

**"Future
Directions
for the
Management of
Australia's
Defence"**

Report of the Defence Efficiency Review

10 March 1997

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DEPARTMENT OF DEFENCE

PO Box E33, Queen Victoria Terrace, CANBERRA ACT 2600, AUSTRALIA

10 March 1997

The Honourable Ian McLachlan AO MP
Minister for Defence
Suite MF41
Executive Wing
Parliament House
CANBERRA ACT 2600

Dear Minister

As requested in your letter of 15 October 1996, attached please find the Report of the Defence Efficiency Review.

We wish to acknowledge the exemplary contributions of Brigadier Peter Dunn and Mr Patrick Hannan, joint Heads of our Secretariat, and all the Secretariat staff and external advisors.

Yours sincerely

Malcolm McIntosh

Andrew Michelmore

Richard Brabin-Smith

John Stone

Ian Burgess

Robert Walls

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- A. Secretariat, sub-Review Teams and External Advisors to the sub-Review Teams.
- B. Draft Directives to the Chief of the Defence Force, Secretary to the Department of Defence and the Chiefs of the Navy, Army and Air Force.
- C. Forecast Savings from the Defence Efficiency Review.
- D. Proposed Functional Structure.
- E. Key Findings and Recommendations.

NOTE

During the development of our Report the Senior Review Panel was assisted by and benefited greatly from papers produced by the Secretariat. These have been published as an addendum to this Report. In its deliberations the Senior Review Panel did not always accept the recommendations of the Secretariat.

Introduction

On 15 October 1996, the Minister for Defence established the Defence Efficiency Review with Terms of Reference to:

- a. *identify key management processes across the Defence program structure,*
- b. *assess the efficiency and effectiveness of current management and financial processes,*
- c. *make recommendations for reforming Defence management and financial processes to ensure that they:*
 - *are carried out in the most efficient and effective manner possible;*
 - *eliminate duplication between and within Defence programs;*
 - *take a rigorous approach to defining 'core' and 'non-core' business;*
 - *make appropriate use of commercialisation options;*
 - *reflect, where appropriate, modern business practices;*
 - *enhance combat capabilities; and*
 - *produce the most efficient and effective Defence Force possible within current budgetary restraints.*

The Review's recommendations should enhance the Government's Defence policy goals of developing greater defence self-reliance, promoting closer alliance relations and promoting regional engagement.

The Review is to propose an implementation strategy giving effect to its recommendations.

The Minister appointed as members of the Senior Review Panel:

Malcolm McIntosh (Chairman)	Chief Executive CSIRO, formerly Chief of Defence Procurement in the UK Ministry of Defence, Secretary to the Australian Department of Industry Technology and Commerce, and Deputy Secretary in the Australian Department of Defence.
Richard Brabin-Smith	Chief Defence Scientist, formerly First Assistant Secretary Force Development and Analysis and First Assistant Secretary International Policy in the Australian Department of Defence.
Ian Burgess	Chairman of the AMP Society, Director of CSR Ltd, Pacific Dunlop Ltd and Western Mining Corporation Holdings Ltd., Trustee of the Walter and Eliza Hall Institute
Andrew Michelmore	Executive General Manager, Business Development, Planning and Technology, Western Mining Corporation.
John Stone	Consultant, formerly Senator for Queensland and Secretary to the Australian Treasury.
Robert Walls	Vice Admiral, Vice Chief of the Australian Defence Force.

The Senior Review Panel, with the help of the ADF, the Department and the Minister, established a Secretariat and nine teams, comprising a mixture of military and civilian staff from the Department and external experts in the fields of:

- Defence Management and Committee Processes;
- Policy and Strategic Guidance;
- Capability Development and Acquisition;
- Industry Policy;
- Facilities and Long Term Force Disposition;
- Personnel Planning and Management;
- Training and Education;
- Science and Technology; and
- Logistics.

Membership of the Secretariat and the teams is at Annex A. The Senior Review Panel wishes to record its appreciation of the generous donation of their time and intellect by all external members and the hard work and innovation that they and all the internal members contributed to the work of the Review.

The expectation we had on commencing the inquiry was that the vast majority of proposals for improvement would come from currently serving members of the Australian Defence Force (ADF) and the Department, who know their own areas best, and that has proved to be so. We received some 255 submissions and 41 calls on the Review hotline. More importantly, our teams consulted widely in their areas of responsibility to establish problems, solicit solutions and identify areas with potential for substantial efficiency improvement. Little or nothing remains in this final report that has not been contributed by Defence people, and in that sense it is their report as much as the Panel's. We, the Senior Review Panel, do, of course, take full responsibility for all the views expressed and for any remaining errors.

In the process of actually writing our report, we did not consult widely again, but concentrated our consultation with those officers of the ADF and the Department carrying responsibility for the particular area under review. Full agreement was not reached everywhere, but a great deal was, and we are grateful for the constructive way in which people responded to what were often quite radical and disruptive proposals for change in their areas. One consequence of the consultation process is that we have not sought to document all the pros and cons or underlying philosophies in every area of the report, particularly those where substantial agreement was reached.

In starting this Review, we must give credit for the changes and great deal of reform already achieved over recent years. We are advised, for example, that both military and civilian areas of the organisation have been reduced by over 17 per cent since the early 1990s (16,200 people) without real loss of capability; efficiencies of nearly \$500m have been accomplished to sustain the investment program and activity levels at times of reducing budgets; and Defence has been a leader in contracting out through the successful Commercial Support Program involving commercial contracts worth \$600m.

But this is not the time to rest on laurels. More can, and needs to be done if Defence is to achieve and maintain capabilities for an increasingly complex strategic environment with new uncertainties.

The objectives of this Review fall into three broad categories:

- a. to shape management practices and organisations to fit Defence for the increasing challenges which lie ahead;
- b. to forge closer links with Australian industry in all its forms so that the national ability to adapt, expand and sustain forces in time of need is assured; and
- c. through these processes and other efficiencies, to free up resources for further development of combat power.

THE DEFENCE EFFICIENCY REVIEW

Strategic Setting

As the Terms of Reference show, this Review was designed to address the efficiency and effectiveness of the Defence Organisation in carrying out the roles and tasks assigned to it by the Government - we were not expected to reassess those roles and tasks unless there emerged a direct impact on efficiency. We believe it is important, however, that we start with a clear understanding of the purpose of the Defence Organisation and the broad challenges that it faces.

Our starting point for the Review is the simple fact that the Defence Organisation exists to provide military capability to the Government for use in war, and that every aspect of the organisation must contribute to that objective. We must structure for war and adapt for peace. That means that the organisation must be structured and managed to meet two tasks. In peacetime, it must produce the maximum possible overall capability in the ADF from the dollars available. In wartime, it must use, expand and support that capability as effectively as possible. The primacy of these tasks for any defence organisation should be self-evident, but over long periods of peace it can be hard to retain such a clear focus. Keeping the focus on the efficient production and support of military capability is one of the key challenges of defence management, and helping to sharpen that focus in Australia's Defence Organisation has been the principal purpose of this Review.

