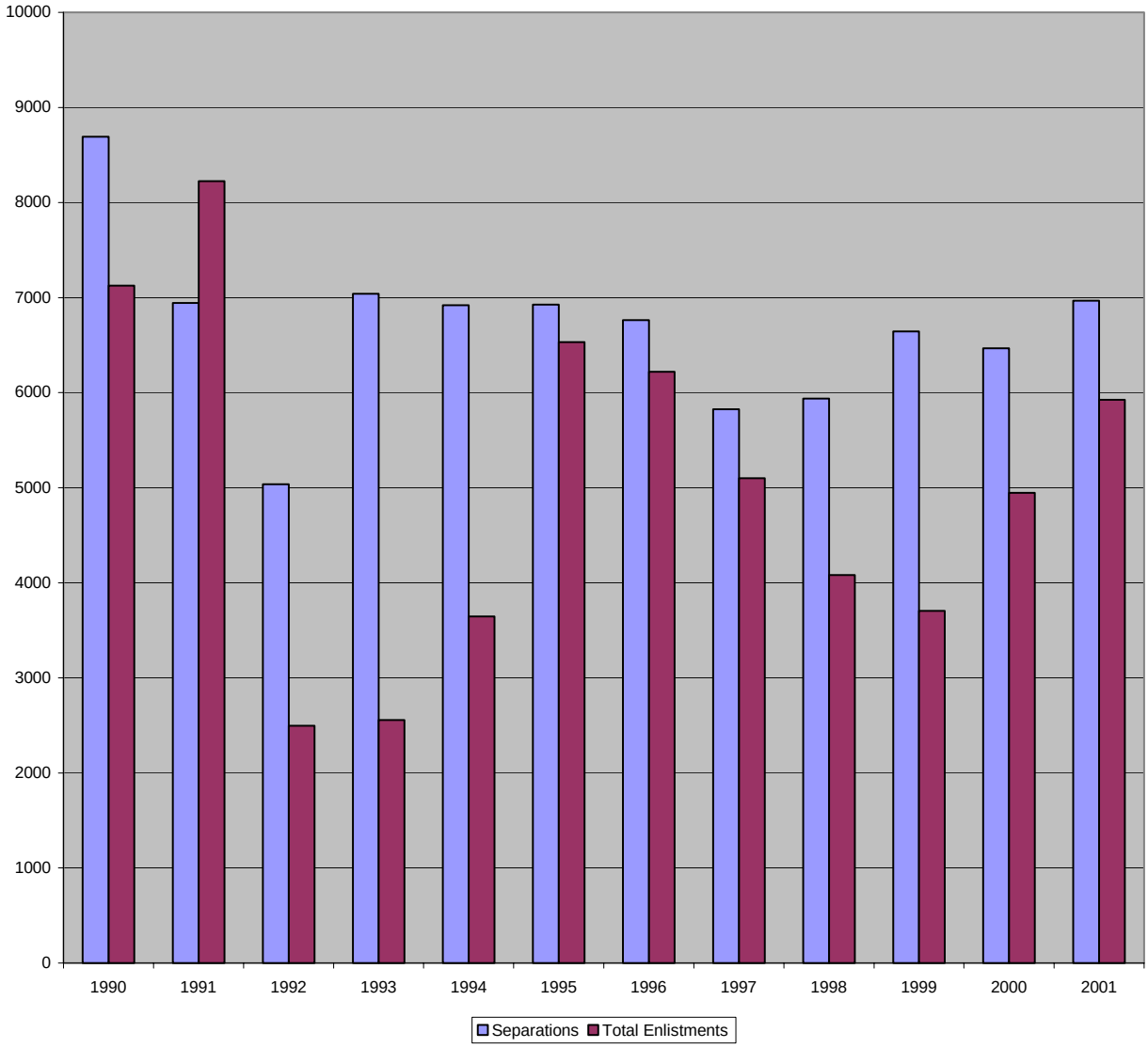


Table 6.4: Historical Separations and Enlistments

Source: Defence Annual Reports 1991-2001

SECTION 7

ANALYSIS OF RECENT FINANCIAL PERFORMANCE & TRENDS

The 2002-03 Defence budget is the fourth budget prepared on the basis of the output accrual framework. This Section looks back over the last three budgets and actual results and attempts to examine Defence's financial performance over that period and draw implications for the 2002–03 budget.

This is a very difficult task for a number of reasons. To begin with, the actual results for 2001–02 are not yet available and the results for 1999–2000 and 2000–01 (from the annual reports) do not disclose all the detail needed to fully explore the issues. In addition, a $900 million accounting 'reclassification' in the cash flow in 1999–2000 and a $1 billion reversal of assets previously expensed in 2001–02 cloud the picture. Also, both inventory consumption and spending are incompletely reported in recent budget and financial reports. This is disappointing given that Defence holds more than $3 billion of inventory.

The East Timor operation and the resulting Special Appropriation complicates the financial accounts in 1999–2000. A further difficulty is the introduction of GST in 2000–01 that skews the cash flow statement. Consequently, the analysis and conclusions are presented on a 'best efforts' basis. We discuss how the clarity of financial information might be improved in Section 4.

Net Operating Surpluses in 1999–2000 and 2000–01

Defence achieved operating surpluses (after the capital use charge and before asset related adjustments) of $717 million and $1416 million in 1999–2000 and 2000–01 respectively. These included significant non-cash asset-related and other adjustments that we estimate shift the result to around $945 million and $900 million respectively. However, cash holdings were only $138 million and $58 million respectively. So what's going on?

Quite simply, in Defence, an operating surplus does not necessarily correspond to cash on hand. Broadly speaking, it appears that in both 1999–2000 and 2000–01 Defence failed to achieve budgeted levels of expenses like inventory consumption (a non-cash item), but nevertheless continued to purchase inventory (a cash item). In a sense, part of the output price was used to 'stock the warehouse' rather than deliver the service. In 1999–2000 we estimate that inventory purchases (cash) exceeded consumption (non-cash) by around $300 million.