In undertaking our Review we have not sought to redefine Australia's strategic requirements; rather we have undertaken our task with the nature and scale of the defence tasks that face our country uppermost in our minds.

Australia's need to maintain military capability does not arise from any current direct and imminent threat of armed attack upon us. It arises from the possibility that a conflict threatening Australia's vital interests could develop quite quickly, and certainly more quickly than we could develop forces to meet it. The current risk of such conflict is not high but nor is it negligible, and it has grown in recent years. The end of the Cold War has made our regional strategic circumstances more complex, uncertain and demanding and the expert judgment is that Australia's need for military capabilities remains at least as high today as it has been over the past twenty-five years.

If we are to remain confident that we could defeat any credible attack against Australia, our capabilities need to grow, because capabilities throughout our region are growing and becoming more sophisticated at an unprecedented rate. It is only prudent to expect that the trend will continue.

This constitutes a major long-term shift in Australia's strategic circumstances. Until now Australia has enjoyed a comfortable margin of military capability over most of the countries of our region. At the most fundamental level, that margin of advantage has been the result of our relative economic strength. As the economies of our neighbours throughout the Asia-Pacific region grow, their ability to develop their forces is growing too. That is, as our relative economic position declines, it will become harder for Australia to retain the relative military advantage on which our security from armed attack has ultimately depended.

This trend poses a fundamental challenge to the quality of our defence management. The need for Australia's Defence Organisation to derive the maximum capability for each dollar does not arise only from the normal demands of fiscal responsibility. It arises from a more fundamental strategic imperative to maintain our relative strategic standing in a region which is rapidly catching up with us economically. Better planning and better management are thus essential to our future defence capability.

The Defence Organisation's approach to meeting that challenge must build on three basic and closely-related strengths.

The first is Australia's strategic geography. As an island continent we have significant natural strategic advantages; a more cost-effective defence posture will need to exploit those advantages as much as possible. That requires us to make the most of our second strength, which is an established regional lead in a wide range of military technologies. To exploit and sustain that advantage, we will need to build an increasingly technology-intensive defence force, which will require new equipment and upgrades, on the one hand, and better use of the equipment we do have, on the other. Our perception is that the economic growth in our region will make this particular advantage more difficult to sustain as time passes.

Third, we need to organise our forces to exploit our geography and technology as effectively as possible and we are convinced that this will be by operating as a single, joint force. This is already an important doctrine of the ADF. We believe joint forces will be fundamental if the ADF is to meet the demands of the next century, and believe the issue cannot be overemphasised.

Given the trends we have identified towards high technology, joint force activities, we believe there are very substantial savings to be extracted from reducing the replication of many routine support and administrative tasks in the three Services and the civil element of the Department. In no way should such changes be allowed to impact on the individual, unit and formation competencies required of the three fighting Services, which have distinctive skill sets, operational characteristics and, therefore, some different support requirements; and we believe they will not. They will, however, provide significant additional financial headroom for the acquisition of new systems and rebalancing of the forces that seem so essential for the decades ahead. Indeed, the very essence of this Review is to free up resources from support and administrative activities to strengthen the ADF's combat capabilities.

In the first instance, as we will attempt to show in this Report, achieving the necessary savings and redistributing them to greater warfighting capabilities will be a major step forward, although we concede that it will be a difficult and demanding task. We suspect as a Panel that, when this is done, it may still prove to be insufficient for the defence of this nation and its interests. We consider it more than likely that an objective review at that point will show quite clearly that more overall resources (i.e. a higher proportion of GDP) are required. We believe, however, that it would be wrong to ask the Australian people to provide more resources until Defence can show it is efficiently and effectively using the resources it has now.

Higher Defence Arrangements

In seeking efficiencies, the Senior Review Panel, as described in the Introduction to this Report, commissioned work in the areas where it considered that they were most likely to be found. In parallel, we recognised that there were likely to be significant efficiencies in how all those parts were brought together, and commenced a “top-down” review of the organisation.

In the event, our expectations of aggregation efficiencies proved to be greatly understated. In virtually every area examined, those responsible have highlighted dysfunctional aspects of the higher level arrangements, which prevent them obtaining what to them are obvious improvements. The predominant concern expressed was the “tribalism” of the three Services and the Public Service in protecting their assets and influence. We were reminded of President Truman's comment at the end of the Second World War. “We must never

fight another war the way we fought the last two. I have the feeling that if the Army and the Navy had fought our enemies as hard as they fought each other, the war would have ended much earlier”.

This concern - not of course restricted to the Army and the Navy - caused us to consider the merger of the three Services along the lines of the United States Marine Corps (rather than that of the Canadian Armed Forces). We believe that there are clear differences in technologies, equipment, doctrine and tactics which lead to very specialised skills at individual, unit and formation levels between the three Services. We see no benefits from merging them commensurate with the costs of blurring this specialisation in the long-term and the massive disruption that would inevitably occur in the short term.

It is easy to be too sweeping - even facile - in this area where a great deal has been done in recent years. There are compelling reasons for different practices in the three Services and the Public Service, and individuals are passionate in defence of the parts of the organisation in which they grew up. Allowance must also be made for the difficulties in objective measurement. A commercial organisation gets frequent feedback, often daily, from its customers on whether they are buying its products or not, and the company can measure the contribution to this outcome from its organisational components in profit and cost terms. In the Defence world, there is a limited and contrived measure of effectiveness in military exercises, but no real measure of whether the forces would win short of war itself. With no measure of final outcome, efficiency measures for the various components that are required to produce the combat forces are also proxy and incomplete.

All those (and other) caveats aside, we were both surprised and impressed by how often, and at what senior as well as junior levels, concerns were voiced. At the very least there is a pervasive view that the organisation is not functioning as well as it should, a view which must be addressed. The Senior Review Panel believes that parts of it are clearly in need of reform.

Again a caveat is important. This widespread critical view of the organisation taken as an administrative whole is not mirrored in the operational units of the three Services and the Public Service, where a professional “can do” attitude flourishes and is demonstrated wherever and whenever the opportunity arises - rescuing overturned yachtsmen, aid to the community for floods and bushfires, quick adaptation to electronic systems by scientists, as well as our contributions to UN forces around the globe, all reinforce this observation. The puzzle

is why these same people, when moved to different positions or promoted to higher levels, tolerate what everyone we spoke to asserts or concedes is a significantly sub-optimal system. Since many of the same characteristics exist in defence forces elsewhere, it is clear that there is no simple obvious answer.

The Senior Review Panel started its consideration of this question by examining the diarchy - the Chief of the Defence Force (CDF) and the Secretary to the Department of Defence - who together run the organisation under the policy direction and ultimate authority of the Minister. This is an arrangement which has been in place since 1976 and is, we think, unique to Defence organisations. Even then, the degree of equality of the two officers is unusual and has its main counterparts in the Commonwealth countries based on the British Westminster system.