The other way an operating surplus can fail to deliver a cash surplus is if money is used for unbudgeted capital investment or to offset a drop in capital receipts. In 2000–01 it appears that around $270 million of output appropriation was used to cover a shortfall in capital receipts and another $320 million was spent on unbudgeted investment.

It appears that in both years a combination of all these mechanisms resulted in a large operating surplus without leaving much cash behind. This begs the question of whether the price of the Defence outputs is right and/or whether the split between capital and output appropriations is correct.

Interestingly, while suppliers expenses (with includes inventory) have tended to be underspent, personnel expenses have tended to be overspent.

Is the price right?

Recent financial performance has not delivered planned results. In 1999–2000 and 2000–01 large operating surpluses occurred after taking account of asset corrections. And in 2001–02 an additional $340 million of cash has accumulated beyond the original estimate. There may be some way to account for these changes on the basis of altered activity levels or other deliberate actions, but we have not been able to find such an explanation in public data. The impression gained is that the financial results are an emergent rather than managed outcome.

On the basis of what is known, it appears possible that the first two accrual Defence budgets incorrectly split funding between operating revenues and capital investment, and no correction appears to have been made since.

From the information available we are unable to see if this accords with changed activity.

It is not possible to be more definitive on the basis of public data. A detailed review of Defence funding would be necessary to sort out the issue.

Assets and liabilities in 1999–2000 and 2000–01

Defence underestimated its net assets by $3.89 billion in 1999–2000 and $3.12 billion in 2000–01. These increases are due in part to large revaluations and assets first found. Defence's ability to account for its assets has been an ongoing concern to the ANAO as reflected in successive audits of the financial statements. A joint Defence – ANAO analysis (ANAO Audit No. 21-tabled 9 December 1999) estimated the dollar uncertainty in the 2000–01 financial statements at $220 million. Improvements in management information systems and business processes are critical to improved asset management. Without this, the potential benefits of accrual accounting cannot be fully exploited. Defence understands this and are making significant investments in improved management information systems to fix the problem.

Cash flow in 1999–2000 and 2000–01

Large differences between planned and achieved cash flows have arisen in recent years although this is difficult to track because of various 'accounting' corrections. Nevertheless, it is possible to discern the movements between output price to capital discussed above.

What does this imply for 2001–02 and 2002–03?

In the past, Defence has used all of its cash leaving little in reserve to cover liabilities. However, in 2001–02 Defence predicts a cash surplus of $442 million. This will take money in the bank from $57 million to $500 million in only twelve months, a rate of $1.2 million per day. The initial budget estimate was that only $77 million would

accumulate over 2001–02. Cash in the bank is further projected to rise above three-quarters of a billion dollars in 2005–06.

It is important to note that cash is able to accumulate in the bank from appropriations for a number of reasons including for the future payment of some current expenses eg employee entitlements and creditors. Another way cash can increase is through generating expenses (stripping the warehouse) and then keeping the cash from appropriation. For example, the Budgeted Statement of Financial Position [PBS Table 3.2] shows a slow decline in inventory assets of about $285 million over four years while the cash at bank rises by $162 million in the Budgeted Statement of Cash Flows [PBS Table 3.3]. Quite literally, in this instance Defence is able to generate cash by running down stocks. That is not to say that this is a problem, there are many good reasons to reduce inventory holdings down to an optimum level.

How much should Defence keep in the Bank?

Under the accrual output budget framework, agencies are able to accumulate in the bank output appropriation funding for non cash expenses such as depreciation and employee entitlements. These items will require payment in the future. Given the size to the numbers it is conceivable that Defence would accumulate large cash holdings. The question is what is an appropriate amount needs to be considered by Government given that Defence also receives large equity injections. The owners role (Government) here, may also involve withdrawing capital (cash) and returning it, at the time of need, rather than the cash accumulating within a single agency.

For 2001–02 Defence is predicting an operating surplus after capital use charge of $12 million. It will be interesting to see the actual result given the high surpluses achieved in previous years. Ironically, this may be made more difficult to achieve by the war against terror. The Minister for Finance's press statement on the February Commonwealth accounts said that Defence's suppliers expenses had *slowed* due to reduced inventory consumption in preparation for newly emerging operations.

Unfortunately, prudent marshalling of resources for military operations may not deliver previously planned financial outcomes. Of course, in the current environment, it is appropriate that the former must take precedence over the later. You cannot plan the build up and execution of operations to coincide with the financial year. Having said that, it is important to keep in mind that the current operations only involve less than 10% of the ADF's combat and combat support force.

Key changes in 2002–03 from the previous year include an additional $600 million in capital expenditure reflecting the impact of Defence Capability Plan funding. Employee expenses are increasing by 6% while personnel numbers are only increased by around 1%. However, this is probably prudent given the recent overspends on employees. In contrast, suppliers expenses have been left static while depreciation has risen slightly. However, in the absence of information on planned activity levels, it is impossible to determine whether previous underspends of suppliers expenses will be corrected. (Chapter 4 discusses options for reporting activity levels as part of comprehensive performance information.)

IN-DEPTH ANALYSIS

Recent financial performance

This section provides an in-depth analysis of financial performance extracted from financial statements. Some understanding of accounting is essential.

Annex A contains data on variances for actual achievement for 1999–2000 and 2000–01, projected achievement for 2002 and the budget estimate for 2002–03. Data has been sourced from PBS, PAES and Annual Reports for the various years.

Recent financial performance – analysis of 1999–2000

The first actual accrual output budgeted figures for Defence appeared in 1999–2000 and 2000. In both years there were large differences between the actual and budgeted results including significant operating surpluses.

The operating surpluses (excess of output appropriation and other revenues less expenses) however, did not result in an accumulation of cash in the bank. Cash holding in Defence were only $138 million and $58 million in 1999–2000 and 2000–01 respectively. No funds were returned to the government during this period.

The surpluses adjusted for capital use charge and major asset adjustments appear in Table 7.1. It is useful to subtract these adjustments from the surplus as their impact can distort the extent that the price of outputs actually exceeds expected expenses. After these adjustments it shows that the surplus of price of outputs and revenues exceeded expenses by $945 million in 1999–2000 and $900 million in 2000–01.

Table 7.1 Operating surplus after asset adjustments and capital use charge (all figures are in '000s)

	AES 1999–2000	Actual 1999–2000	Variance 1999–2000	AES 2000–01	Actual 2000–01	Variance 2000–01
Surplus before CUC	4 536 083	5 316 468	780 385	5 003 930	6 398 619	1 394 689
Less: CUC	4 536 083	4 599 955	63 872	5 003 930	4 982 388	21 542
Surplus after CUC	–	716 513	716 513	–	1 416 231	1 416 231
Net asset related adjustments (non–cash)	–	– 227 903	227 903	–226 920	– 516 282	743 202
Surplus after net asset adjustments	–	**944 416**	944 416	–226 920	**899 949**	673 029

The results in both years were affected by large asset adjustments. The following table outlines the major asset adjustments that are of a non-cash nature. These directly effect the value of assets held on the balance sheet. This includes both corrections eg reversals of previous asset write downs and more normal asset related transaction such as write-offs eg increases to the provision for obsolescence. Note that except for $100 million asset write-down, no allowance was made for asset related adjustments in the 2002–03 budget.

Table 7.2 Asset adjustments (all figures are in 000s)

	AES 1999–2000	Actual 1999–2000	Variance 1999–2000	AES 2000–01	Actual 2000–01	Variance 2000–01
Revenues						
Reversals of previous asset write-downs	–	250 270	250 270	–	1 103 459[1]	1 103 459
Assets recognised due to change in accounting policy	–	–	–	–	511 693[2]	511 693
Expenses						
Write-downs	–	–478 173	–478 173	–226 920	–1 098 870	–871 950
Net asset adjustments	–	**–227 903**	–227 903	–226 920	**516 282**	743 202

1 In the actual results for 1999–2000 an amount of $1 274 258 for assets adjustments reported in this category were recorded as an adjustment to opening accumulated results (under the transitional provisions of AAS29). In 2000–01 these adjustments were reported as revenues.

2 This amount reflects the adjustments for the increase in threshold for which expenditure is recognised as an asset.

3 Asset revaluations are recorded as reserves in equity and do not appear in this table.

If there was little cash left, how did this arise?

The surplus after deducting asset adjustments may not necessarily result in the same amount of unspent cash remaining from the output appropriation for a number of reasons. For Defence it would appear that the cash available from the surplus (being the amount of cash related expenses which have not been incurred or excess other revenues) has been used to fund various balance sheet items including inventories and property, plant and equipment. These items may have:

- been budgeted for, eg inventory purchases despite inventory consumption not being achieved;
- not budgeted for, eg additional capital expenditure such as in 2000–01 when capital expenditure was $320 million over budget (refer Annex A.5 Capital Budget Statement); or
- used to fund a shortfall in capital receipts. In 2000–01 output appropriation cash was required to fund a shortfall in capital receipts of $268 million.

It would appear that no cash arising from the surplus output appropriation was returned as a dividend to the government or held at year-end as cash.

In 1999–2000 inventory consumption was underachieved by $392 million (based on 1999–2000 estimated actual in the PBS 2000–01 – including East Timor), yet the amount spent on inventory was $982 million (p.27 2000 Annual Report).

It is difficult to examine inventory as the PBS and Annual Reports do not separate cash spent on inventories. Recent PBS documents do not provide inventory consumption separately from suppliers. It is difficult to establish what is spent on inventory consumption (or expenses associated with its usage) through the figures provided in the actual and budgeted financial statements. This should be more transparent given the size of inventory ($3238 million; 2001actuals), consumption expense of $574 million (2001 actual suppliers) and spend on inventory ($982 million; 2000 last reported actual).

In 2000–01 Annex A.5 Capital Budget Statement indicates that capital expenditure was funded by an increase in operating receipts (from the surplus) of $589 million, largely arising from under-achieved expenses such as suppliers.

What are the major variances that drove the operating result?

Revenue and expenses

The major variances between budget and actual results arise through different accounting policies adopted between budget and actual and underlying variances due to different activity levels. The variances are shown at Annex A. Variances against budget for 1999–2000 are limited due to the East Timor Funding not appearing in the 1999–2000 Revised Estimates for either revenue or expenses. The estimated actual for 1999–2000 provided in the PBS 2000–01 provides some indication of the level of expected expenses for 1999–2000 and have been provided in the Table 7.3.

From Table 7.3 in 1999–2000:

- actual results exceeded AES employee expenses by $192 million;
- actual results for employee expenses were less than estimated actuals (which incorporated East Timor) in the 2000–01 PBS by $126 million;
- actual results were less than AES suppliers by $374 million; and
- actual results were less than estimated actual suppliers in the 2000–01 PBS (which incorporated East Timor) by $630 million.

Table 7.3 Employee and Suppliers Expenses

Item	1999–2000 AES ($m) a	1999–2000 Estimated Actual – 2000–01 PBS ($m) b	1999–2000 Actuals ($m) c	AES–Actuals Variance ($m) a–c	Est Actuals–Actuals Variance ($m) b–c
Employee	4772	5090	4964	–192	126
Suppliers	4221	4477	3847	374	630

From Annex A.2 for 2000–01:

- actual result exceeded revised estimate for employees by $282 million (2000–01).
- actual results were less than revised estimate for suppliers by $918 million (2000–01). This included in 2000–01 an under-achievement of inventory consumption of $340 million and suppliers of $578 million.