There is no doubt that this form of shared responsibility can slow down decisions and requires compromise. It requires great consideration and tolerance to work well, from individuals whose prior experience is unlikely to have fostered such traits. Against that, the logic of separating the military command function from that of departmental administration is compelling, as wartime experience has shown, as are the benefits of having both military and civil input to the formulation of strategic policy and the allocation of resources.

We considered the argument that having the Secretary at the same level as CDF contributed to the checks and balances that are fundamental to the western democracies. Given the existence of a civilian Minister as the fount of all power and authority, and more recently a junior Minister as well, we found this unconvincing.

We considered the case for making one or the other indisputably senior and could see no way of doing so efficiently and equitably, while respecting their special responsibilities and expertise. We agree, of course, that consensus is important at this (and other) levels of Defence, but stress that it should not be achieved at the expense of vigorous debate, clear decisions, and responsibility and accountability clearly articulated and monitored.

We concluded that the diarchy is appropriate for Defence in Australia, but that much could be gained by making much clearer the single and joint responsibilities of the CDF and the Secretary, recognising that there are very few areas in which each does not have some interest.

One significant achievement over the last decade has been the progressive breaking down of civilian-military tension within the organisation. This leaves Defence well placed to pursue further integration of civilian and military staffs so that the full range of skills and intellects can be applied to common objectives. This integration begins with the diarchy.

The vehicle for promulgating the responsibilities of the CDF and the Secretary is a directive to each from the Minister. As it happens, the current directives (and those to the three Service Chiefs) are from the previous Minister and are overdue for replacement. We propose that the new directives should include a clarification of functions along the lines of the drafts at Annex B.

Having resolved the role of the diarchy, we turned to the next level down. There is no doubt in our minds that the CDF and the Secretary must be unambiguously in charge of the organisation and that everyone in it is subordinate to them.

For the Deputy Secretaries this has never been an issue. Our recommendations later in this Report would change the roles and functions of the Deputy Secretaries in ways that might be interpreted as creating some ambiguity, but that is not our intent. For example, proposing that the Deputy Secretary for Strategy and Intelligence (DEPSEC S&I) support both the CDF and the Secretary or that the Deputy Secretary for Acquisition, whom we propose renaming the Chief of Defence Acquisition (CDA), have more control over his resources than he now has, must not be allowed to weaken their accountability, on the one hand, or their contribution to affairs of the organisation generally, on the other.

The way in which responsibilities of the Chiefs of the three Services are delivered have changed considerably over time and we discerned substantial differences of view as to how they should be met. We believe this confusion must be resolved.

The *Defence Act* of 1903 as amended most recently in 1997 makes it quite clear that the three Chiefs are responsible to the Minister for their Services and we believe that is self-evidently correct. It has, however, also made it clear that their responsibilities are through CDF, which we also believe to be correct. The idea that the Service Chiefs (or anyone else) should have a formal right to bypass their superior officer is contrary to sound management theory and practice, which highlights single lines of responsibility and accountability, and to accepted military theory and experience, which highlights unity of command.

That the Chiefs should have frequent and substantial access to the Minister (along with the Deputy Secretaries and others in their areas of special responsibility) and that a wise CDF, Secretary and Minister will wish to know their views and any areas of important disagreement, even in areas beyond their immediate responsibilities, we also regard as self-evident and would not wish to curtail. None of that, in our view, however, should cut across or subvert unity of command. We believe that an important signal of the respective roles of CDF and the Service Chiefs would be for CDF, rather than the Minister, to issue the Chiefs with their directives. Our proposals for new directives for the Service Chiefs are also at Annex B, with those for CDF and the Secretary.

Interestingly, few such issues arise between the Secretary and the Service Chiefs, and none at all between the Secretary and the Deputy Secretaries. The Secretary's powers in respect of finance, the Public Service and other functions are generally recognised and respected throughout the organisation. Of course, even when the Navy, Army and Air Force had separate Ministers and Departments, they each had a Departmental Secretary to perform those functions, which were effectively merged into the functions of the Secretary to the Department of Defence after the 1973 review by Sir Arthur Tange. That the Service Chiefs are drawn almost always from the front-line of their Services may also make them less inclined to contest administrative matters. Whatever the reasons, we see no real problems or need for a change in relationships with the Secretary.

Our second concern at the level below the diarchy is the way strategic policy and planning support is provided to the CDF and Secretary, which boils down to the respective roles of the DEPSEC S&I and the VCDF, on the one hand, and how the three Service Chiefs and the other Deputy Secretaries are involved in and contribute to such considerations, on the other.

This area, in many ways, provides the intellectual powerhouse that drives the coherent functioning of the whole organisation - it interprets world events, sets high level directions, plans and policies, monitors their efficacy and modifies them as circumstances change. As such, there is a high degree of interaction with the Minister and the rest of Government. It requires, either as long-term civilian or more transient military staff, the best quality available and must inculcate into them a strong sense of vision for the defence function. People with such capabilities are not plentiful and we should not waste them through unproductive duplication and competition. The very nature of defence is that our competition is external and that should be our focus.

There are several areas where the staffs of DEPSEC S&I and VCDF are duplicatively structured. Strategic guidance and force structure are two of the most prominent.

Our proposal recognises that DEPSEC S&I and VCDF invariably bring different skills and experience to the organisation, which would be far better exploited if they were to be given responsibilities aligned with their skills, on which they would report to both the Secretary and CDF as appropriate. In the case of VCDF, these responsibilities would be in addition to the requirement to under-study CDF and undertake other tasks as directed by him. We believe that the best way to reorganise this is as follows, although other arrangements are clearly possible:

**DEPSEC S&I
responsible for:**

- Intelligence production and dissemination policies
- Strategic Policy and Plans
- International Policy
- Long Term Planning
- Preparedness Policy

**VCDF
responsible for:**

- Capability Development
- Command and Control, Communications, Computers and Information Warfare Policy
- Logistics Policy
- Personnel Policy
- Military Plans

This separation of responsibilities does not imply that DEPSEC S&I and VCDF and their respective staffs work in isolation of each other. On the contrary, extremely close working relationships will be required to ensure that the products of each area are inextricably linked, for example in the capability development process. In each case, the staffs would be mixed civil and military, and, within the military, mixed Services. We believe the overriding principle to be “best person for the job”.

In thinking about these structures, we have been drawn strongly to the idea that the function of long-term resource analysis should return to this central policy and planning area. We appreciate that there are commonalities in, for example, accounting and financial skills between the resource analysis and finance areas, as well as common data bases and information systems, which have led to administrative efficiencies from having the functions together, and propose to leave them that way for the bulk of the function. We suspect, however, that this has led to poorer linkages to strategic guidance, less robust debate and poorer

decisions in resource allocation. Even minor resource misallocations to, or within, the large spending programs can have efficiency consequences out of all proportion to the administrative efficiencies. We, therefore, propose transferring only the group that deals with the resource consequences of strategic planning into DEPSEC S&I's area.