What does this indicate?

The achievement of the surplus operating results and consistent variances indicates that:

- the split between output and equity appropriation needs to be more robustly constructed to reflect an appropriate output price based on achievable expenses, eg

Revised Estimate for 2001–02 for suppliers (including inventory consumption) at $4664 million exceeds the actual achieved in 2001 by $727 million. Projected 2001–02 indicates budgeted level of suppliers expense will be largely achieved ($4652 million) and the 2002–03 budget estimate figure reflects a similar high level of expenditure. Is this realistic given past performance; and/or

- Defence might be over-funded in output appropriation and therefore should return a dividend rather than apply these funds to unbudgeted capital spend. With projected cash of $500 million, Defence would appear to have the capacity to do this.
- Recurring asset corrections distort the ability of the user to understand the underlying achievement of the operating result.

Balance sheet variances

Assets and liabilities

As Table 7.4 indicates net assets increased in 2000 and 2001 by the following:

Table 7.4 Asset Estimated and Actual

Year	Net asset amount ($b)	Asset amount ($b)	Liability amount ($b)
1999–2000 Actual	41.699	44.822	3.122
1999–2000 Revised Estimate	37.800	40.694	2.893
1999–2000 Net Asset Variance	3.899	4.128	.229
2000–01 Actual	44.270	48.225	3.955
2000–01 Revised Estimate	41.146	44.120	2.974
2000–01 Net Asset Variance	3.124	4.105	.981
2000–01 Actual	44.270	48.225	3.955
1999–2000 Actual	41.699	44.822	3.122
2000–01 Net Asset Variance	2.571	3.403	.833
Capital use charge effect (11%)	.282		

Actual increases in net assets in both years were largely due to the growth in property, plant and equipment from both asset purchases, assets first found and revaluation increments and reduced by the depreciation and asset write-offs. Expenditure exceeded the capital budget (AES) by $1.090 billion in 2000 (distorted by a change in accounting policy which saw inventories reported as capital in the actual cash flow) and $320 million in 2001 (refer Annex A.4)

Actual asset increases between 2000 and 2001 (in Table 2.3.5) of $3.403 billion very broadly comprises:

- **non-cash increases** of assets first found ($1.103 billion), assets reinstated through the change in asset threshold ($.512 billion), revaluation increment ($1.114 billion), and recognition of assets subject to a finance lease ($.401 billion);
- **non-cash decreases** due to depreciation $2.235 billion and write-down of assets of $1.099 billion;

- **additions** of $3.506 billion; and
- **other adjustments** $102 million.

(Source: 2001 Annual Report)

Cash Flow (refer Annex A.4)

The cash flows in 2000 and 2001 show small cash balances at year-end. The relatively small cash flow illustrates that Defence used almost all its output appropriation to fund operating expenses and capital, leaving no reserves to meet other liabilities such as employees. (This would appear to be remedied in subsequent years although the appropriate levels of cash holdings are still subject to some debate).

In 1999–2000 variances from budget of unused operating cash surpluses of $1254 million were used to fund asset purchases of $1092 million. $982 million (p.27, 2000 Annual Report) of this was due to a reclassification of inventory purchases from operating to investing cash flows. In 2001 variances of net operating cash surpluses of $598 million were used in part to fund asset purchases following a failure to sell assets. These variances agree with the variances shown in the Capital Budget variance table (Annex A.5).

2001–02 projected result

The 2001–02 Projected Result in the 2002–03 PBS largely reflects the projection provided in the 2001–02 AES. Cash has increased by $186 million through a reduction in projected employee costs of the same amount. Defence is predicting a small surplus after CUC of $12 million. The achievement of such a small predicted surplus will be interesting to watch given the large surpluses achieved in previous years. It would seem that predicted suppliers expense is still expected to be achieved despite the figure being $715 million higher than the actual incurred in 2001. Depreciation for the revised and projected result is still the same ($2678 million) despite a fall in property, plant and equipment assets caused through increased write-off of assets of $186 million.

Defence is also predicting the achievement of sale of property proceeds of $199 million having moved estimated property sales of $823 million to 2002–03. Large budgeted property sales were not achieved in 2001, and were re-allocated from the 2002 budget at AES to be achieved in 2002–03.

2001–02 projected result net assets are $604 million higher than the actual 2001 results for net assets with cash having increased by $442 million.

Financial analysis 2002–03

Details of changes to Government funding from the previous forward estimate (as at 2001–02 AES) amount to an increase of $742.4 million. Explanations to support the increase to the total funding are at PBS p.14. This will be appropriated through equity injections of $207.8 million [PBS p.72] and price of outputs of $534.6 million [PBS p.71]. Detailed analysis is at Chapter 1 Overview. Importantly, although not fully visible in the PBS 2002–03, the Government has delivered on funding of the White-

Paper of $1039 million which was built into the 2002–03 forward estimate base funding at 2001–02 Budget Estimates.

After allowing for an increase in capital use charge of $296.2 million (which is returned to Government), net appropriation increased by only $446.2 million, of which changes in price and foreign exchange fluctuations accounts for $295.8 million. This leaves in effect only $150 million for other increases in funding. Despite this small increase in funding Defence will increase cash holdings by $186 million. This is against a background of no increases in liabilities such as employee entitlements or creditors, despite movements in the underlying suppliers and employee expenses, and depreciation having increased by only $15 million.

The emerging issue from this analysis that really needs to be addressed is how much cash is enough for Defence to be adequately capitalised to meet funding needs, against a background of ensuring that the Department is not receiving equity injections when stocks of cash should be used. For example, in 2002–03 Defence has received an increased equity injection of $207 million whilst at the same time increasing cash balances by $186 million.

The reason for major variations between revised and Budgeted 2002–03 appear in PBS Note 2 – Budgeted Statements of Financial Performance – Variations in Estimates p.71 and are not repeated here.

The major changes between the 2002–03 Budget Estimate and the 2001–02 Projected Result have been summarised in Table 7.5.

Table 7.5 Comparison of 2001-02 projected and 2002-03 budget esimates

	2001-02 projected result $'000s	2002–03 budget estimate $'000s	Variance $'000s
Output Appropriation (net of CUC)	13 087 497	13 179 257	91 760
Equity Injection	754 175	1 090 415	336 240
Employee expenses	5 541 365	5 874 644	333 279
Suppliers expense	4 652 751	4 675 891	23 140
Depreciation	2 678 112	2 782 814	104 702
Cash at Bank	500 000	609 807	109 807
Net Assets	44 874 077	45 409 889	535 812
Capital expenditure	3 469 155	4 072 382	603 227

Whilst the variances appear reasonable based on 2001–02 projected result, the challenge will be to gain confidence that the underlying 2002–03 Budget Estimates have been re-calibrated to take account of large under achievement of items such as suppliers expense in 2000 and 2001.

Interestingly, write-offs have been reduced to $100 million, this is very low based on past achievement and reflects that Defence have indicated that the asset accounting issues have been remedied.

Trend analysis

This Section outlines the trends that appear across key financial figures extracted from the PBS budgeted financial statements (p.59) and the 1999–2000 and 2000–01 actual results obtained from the Defence Annual Reports. Overall there exists very few solid trends, in part, this has been due to the impact of the White Paper increases in funding from 2001–02 forward.

The following provides a brief discussion of the trends displayed in Annex B.

Appropriations at A–E (which includes capital use charge funding)

Appropriation from Government shown at D indicates a small percentage increase. 2001–02 increase is affected by the introduction of the White Paper Funding. Government appropriations net of CUC and capital withdrawal (contingent upon the delivery of the asset sales program) results in a decrease of 1.16% in 2002–03 because of the size of the proposed capital withdrawal in 2002–03 ($660 million) which decreases to $88.9 million and $147.8 million in the next forward estimate years.

Employee and supplier expenses (F and G)

Employee expenses (Item F) continue to increase constantly across the budget estimate and the forward years, with a 6.01% increase in 2002–03. Suppliers expenses (Item G) (which includes inventory consumption) shows a small increase in 2002–03 with a decline in 2003–04 by 2.09% on the previous year. The 2002–03 reflects a budget measure reducing administrative expenses by $97 million.

Assets and liabilities (I, K, L and M)

Cash (Item I) Defence's level of cash holdings increases from $137 million in 1999–2000 to $772 million in 2005–06. This is a large cash holding which has built up in the accrual framework due to funding for depreciation and accruals such as long service leave. Defence did not keep any funding in the early years of the accrual output budget framework despite incurring accrual expenses which would result in future payments eg employee entitlements.

Inventories (Item K) show a steady decline from 2002–03 Budget Estimate through the forward estimates. This indicates that inventory consumption plus inventory write-offs (both figures not provided in the PBS) will be higher than purchase of inventory (again not provided in the PBS) in those years. This implies there will be a run down of stock. Again without full disclosure of inventory consumption and purchases analysis is difficult.

Employee liabilities (Item L) show a steady increase of 4% across the 2002–03 budget estimate and forward estimates. This constant increase in not matched by a similar constant increase in employee expenses.

Property plant and equipment including asset value (I), purchases (M) and depreciation (G)

Depreciation (Item H) does not show any consistency, although the large increases in 2000–01 and 2001–02 may be fuelled by the effect of large asset adjustments appearing opening balance sheets. A fall in depreciation is unlikely to occur in 2005–06 given the increase in the underlying assets (Item J) of 3.86%.

It can be difficult to draw direct comparisons between depreciation and property, plant and equipment due to the effect that specialist military equipment still under construction can have as it is not depreciated. Assets under construction were reported at $10 billion in the 2001 Defence Annual Report, p.181 and represents a third of the value of assets. Such a significant item as assets under construction should also be provided in the PBS. This way, if projects are delayed the financial impact of the delay can be easily seen, as the assets under construction value for actual results will exceed the budget figure. Comparisons between asset values and deprecation can also be made for analytical purposes.

No trend exists on capital expenditure with a 17.39% increase in 2002–03 falling away to negative in 2004–05.

ANNEX A. OPERATION RESULT VARIANCE

Annex A.1 Analysis of financial performance (all numbers in $'000s)														
	1999–00	1999–00	1999–00	1999–00	2000–01	2000–01	2000–01	2000–01	2001–02	2001–02	2001–02	2002–03	2002–03	2002–03
	Budget	Revised	Actual	Variance	Budget	Revised	Actual	Variance	Budget	Revised	Projected Result	Revised	Budget Est	Variance
		a	b	b–a		c	d	d–c				e	f	f–e
Surplus before CUC	4,463,092	4,536,083	5,316,468	780,385	4,646,198	5,003,930	6,398,619	1,394,689	4,771,747	4,771,747	4,783,747	4,759,829	5,056,094	296,265
CUC	4,463,092	4,536,083	4,599,955	–63,872	4,646,198	5,003,930	4,982,388	–21,542	4,771,747	4,771,747	4,771,747	4,759,829	5,056,094	296,265
Operating Surplus	0	0	716,513	716,513	0	0	1,416,231	1,416,231	0	0	12,000	0	0	0
Add back: Net non–cash adjustments asset related	0	0	227,903	227,903	0	226,920	–516,282	–743,202	168,531	0	0	100,000	100,000	0
Operating asset adjustments Surplus after net	0	0	944,416	944,416	0	226,920	899,949	673,029	168,531	0	0	100,000	100,000	0