Within the strategic structure, we see a much enhanced role for the three Service Chiefs. To be selected as a Service Chief, an individual will have had a diverse and successful career, including joint activities as well as the main combat command jobs at the different levels in his Service. This makes each of them pre-eminently the best advisor on their single Service's capabilities and possible contributions to contingencies, and as potential CDFs, capable contributors to wider issues. We would like to see their personal input on such corporate matters more formally recognised and required.

One way of achieving that is to require it formally in their Directives, which we have sought to do in our proposals at Annex B. Another is to reduce and even eliminate the layers of advisors at all levels. If there is confidence and trust between CDF and the Service Chiefs, it will not be necessary to have specialist military advisers on both staffs competing for influence. Rather, CDF could call on the Service Chief for the specialist military advice he needs. Similarly, we would like to think that a Service Chief would have sufficient confidence in his own Service to do the same - reach down to the responsible area for advice rather than include duplicative staff on his own headquarters. Comparable relationships should also apply across civil-military lines.

Among other things, such as better quality advice from those responsible for carrying out any directives, this should significantly reduce what the Panel sees as excessive central staffs in Canberra. There are some 7,600 personnel in the Defence bureaucracy in Canberra, including 3,200 military personnel. In our view, this must be reduced. In simplistic terms, removing obvious duplication within the Services, as well as with HQADF, would be equivalent to creating three extra battalions (2,100 personnel). If the staffs are left in place, they will find work to do, regardless that it is duplicative, disruptive, outside line responsibilities and certainly not adding value commensurate with their cost. We have noted that a normal large commercial organisation or Government authority would have numbers more like 100-200 in their corporate headquarters. While this may be going too far in a military organisation it is a useful benchmark.

The final issue in the higher defence arrangements is the structure and roles of committees. The formal position is that all committees in Defence are advisory to the delegate responsible for the area covered by the committee, who is usually the Committee Chair, and who makes the final decision and ensures it is carried out. The perception throughout the organisation is quite different - that committees have a life of their own regardless of who chairs them or the detailed membership; that they include members that have no direct interest in many of the issues under discussion and are there only to see that no other group gets an “advantage”; and that they make decisions by consensus, which often equates to the lowest common denominator. The commitment of anyone to act on committee decisions varies accordingly.

As a broad generalisation at the different levels in Defence, we think there are too many committees, with too many members and with far too much ritualised rather than thoughtful input. Some of this arises because different subjects require relatively minor changes in coverage and membership but some reflects a culture of sharing responsibility and avoiding blame. We have reviewed only the top two levels.

At the top level, there are two formal Committees. The Defence Program Management Committee (DPMC) deals with programming matters and includes the Secretary, CDF, VCDF, Service Chiefs and Deputy Secretaries. In parallel, CDF and the Service Chiefs meet as the Chiefs of Staff Committee (COSC). It has become the practice in recent years for the Secretary and VCDF and, where relevant, the appropriate Deputy Secretary and Chief Defence Scientist to be invited to attend COSC. There remain issues which are better and easier handled outside of the formal committee process and this led to the Secretary, CDF and the current eight Program Managers meeting informally as the so-called “Gang of 10”. Despite its informality, the “Gang of 10” has been recognised as an important forum by the rest of the Organisation.

We think there remains a case for two committees at this level, one dealing with military operational matters chaired by CDF, and one dealing with everything else, when it would be the management or executive committee for the organisation, and would be chaired by the Secretary. Such arrangements are already embodied in the COSC and the DPMC and these should be retained. We would prefer the latter be renamed the Defence Management Committee (DMC) to reflect its full role.

The Defence Act requires periodic meeting of a Committee known as the Defence Committee which includes the Secretaries of Prime Minister and Cabinet, Treasury, Foreign Affairs and Defence (Chair) together with CDF and Service Chiefs. The present Government has established new arrangements involving frequent meetings of the National Security Committee of Cabinet (NSCC) supported by meetings of the Secretaries Committee of National Security (SCNS) chaired by the Secretary to Prime Minister and Cabinet and including CDF and Secretary in its membership. Defence Legislation should be amended to reflect present arrangements by deleting reference to the Defence Committee.

Management and Finance

Under the higher management arrangements, the Senior Review Panel sees the way financial resources are distributed and managed as the most pervasive influence on the way the Defence function is managed and in determining the “culture” of the organisation. Put bluntly, where the money goes, hearts and minds follow. The basic principle espoused by the Department and endorsed by this Review Panel is that responsibility for money should be distributed widely to those carrying out the relevant function. To that, we would add the principle that the individual holding the delegation should be the one with responsibility for the local trade-offs for its use.

The first of these principles helps to ensure that money is spent properly in the sense that it is spent to achieve the outcomes for which it was provided. Of itself, it gives no flexibility or incentive for efficiencies. The latter concept is where efficiencies come into play in deciding between, for example, extra staff or extra travel; or extra staff and a new computer system that would increase the productivity of existing staff.

Program Management and Budgeting (PMB) arrangements, which we support, require identification of those areas in which trade-offs can be made.

This concept will increase in importance when full accrual accounting is introduced. Under the current arrangements all capital expenditure is treated as operational expenditure and, once spent, sunk. Under accrual accounting, among other things, capital expenditure will be accumulated, depreciated and revalued. Operating units will be required to account for their use of capital, which would have other uses within Defence.

Applying our second principle in such circumstances gives rise to some interesting outcomes. Suppose we chose to put the asset values of the F/A-18s in the accounts of the front-line squadrons. Apart from turning warfighters into accountants, for which they generally have neither the training nor the inclination, the only trade-offs they could consider would encourage conservative flying and unadventurous tactics, whereas imaginative flying at the limits of the aircraft's performance envelope is likely to win the war and must be practised in peace. Alternatively, giving the assets financially to the support commander is likely to free the operational commander and personnel of such concerns, and focus the support commander on such achievable trade-offs as more efficient repair and maintenance strategies, spares holdings and "make or buy" decisions to retain the financial and operational value of the assets in his care. Final choices involving asset management are for the future, when accrual accounting is being introduced. In the meantime, the same broad approach should apply and, as far as possible, we should adapt the present system in anticipation.

In the Review's examination of these issues, we found less flexible delegation than we expected, given that Defence is one of the very few Commonwealth activities to have effectively a "single line Appropriation", which conveys a great deal of authority to move money between functions and areas within Defence without external intervention. Too much, in our view, of the authority to move resources between inputs to achieve agreed outputs is held centrally within Programs; more of it should be delegated to operational managers. Indeed, the reason for introducing the current PMB arrangements was to provide a clear alignment of responsibility and authority, on the one hand, and much greater management flexibility and efficiency, on the other.

CURRENT TOP LEVEL PROGRAM STRUCTURE

Program	Program Authority	Estimated Outlays 1996-97 Budget Estimate (\$ million)
Forces Executive	Vice Chief of the Defence Force	755
Navy	Chief of Navy	1642
Army	Chief of Army	2353
Air Force	Chief of Air Force	1816
Strategy and Intelligence	Deputy Secretary Strategy and Intelligence	245
Acquisition	Deputy Secretary Acquisition	2306
Budget and Management	Deputy Secretary Budget and Management	857
Science and Technology	Chief Defence Scientist	230

During the course of the Review, a great many perceived problems with this structure at the top level and right down through its sub-structure were mentioned to the sub-Review teams and a general expectation arose that we would recommend changes to it. The short and general nature of the Review has, regretfully, precluded us developing a detailed sub-structure, which in some ways will determine the effectiveness and efficiency of our proposed changes at the higher levels. It will be for the Secretary and CDF to decide how best to complete this task, including their responsibilities for reporting to Government.

At the higher levels, our first concern is with the VCDF's program, the Forces Executive. This has become something of a dumping ground for any activity (and hence its resources) that is not considered appropriate for a single Service. Earlier in this report, we proposed changes to the VCDF position which would make many of his current financial responsibilities even less relevant. We therefore propose that this program be abolished and we identify elsewhere in this report a variety of repositories for the various non-Head Office functions involved and their resources.

While this will remove inappropriate activities, there will still be a Head Office activity, which we argue should comprise CDF and the Secretary, VCDF and DEPSEC S&I, and their staffs. In some organisations, the Head Office finances are grafted onto a convenient operational program, where they are generally relatively tiny and invisible. We do not think that should be the solu-

tion here. In the first place, the Defence Headquarters Program should be the repository for those uncommitted funds earmarked for the development of future capabilities (the “Pink Book”). Secondly, if the rest of our proposals are accepted, there will not be a suitable program to graft onto. More importantly, we think this is the sort of organisation that all its members should be able to see what the Head Office is costing, which will increase peer pressure for keeping it modest. Hence, we prefer a self-contained program for Defence HQ.

Our second concern is whether to create an “Operations” program, which would be separate from the three Service programs and, in the present structure, would be managed by Commander Australian Theatre (COMAST). We have been lobbied quite strongly against this idea from several quarters on essentially three grounds: it would turn COMAST from a warfighter into an accountant and distract him from his primary role; it is not necessary because CDF directs the Service Chiefs as to the resources (people, equipment, usage levels) they will provide to COMAST, regardless of who has the money; and it is important for the Service Chiefs to retain the Budgets so that they can do trade-offs within their Services. There is some truth in all of these, although we note the potential for conflict between the second and third. We do not, however, find them overwhelming arguments and believe a composite option is possible.

Under this option we would not put all the costs of the operating forces into a new COMAST program; rather, we would leave with the Services the underlying costs of providing “battle-ready” people, equipment, units and formations, and give to COMAST only the resources for operating those forces. That is, COMAST would be allocated such things as ship steaming time, vehicle miles and flying hours.

The effect of this option would be to place COMAST in a much more powerful position in respect of his operational program; in effect, the only way the Services could get access to operational money is to provide COMAST with the services he requires to meet his agreed program. Against this, it will be argued that, as the program and any changes to it must be agreed between COMAST and the Services, there is no need for a change. This argument works both ways and the need for agreement also constrains how COMAST can use his budget if he gets it. In effect, the change would shift the onus of proof to the advantage of joint operations, which we think entirely appropriate.

At the same time, this option would limit the effort COMAST must put into accounting for resources. He is already heavily involved in considering steaming time, vehicle miles, flying hours and so on, so it is not a new or unfamiliar

activity. Under COMAST are the Maritime, Land and Air Commanders who currently manage the operational budgets of the three Services, so that all the detailed expertise already exists in his command. Indeed, our view is that he should put the three current resources teams together to provide for his own program management support, which should allow substantial efficiencies, as well as a more coherent operating program.

We are aware that COMAST is just starting to command real forces from each of the three Services. If that works well, say, over the next year, the priority for changing the Program structure would diminish. We therefore concede that the establishment of a Combat Program could be held in abeyance at this time.

While dealing with COMAST, we should note a serious concern with the number of operational level headquarters proposed. The arrangements for the establishment of Headquarters Australian Theatre (HQAST) and associated headquarters will require too many people (some 2,300) given the overall size of the combat elements of the ADF. In particular, we doubt that sufficient staff-trained officers will be available to operate all of the proposed headquarters effectively.

We believe this concern must be tackled. One solution would be to combine the static headquarters at Headquarters Northern Command (NORCOM) with the Deployable Joint Force Headquarters (Land) currently based in Brisbane. Collocation and combination in Darwin would save staff positions and still allow both a static and deployable headquarters to be developed effectively.

Further efficiencies in COMAST's area can be gained by recognising the expertise of the top headquarters and reducing significantly the numbers of personnel assigned to subordinate operational level headquarters functions. In the light of the advice we have received from several quarters, we believe reductions of about 500 personnel should be achievable.

We also see merit in increasing COMAST's rank in due course to one above the environmental commanders he has under him.

Our third concern is with what is currently the Deputy Secretary Budget and Management (DEPSEC B&M) Program. Like the VCDF's program, this contains some functions (and their resources) which have no other obvious home, but its mainstay is the resources that provide corporate policy and services to the whole organisation, which include personnel and industrial relations, regional support, financial services and audit.

We argue elsewhere that, as service providers, each of these groups should be placed in a relationship with its customers throughout the ADF and Department which recognises the paramount position of the customer. We were not inclined to incur the overhead costs of a full user-pays system, but do recommend a system which has much the same effect. We are also concerned about systems which would allow these services to be used to exert authority over the organisation rather than serve it.

Specific changes we have recommended include merging civil and Service personnel activities into a Defence Personnel Executive, merging the various regional support structures, and creating a Defence Estate Executive.

We also believe that the Inspector General function should become an Executive in the independence of its functions and report directly to the Secretary and the CDF. We appreciate that this would increase the load on the Secretary and CDF, but believe it is fundamental to the real and perceived independence and authority of the unit, and that the workload can be kept within manageable proportions by delegation and agreement with the unit.

Similarly, we believe the finance function should become much more of a service function for the whole of Defence. The most demanding financial tasks relate to the annual Budget and the Five Year Defence Program, where those involved in the mechanics invariably end up setting a lot of the lesser priorities. We would prefer this system to be modified so that more authority over priorities ended up with line managers and the finance function became an Executive, which would avoid a great deal of nugatory, competitive work, on the one hand, and greatly assist in ensuring commonality of information and information systems, on the other. We are aware, of course, that the core accounting systems are common throughout Defence, but we are also aware that the financial aspects of many of the other systems are not, which seems unnecessary and very inefficient. We see the introduction of full accrual accounting as an opportunity for much of this incompatibility to be rectified.

With the restructuring of these components, we can see no long term justification for the Deputy Secretary Budget and Management position, in its present form.

It is, of course, for the Secretary to determine how many Deputies he needs to share the load efficiently and effectively and we appreciate that there is a very large external and internal agenda for change, which, at least for the next few

years, will increase the workload. It may be then that the Deputy Secretary position is required, but we would counsel strongly against retaining it in its present form.