Annex A.2 Statement of financial performance (all numbers in $'000s)														
	1999–00	1999–00	1999–00	1999–00	2000–01	2000–01	2000–01	2000–01	2001–02	2001–02	2001–02	2002–03	2002–03	2002–03
	Budget	Revised	Actual	Variance	Budget	Revised	Actual	Variance	Budget	Revised	Projected Result	Revised	Budget Est	Variance
		a	b	b–a		c	d	d–c				e	f	f–e
Revenue														
Output Approx	14,277,978	15,025,706	15,025,706	0	16,104,670	17,113,920	17,113,920	0	17,515,619	17,859,244	17,859,244	17,700,714	18,235,351	534,637
ET Approx	0	0	607,467	607,467	0	0	0	0	0	0	0	0	0	0
Previous period appropriation	0	0	179,354	179,354	0	0	0	0	0	0	0	0	0	0
Total Gross Approx	14,277,978	15,025,706	15,812,527	786,821	16,104,670	17,113,920	17,113,920	0	17,515,619	17,859,244	17,859,244	17,700,714	18,235,351	534,637
Less CUC Expense	4,463,092	4,536,083	4,599,955	63,872	4,646,198	5,003,930	4,982,388	–21,542	4,771,747	4,771,747	4,771,747	4,759,829	5,056,094	534,637
Approx net of CUC	9,814,886	10,489,623	11,212,572	722,949	11,458,472	12,109,990	12,131,532	21,542	12,743,872	13,087,497	13,087,497	12,940,885	13,179,257	238,372
Net gain on sale	0	0	3,675	3,675	34,082	33,082	0	–33,082	8,346	0	0	0	0	0
Write Back of Assets	0	0	250,270	250,270	0	0	1,103,459	1,103,459	0	0	0	0	0	0
Assets recognised for first time	0	0	0	0	0	0	511,693	511,693	0	0	0	0	0	0
Other Revenue	309,857	302,672	373,133	70,461	311,313	360,191	408,710	48,519	316,222	277,591	277,591	288,163	287,105	–1,058
Total Revenue	10,124,743	10,792,295	11,839,650	1,047,355	11,803,867	12,503,263	14,155,394	1,652,131	13,068,440	13,365,088	13,365,088	13,229,048	13,466,362	237,314
Expenses								0						
Employees	4,414,181	4,772,475	4,964,902	192,427	5,042,269	5,102,913	5,385,401	282,488	5,474,495	5,727,541	5,541,365	5,843,913	5,874,644	30,731
Suppliers (net of inventory consumption until 2001–02 budget)	3,147,583	3,324,855	3,228,847	–96,008	3,698,666	3,941,793	3,363,247	–578,546	4,813,113	4,664,751	4,652,751	4,483,504	4,675,891	192,387

Inventory consumption	879,233	896,298	618,195	–278,103	993,247	913,956	574,282	–339,674		0	0	0	0	0
Other	17,973	16,478	32,719	16,241	73,146	80,346	82,406	2,060	35,989	55,533	55,533	33,617	33,013	–604
Depreciation	1,653,696	1,781,326	1,800,300	18,974	1,996,539	2,237,335	2,234,956	–2,379	2,576,312	2,678,112	2,678,112	2,768,014	2,782,814	14,800
Loss on sale	12,077	863	0	–863	0	0	0	0	0	0	0	0	0	0
Write Down	0	0	478,173	478,173	0	226,920	1,098,870	871,950	168,531	239,151	425,327	100,000	100,000	0
Total expenses	10,124,743	10,792,295	11,123,136	330,841	11,803,867	12,503,263	12,739,162	235,899	13,068,440	13,365,088	13,353,088	13,229,048	13,466,362	237,314
Result (less CUC)	0	0	716,514	716,514	0	0	1,416,232	1,416,232	0	0	12,000	0	0	0

Annex A.3 Statement of financial position (all numbers in $'000s)														
			1999–00	**1999–00**	**2000–01**	**2000–01**	**2000–01**	**2000–01**	**2001–02**	**2001–02**	**2001–02**	**2002–03**	**2002–03**	**2002–03**
	Budget	**Revised**	**Actual**	**Variance**	**Budget**	**Revised**	**Actual**	**Variance**	**Budget**	**Revised**	**Projected Result**	**Revised**	**Budget Est**	**Variance**
		a	**b**	**b–a**		**c**	**d**	**d–c**				**e**	**f**	**f–e**
Assets														
Cash	18,514	86,857	137,913	51,056	98,617	50,482	58,303	7,821	154,642	313,824	500,000	423,631	609,807	186,176
Receivables	307,327	286,509	363,446	76,937	268,835	353,981	544,596	190,615	285,727	440,708	440,708	433,808	433,808	0
Property, plant & equipment & intangibles	36,361,433	36,730,469	40,707,951	3,977,482	37,027,363	40,184,154	43,808,697	3,624,543	41,600,382	44,154,324	43,968,148	44,452,960	44,569,747	116,787
Inventories	2,607,844	2,675,027	2,933,463	258,436	2,674,676	2,858,501	3,238,786	380,285	2,947,049	3,194,225	3,194,225	3,106,816	3,127,706	20,890
Other non–financial assets	533,753	915,072	679,035	–236,037	910,652	673,276	574,963	–98,313	669,674	482,963	482,963	482,963	482,963	0
Total Assets	39,828,871	40,693,934	44,821,808	4,127,874	40,980,143	44,120,394	48,225,345	4,104,951	45,657,474	48,586,044	48,586,044	48,900,178	49,224,031	323,853
Liabilities														
Debt	0	–678	556	1,234	63	313	391,898	391,585	250	381,194	381,194	369,599	369,599	0
Employees	2,054,680	2,373,302	2,459,591	86,289	2,338,171	2,353,763	2,732,908	379,145	2,381,266	2,842,288	2,842,288	2,956,058	2,956,058	0
Other liabilities	581,759	520,620	662,247	141,627	532,341	620,034	830,485	210,451	530,391	488,485	488,485	488,485	488,485	0
Total liabilities	2,636,439	2,893,244	3,122,394	229,150	2,870,575	2,974,110	3,955,291	981,181	2,911,907	3,711,967	3,711,967	3,814,142	3,814,142	0
Net assets	37,192,432	37,800,690	41,699,414	3,898,724	38,109,568	41,146,284	44,270,054	3,123,770	42,745,567	44,874,077	44,874,077	45,086,036	45,409,889	323,853
Equity														
Accumulated surpluses	33,404,290	35,024,036	36,895,453	1,871,417	34,619,368	36,415,252	38,304,586	1,889,334	37,783,588	38,232,886	38,232,886	37,457,338	37,573,386	116,048
Capital (accumulated equity injections)	2,517,004	687,170	687,170	0	1,518,498	780,692	780,692	0	1,728,756	1,482,951	1,482,951	2,293,861	2,501,666	207,805
Capital withdrawal	0	0	0	0	0	0	–45,616	–45,616	–633500	–71700	–71,700	In acc surp	In acc. surp	0
Reserves	1,271,138	2,089,484	4,116,791	2,027,307	1,971,702	3,950,340	5,230,391	1,280,051	3,866,723	5,229,940	5,229,940	5,334,837	5,334,837	0
Total equity	37,192,432	37,800,690	41,699,414	3,898,724	38,109,568	41,146,284	44,270,053	3,123,769	42,745,567	44,874,077	44,874,077	45,086,036	45,409,889	323,853