The consequence of all these changes and the other changes recommended later in this Report is a functionally aligned top-level program structure along the following lines:

PROPOSED TOP LEVEL PROGRAM STRUCTURE

Program	Program Authority
Defence Headquarters	Deputy Secretary Strategy and Intelligence/Vice Chief of the Defence Force
Navy	Chief of Navy
Army	Chief of Army
Air Force	Chief of Air Force
Intelligence	Deputy Secretary Strategy and Intelligence
Acquisition	Chief, Defence Acquisition
Science & Technology	Chief Defence Scientist
Logistics	Commander Support
Defence Estate	Head, Defence Estate Executive
Personnel	Head, Personnel Executive
Education and Training	Commandant, Australian Defence Force Academy
Administration	Deputy Secretary Budget and Management, <i>pro tem</i>

Strategy and Intelligence

Concurrently with this Review, Mr Mike Codd, formerly Secretary to the Department of the Prime Minister and Cabinet, has been reviewing the Intelligence Agencies; we saw little benefit in replicating his work and have not done so. We are also aware that the Minister has called for a review of strategic guidance, which is being undertaken in parallel with this Review. In our earlier summary of the strategic setting, we have sought to include the directions emerging from that study, to the extent we are aware of them and how they affect our work.

The use of intelligence to assess our strategic circumstances and to formulate appropriate responses is a fundamental and routine activity of Defence. It is done by a relatively small and elite staff, which we have recommended should continue to support both the CDF and the Secretary. We see little cause or need for fundamental change, beyond our earlier recommendation for consolidation of the staffs of DEPSEC S&I and VCDF, in the interests of efficiency. In the interests of effectiveness, we would like to see a greater emphasis on producing longer-term strategic analyses, which have been called for across the ADF and Department to guide the operational areas.

Capability Development

In contrast with the Strategy and Intelligence area, Capability Development is a very important target for efficiency and effectiveness gains. The area is relatively small in terms of staff and direct expenditure, but very large in terms of the influence it wields over what the Services will do, and be capable of doing, in the future.

The most obvious manifestation of the capability development function is the Pink Book - the list of major new equipments planned to be acquired in the future. Capability, however, is much more than this - it also includes providing people with the necessary skills and experience to operate the equipment effectively, which also requires a body of tactics and doctrine, as well as maintenance and repair systems. Most importantly, it requires the detailed coordination of all the different aspects to create a new capability or enhance an existing capability. We were widely advised that detailed coordination has not always been done well.

Our principal concern has been with the effectiveness of the processes by which capability is planned and acquired, from which we expect efficiencies will also flow. Fundamentally, this is dependent on the rigour of the analysis leading to decisions, particularly in the trade-offs between, for example, the various ways of achieving a military objective (e.g. a small, long-range, remote precision strike might be undertaken from air, sea or land platforms, or a combination of these), or between the performance of a new system and its cost (in terms of its opportunity cost, or what else will have to be given up to afford it). We see two main groups of problems.

The first problem is with the quality of the technical analysis itself. Here we see a need for more advanced modelling and simulation, which we see as being undertaken mainly by DSTO in cooperation with industry, as appropriate. We see the need for a full suite of models, starting from basic technical models of such things as radar and sonar signatures, engine performance over the full range of possible operating conditions, and weapons effects. These should feed more comprehensive models of the performance of complete weapons systems, which, in turn, should feed complete battle field simulations.

We see merit in “man-in-the-loop” models and simulations , which allow the development of optimal tactics and unconventional uses of systems, as well as allowing human factors to be taken more into account.

Clearly, the more detailed technical models should emerge from the research done in the relevant specialist area - e.g. radar performance models by the radar group, but the higher level models will require a new effort to build, maintain, update and run them. We see considerable merit (technical benefit as well as minimising cost) in collaborating with close friends and allies in this endeavour.

The second problem is in creating a mechanism that pulls together all the relevant analysis for a particular new system to make the best possible decision. Our impression of the present system, and more importantly, the view of those who work in it, is that it is large and cumbersome, but it is not good at ensuring the rigour of analysis, the coordination of all aspects of the decision and the clear delineation of who is accountable for what. We have been pressed by all concerned to make substantial changes. Our starting point for change is to delineate much more clearly who brings the various bits of information to the decision and who is to be held accountable for achieving the various outcomes.

The concept for capability development is usually described in linear terms: strategic guidance informs capability analysis, which creates projects through which equipment is then acquired. Most capability development organisations, including ours, are structured in a corresponding way. In fact, the process is more iterative: there is a great deal of interaction between strategic guidance and capability analysis; and capability analysis is inevitably influenced by probable costs, which emerge from the project development process. It follows that there must be a great deal of interaction between Strategic, Development and Acquisition staffs from the outset of debate until all the essential parameters are settled.

This suggests to us that there are three key authorities in capability development: DEPSEC S&I, who is responsible for strategic guidance and longer-term resource allocation; VCDF, who is responsible for the operational requirement; and the Chief of Defence Acquisition (CDA) (currently known as the Deputy Secretary Acquisition), who is responsible for acquiring the capability within the funds allocated. It is our belief that those three should convene as the Defence Capability Committee (DCC), with DEPSEC S&I in the Chair, to approve (for ratification by the Defence Management Committee (DMC)) major projects over \$100 million, the overall program of lesser projects, and such lesser projects as are deemed sufficiently sensitive or contentious. For projects with special concerns, it may be appropriate for the Chair to coopt CDS to assist with the analysis of trade-offs, and the relevant Service Chief.

Supporting the DCC, we see a need for competent staff work but we do not see a need for the standing committees we have now (the Concepts and Capabilities Committee, the Force Structure Policy and Programming Committee and the Defence Source Definition Committee), although any of the DCC members may wish to convene groups of appropriate advisers to look for new ideas and to ensure that the wider concepts are fully explored.

It is our view that the Capital Equipment Program and the major projects within it are so fundamental to the future of Defence that they should be considered regularly by the DMC.

We believe that, under these arrangements, there would be benefit if the CDA were responsible for developing the cash flows and project cost estimates and for approving these in the Organisation's not yet approved program of Major Capital Equipment projects - the Pink Book. This we believe will improve on current arrangements as the CDA is responsible and accountable for the delivery of projects and for the management of the Government approved capital acquisition program.

As a key part of the planning and priority setting mechanism, the DEPSEC S&I must retain responsibility for managing the Pink Book, and as Chairman of the DCC, for setting priorities within it. The management of the Pink Book would benefit, however, from the DCC routinely reviewing the combined investment funding, including the separate programs for approved Capital Equipment (White Book) and Capital Facilities (Green Book) projects, for opportunities to adjust between them.

Acquisition

The acquisition activity is disproportionately important in Defence, not merely because it spends the largest single discretionary sum of money, but also because what it buys forms the backbone of the ADF and determines its military capabilities for decades. The effectiveness of the organisation is overwhelmingly more important than its internal efficiency because poor procurement can cost far more, initially and over the life of the purchases, than any possible internal efficiency savings. Efficiencies are, of course, important in their own right, provided they don't adversely affect effectiveness.