Annex A.4 Statement of cash flows (all numbers in $'000s)														
	1999–00	1999–00	1999–00	1999–00	2000–01	2000–01	2000–01	2000–01	2001–02	2001–2002	2001–02	2002–03	2002–03	2002–03
	Budget	Revised	Actual	Variance	Budget	Revised	Actual	Variance	Budget	Revised	Projected Result	Revised	Budget Est	Variance
		a	b	b–a		c	d	d–c				e	f	f–e
Operating activities														
Cash in	14,587,835	15,328,540	15,973,816	645,276	16,461,574	17,516,810	18,051,565	534,755	17,870,651	18,896,958	18,896,958	18,771,172	19,334,062	562,890
Less:Cash used	8,047,872	8,871,654	8,262,530	–609,124	9,627,962	9,905,901	9,841,736	–64,165	10,205,032	11,304,008	11,105,832	10,942,150	11,214,865	272,715
Net operating cashflows	6,539,963	6,456,886	7,711,286	1,254,400	6,833,612	7,610,909	8,209,829	598,920	7,665,619	7,592,950	7,791,126	7,829,022	8,119,197	290,175
Investing (capital)														
Cash in	223,535	226,547	132,906	–93,641	872,077	836,108	87,142	–748,966	1,099,047	198,914	198,914	868,814	699,766	–169,048
Less:Cash used (assets)	3,578,636	2,822,056	3,913,912	1,091,856	3,327,036	3,092,246	3,413,171	320,925	3,293,386	3,469,155	3,469,155	3,923,667	4,072,382	148,715
Net investing cashflows	–3,355,101	–2,595,509	–3,781,006	–1,185,497	–2,454,959	–2,256,138	–3,326,029	–1,069,891	–2,194,339	–3,270,241	–3,270,241	–3,054,853	–3,372,616	–317,763
Financing														
Cash in	1,278,230	687,170	687,170	0	752,918	93,522	93,522	0	10,564	786,963	786,963	882,610	1,090,415	207,805
Less: Cash used	4,463,092	4,548,547	4,560,603	12,056	5,126,655	5,535,724	5,065,454	–470,270	5,405,311	4,854,151	4,866,151	5,546,972	5,727,189	180,217
Net financing cashflows	–3,184,862	–3,861,377	–3,873,433	–12,056	–4,373,737	–5,442,202	–4,971,932	470,270	–5,394,747	–4,067,188	–4,079,188	–4,664,362	–4,636,774	27,588
Net total increase/decrease	0	0	56,847	56,847	4,916	–87,431	–88,132	–701	76,533	255,521	441,697	109,807	109,807	0
Opening balance	18,514	86,857	81,065	–5,792	93,701	137,913	146,436	8,523	78109	58,303	58,303	313,824	500,000	186,176
Closing balance	18,514	86,857	137,912	51,055	98,617	50,482	58,304	7,822	154,642	313,824	500,000	423,631	609,807	186,176

Annex A.5 Capital budget statement (all numbers in $'000s)														
	1999–00	1999–00	1999–00	1999–00	2000–01	2000–01	2000–01	2000–01	2001–02	2001–02	2001–02	2002–03	2002–03	2002–03
	Budget	Revised	Actual	Variance	Budget	Revised	Actual	Variance	Budget	Revised	Projected Result	Revised	Budget Est	Variance
		a	b	b–a		c	d	d–c				e	f	f–e
Capital expenditure	3,578,636	2,822,056	3,913,912	1,091,856	3,327,036	3,092,246	3,413,171	320,925	3,293,386	3,469,155	3,469,155	3,923,667	4,072,382	148,715
Funded from														
Equity Injection	1,278,230	687,170	687,170	0	752,918	93,522	93,522	0	10,564	754,175	754,175	882,610	1,090,415	–207,805
Self Funding	2,076,871	1,908,339	3.032,946	1,124,607	2,182,241	2,642,816	3,232,507	589,691	2,817,275	2,587,766	2,587,766	2,947,791	2,941,701	6,090
Net Capital Receipts	223,535	226,547	193,796	–32,751	391,877	355,908	87,142	–268,766	465,547	127,214	127,214	93,266	40,266	53,000
Total	3,578,636	2,822,056	3,913,912	1,091,856	3,327,036	3,092,246	3,413,171	320,925	3,293,386	3,469,155	3,469,155	3,923,667	4,072,382	–148,715
Capital receipts budget														0
Asset Sales	128,560	131,572	132,906	1,334	820,400	811,925	87,142	–724,783	1,022,514	198,914	198,914	868,814	699,766	169,048
Other receipts	94,975	94,975	60,890	–34,085	51,677	24,183	0	–24,183	76,533	0	0	0	0	0