Procurement of new military equipment is a particularly complex task: not only is the equipment large and complex in itself, but it is often deliberately beyond the leading edge of current technology (noting that a small technical edge can often give a disproportionately large military advantage). Government procurement requires fair and open access and public accountability which, while absolutely appropriate when taxpayers' funds are involved, precludes some of the practices of the private sector; and the range of procurements (ships, vehicles, aircraft, missiles, communications and computers down to routine goods and services, such as travel and office supplies) is far wider than any single company, except perhaps the largest of the diverse multi-nationals. At some \$2400m per year, it is also very big business, where small errors translate into very large dollar losses. It is essential, therefore, that the procurement organisation has access to the latest approaches and techniques and be thoroughly professional in its work.

Some of the procurement task can be outsourced to specialists in areas such as legal, technical and project management advice and provision of support services, such as quality assurance and engineering evaluation. The advantages can include more professional advice from the wider experiences such providers can have across the whole of the economy beyond Defence, and lower costs if the workload fluctuates, as they have other income-earning activities to turn to when Defence does not need them. The core procurement task, however, will inevitably be internal and must include the "wise-buyer" skills, as well as managing the outsourcing.

All of these concerns point to the need for a particularly expert workforce in the core disciplines of procurement and a high degree of flexibility to deploy that expertise to best effect.

Our perception is that while we have much of this in the current Australian arrangements, institutional barriers have prevented Defence from going as far as it should and from gaining very substantial further effectiveness and efficiency benefits. Our principal concerns are as follows.

As we described earlier in this Report, the concept underlying most Defence organisations around the world, including ours, is that the capability development staff set the specifications and the acquisition organisation then buys to the specification. This rarely happens in practice. First, the acquisition people become very knowledgeable about what is likely to be available (advanced technologies as well as specific equipment) in their area of expertise and they are (and should be because they will be held accountable) better placed than anyone else in Defence to estimate what it will cost. They therefore should make a significant contribution to the specification of requirements and the assessment of affordability.

Second, during the course of a project, there will be many small (and sometimes some quite large) variations to the project offered by the contractor, which require assessment for their operational performance, risk and price consequences. The larger ones may go back to the operational requirements staff for assessment, but smaller ones will usually be resolved within the project team. Finally, the equipment must be handed over to the operators and maintainers in an orderly fashion.

All this suggests that military staff with recent operational and support experience in the relevant systems are essential to equipment project teams. Such military staff are invariably more expensive than equivalent civilian staff and because they stay for shorter periods and spend most of their careers outside acquisition, are less expert in the pure acquisition aspects. These factors set the bounds on the proportion of military and civilian staff. At present that proportion of military staff stands at some 30 per cent, which we believe is too high. The UK proportion was 15 per cent heading down to 10 per cent. With much less indigenous development and production in Australia than in the UK, we expect less requirement for military expertise, which suggests that 10 per cent here would be an acceptable interim target.

So far as the military staff in the acquisition organisation are concerned, we believe that there should be a firm rule that, for Colonel (equivalent) and higher levels, a posting to the Acquisition Executive will only be considered if the individual has been in the organisation at least once before at lower rank. This should help to provide the management of the Executive with a benchmark on which to judge their likely expertise.

More generally, we believe that the CDA should be the employing delegate for everyone employed in the Acquisition Executive, as, for example, is the CDS in DSTO. CDA should have the money, and the Acquisition Executive staff should send off to the Personnel Executive advice on pay, leave and other personnel matters. Clearly, CDA must consult with the relevant Service on promotion, timing of postings, availability for military training and so on, and give clear forecasts each year, on a rolling three year basis, of how many people, by rank and specialisation, the Acquisition Executive will need from each Service to allow the Personnel Executive to plan in an orderly fashion. This arrangement should apply to all Program Managers.

Training, particularly for the longer serving civilians, in all aspects of acquisition, including contracts, project management, Government and company financial conventions and systems, and risk management techniques is essential. The bulk of it can be contracted out from a small central cell created for the purpose, who would also deliver that training that is best provided internally.

Presuming we have well trained, experienced people, the next issue is how to organise them. Along with most other nations, Australia has moved away from matrix structures to project management. This is a view we entirely support and believe it should be further developed by including in the project teams such expertise as quality systems, finance and, particularly in the definition and hand-over phases, logistics. All the members of a project team should operate on a single computer network, where they share common financial, schedule, contracting and other data for the project. All members of a project team must be collocated.

Above the project teams, we have traditionally organised into Navy, Army, Air Force and other projects, the first three of which have been closely associated with their principal Service customer. While heavily customer oriented and convenient for staffing, this is far from the best way to organise acquisition. The most important common factors between defence acquisition projects are not the customers, who can be accommodated directly, but the suppliers (individual companies) who must be well known to the Executive, the supply characteristics (e.g. equipment cycle time and time for new generations of equipment to emerge, the extent of competition locally and internationally, the extent of sub-contracting and software intensity), and the technologies involved. It is much more important, for example, that all helicopter or radio purchases are grouped together to learn lessons, than the three Service areas each purchase their own.

This suggests to us that the Acquisition Executive be reorganised into functional groups. There are several ways of doing this, which will probably change over time as the balance of projects changes. We suggest something along the following lines:

- Surface ships
- Submarines
- Land vehicles, guns and engineering equipment
- Aircraft and related systems
- Communications, command and control and electronic warfare
- Missiles and ammunition

They should be staffed on the basis of ‘best person for the job’, military or civilian, and there should be active encouragement for, and no barriers against, people transferring to projects in different areas at appropriate times.

We believe further that, with Service personnel already embedded to ensure that whatever is acquired meets the military requirement and is handed over for operation smoothly, the most important synergies for the project teams are with other teams to share contracting, project management and other acquisition experience. We therefore believe that there would be considerable further savings and effectiveness gains if the Acquisition Executive as a whole could be collocated. We have not analysed this in detail, but on the basis of comparisons with industrial and overseas experience, we would be surprised if savings of some 15 to 20 per cent overall were not possible.

We are aware that, at various times in the past, and potentially in the future, major shifts in acquisition practice have been and may be made. The move to project management and to cost schedule control systems are two past examples, and systematic risk management and through-life support specifications might be good future cases. Acceptance of such changes in practice requires first the assembly of doctrine, policy, practices and guidelines; then its promulgation throughout the organisation directly and through training courses and seminars; and finally its routine practice by all concerned. We commend the idea of small, finite-life task forces for such jobs.

One of the first areas for such examination should be the acquisition of software intensive systems, of which modern, highly capable combat systems are a particular example. The paradigm used to procure hardware through a systemic (and fairly rigid) set of risk-reduction phases needs major modification, perhaps even a new paradigm, to cope with such systems, where development costs can exceed production costs and continuous updates are technically and

financially feasible, and militarily of enormous advantage. New procurement approaches are starting to emerge around the world and we need to keep up at least.