Withdrawal	0	0	0	0	–480,200	–480,200	0	480,200	–633,500	71,700	–71,700	–775,548	–659,500	–116,048
Net Capital receipts	223,535	226,547	193,796	–32,751	391,877	355,908	87,142	–268,766	465,547	127,214	127,214	93,266	40,266	53,000

Annex A.6 Administered notes (all numbers in $'000s)														
	1999–00	**1999–00**	**1999–00**	**1999–00**	**2000–01**	**2000–01**	**2000–01**	**2000–01**	**2001–02**	**2001–02**	**2001–02**	**2002–03**	**2002–03**	**2002–03**
	Budget	**Revised**	**Actual**	**Variance**	**Budget**	**Revised**	**Actual**	**Variance**	**Budget**	**Revised**	**Projected Result**	**Revised**	**Budget Est**	**Variance**
		a	**b**	**b–a**		**c**	**d**	**d–c**				**e**	**f**	**f–e**
Administered assets	3,299,871	2,204,615	1,869,559	–335,056	2,726,096	2,322,930	1,721,100	–601,830	2,841,469	2,818,596	28,728,085	3,718,418	29,628,085	25,909,667
Administered liabilities	24,353,473	23,665,833	24,630,846	965,013	24,167,314	25,078,216	26,023,859	945,643	25,602,755	27,118,440	27,118,260	28,018,620	28,018,260	–360
Administered appropriations	1,952,874	1,658,912	1,235,154	–423,758	1,760,364	2,205,130	1,282,937	–922,193	1,800,548	2,300,179	2,305,879	2,200,181	2,205,881	5,700
Administered expenses	1,952,874	1,658,912	2,641,374	982,462	1,760,364	2,205,130	2,685,924	480,794	1,800,548	2,300,179	2,305,879	2,200,181	2,205,881	5,700
Administered benefit payments	1,228,240	1,342,738	1,260,692	–82,046	1,255,572	1,761,353	1,278,811	–482,542	1,275,738	1,300,000	1,300,000	1,300,000	1,300,000	0

ABOUT THE AUSTRALIAN STRATEGIC POLICY INSTITUTE

ASPI is an independent, non-partisan research institute on strategic policy. It has been set up by the Government to provide fresh ideas on Australia's defence and strategic policy choices. It will help Australians understand the critical strategic choices which our country will face over the coming years, and will help Government make better-informed decisions. ASPI is charged with the task of informing the public on strategic and defence issues, generating fresh ideas for government, and fostering strategic expertise in Australia.

ASPI is therefore a policy-focused organisation, and its products are above all else contributions to the policy debate, both inside and outside Government. For more information, see ASPI's website at www.aspi.org.au.

ASPI's Research Program

ASPI Policy Proposals

Each year ASPI will publish a number of policy proposals on key issues facing Australian strategic and defence decision-makers. These proposals will draw on work by external contributors.

ASPI Policy Annuals

ASPI will publish a series of annual publications on key topics.

Current Studies

ASPI plans to publish a series of shorter studies, of up to 5,000 words each, on topical subjects that arise in public debate.

Commissioned Work

ASPI will undertake commissioned research for clients including Commonwealth ministers and departments, State Governments, foreign governments and industry.

ASPI'S PROGRAMS

Strategy and International Program

This program covers ASPI's work on Australia's international security environment, the development of our higher strategic policy, our approach to new security challenges, and the management of our international defence relationships. It is also responsible for relationships with overseas institutions and the international visitors program.

Operations and Capability Program

This program covers ASPI's work on the operational needs of the Australian Defence Force, the development of our defence capabilities, and the impact of new technology

on our armed forces. It also covers the major capability investment issues, and on higher-level workforce issues such as Reserves.

The Budget and Management Program

This program covers the full range of questions concerning the delivery of capability, from financial issues and personnel management to acquisition and contracting out – issues that are central to the Government's policy responsibilities, but receive very little outside attention. This program will also be responsible for the overall promotion of our program of commissioned work.

ASPI's events program

ASPI's event program is planned to include major lectures, conferences of senior opinion leaders in the wider community, summer schools, informal seminars for the policy community, and seminars and other events in centres around Australia. We also host prominent international experts on defence and strategic issues to Australia for visits.

ASPI will also undertake dialogues on strategic issues with a number of key regional countries.

GLOSSARY

ADF	Australian Defence Force
AES	Additional Estimates Statements
AEW&C	Airborne Early Warning & Control
ANAO	Australian National Audit Office
APS	Australian Public Service
CDF	Chief of the Defence Force
CSP	Commercial Support program
CUC	Capital Use Charge
DCP	Defence Capability Plan
DFRB	Defence Force Retirement and Death Benefits
DHA	Defence Housing Authority
DMO	Defence Materiel Organisation
DRP	Defence Reform Program
DSTO	Defence Science and Technology Organisation
EWSP	Electronic Warfare Self Protection
FADT	Foreign Affairs Defence and Trade
FBT	Fringe Benefits Tax
FMA	*Financial Management and Accountability Act 1997*
GDP	Gross Domestic Product
GST	Goods and services tax
MSBS	Military Superannuation and Benefits Scheme
PAES	Portfolio Additional Estimates Statements
PBS	Portfolio Budget Statement
SES	Senior Executive Service

The Cost of Defence

ASPI Defence Budget Brief 2002–2003