With all these changes, we believe that the Acquisition organisation will become a little more independent in how it undertakes its task, but much more able to be held accountable for its performance. We think it is appropriate to emphasise this change by a change of title to the Defence Acquisition Executive.

With the Acquisition Executive much more in control of its own actions, we believe that there is more scope than is currently used for such procurement techniques as post-tender negotiations, target-cost incentive fee, value engineering and other techniques that encourage efficiencies and share their benefits, new paradigms for purchasing software intensive systems, and shared risk management. Savings in procurement costs of projects, based on experience elsewhere, may be as much as 5 per cent, but these will be achieved as an integral part of the projects, probably swallowed up within the project in the usual rises and falls and in optional enhancements, and difficult to break out reliably for each project. We therefore propose that they be included as a wedge within the Pink/White Book rather than claimed directly and reallocated elsewhere.

Industry Policy

At the start of our Review, we had not intended to include in our Report a separate discussion of Defence Policy for Industry. That we have written at length on the subject in this Report is a reflection of requests for us to do so.

In considering how Defence relates to industry, the first thing to note is that Defence purchases goods and services from a great many sectors of the economy - transport and storage, communications and financial services, as well as manufacturing. In many of these, including many parts of manufacturing, Defence is just another customer and behaves in a commercial, mostly competitive way. This is entirely appropriate, and an important implicit thrust of this Review has been to exploit, as far as possible, the civil infrastructure and markets, which mostly include their own competitive stimuli for efficiency. Indeed, it is our belief that a fundamental element of defence policy for industry should be to use the widest possible range of industrial support in peace because that will surely be necessary in war.

Defence should involve local industry, using competition and all the other tools at its command (mainly the timing and structure of demand) to ensure that its suppliers are seeking the maximum possible competitiveness through innovation and other efficiency measures. In peace, this is necessary to free up as much money as possible for equipment, training and other preparations for war, and in war it is even more essential to ensure that the nation's total resources generate as much force as possible or, in smaller wars, that there is as little disruption to the economy and standard of living as possible. Ideas that defence is so important that inefficiency and waste (usually not so defined, but amounting to the same thing) should be tolerated are ill-conceived and damaging.

There is, however, a narrow sector, in which Defence is the major, and in some cases the only, customer. As far as possible, we should discourage such specialisation. The Australian defence market is too small to provide continuity of production, let alone sufficient new design and development work, for such firms to remain viable without subsidisation in most areas. Export markets, the alternative source of defence work, are extremely competitive and our domestic base is such that we should regard export orders as windfalls rather than reliable income sources in most areas. Commercial work can buffer against fluctuations in defence orders and provide new, continuously upgrading civil technologies that can be adapted for defence purposes. By not over using military specifications and being more flexible in timing, we could hope to make it easier for such specialist defence companies to access civil markets.

Many of both the mixed civil/defence and specialist defence suppliers have natural advantages in that they are here (thereby avoiding transport costs) and know local conditions best (thereby knowing what needs building or adapting for local conditions and often having specialised and become extremely competitive in those adaptations). In some cases, such as local distribution and storage, they can really only be local operators. In others, such as specialist sonars and electronic warfare equipment, local design and production need to build on at least an awareness of the best practice from overseas. In all such cases, open international competition, which has overwhelming advantages in terms of access to far larger research and development bases than we could ever aspire to and, often, economies of scale in far larger production bases, will have a strong local component based on competitive merit.

There remains, however, a small part of industry where defence would benefit from local capabilities that would not easily survive under open international competition, and which will need subsidisation (words such as assistance, support, protection and preference are usually used in place of subsidisation, but

they boil down to the same thing). This can be quite proper and appropriate, but there are two principal dangers. The first is that Defence will inadvertently subsidise things that don't need it, thereby reducing the resources available for real defence priorities. The second is that experience has shown overwhelmingly in both civil and defence markets that subsidised and protected companies invariably become less innovative, efficient and competitive than their more exposed counterparts, sometimes staggeringly so, thereby also reducing resource availability for alternative priorities.

It should be pointed out here that the defence interest is in industrial capabilities (e.g. equipment repair, sonar manufacture) rather than the structure of the companies that house the capabilities. To state the obvious, Defence, on behalf of the citizens and taxpayers of Australia, does not owe company managements or shareholders a living and should certainly not be involved in subsidising complete firms or activities in them that are not defence priorities. Nor should it confuse capability with capacity. Maintenance of an important industrial capability in Australia certainly does not mean maintaining it in every company that would like to have it, which would mean subsidising excess capacity and inefficiency.

These dangers and their avoidance can be illustrated in the two main historical approaches to sustaining specialised defence capabilities in domestic industry. The first is state ownership - the Government owns the means of defence production and directs work to designated sole sources without competition on the basis that they are 'centres of excellence'. This was the model created in Australia for much of the post Second World War period, despite being under a conservative Government. There was a more explicit state ownership model in the UK under Labour Governments, where the firms had previously been privately owned and had to be nationalised first. That remains predominantly the model in France to this day.

In all three of these examples (and others) the consequences were much the same. The state invested heavily in these firms' defence facilities, often giving them quite advanced capabilities and, at least as often, incipient excess capacity for any possible peacetime needs and most wartime needs short of a Second World War replay. They became test beds for Government employment and social aspirations, which inevitably translated into excessive staff levels and enormous rigidities to the efficient and effective deployment of staff. They became demonstrably uncompetitive in price and often delivery time, and less often in equipment capabilities and advanced technologies when they are finally produced.

The solution, which has been particularly strongly applied in Britain, has been to move to the second model, which is essentially free-market and puts all the means of production into non-Government ownership (often simply on the Stock Exchange) and deals with the resulting companies through open international competition, leaving the locals to find the areas where they have natural or other competitive advantages. After a period of adjustment, in which the enormity of the excess capacity and inefficiency that had built up was demonstrated dramatically in large scale closures and redundancies (not helped by the end of the Cold War and the associated reduction in defence orders), British defence industry found that, notwithstanding the strength of the (mostly American) competition, it was winning the bulk of the domestic orders, a significant share in sub-contracts of those it didn't win outright, and export orders each year roughly equivalent to the value of work for the British Ministry of Defence. Techniques used to protect particularly sensitive industrial capabilities (e.g. nuclear weapons) became less intrusive and more commercial.

The American approach has elements of both models. The Government owns and protects its arsenals. In most other areas there is open internal US competition, although contracts are sometimes awarded on other than "best value for money" grounds (e.g. ship building and repair). International competition is limited, often for "pork barrel" reasons; although unlike, for example, the Europeans, most protectionist decisions are transparent and challengeable. The US example is of limited relevance to Australia partly because its scale is so much larger, and partly because we simply cannot afford the degree of waste and inefficiency which the US imposes upon itself.

We note that President Chirac has announced an intention to move France towards the British model and has started with the privatisation of Thompson CSF; the free market model seems to be gaining widespread acceptance, even in countries with a strong contrary tradition.

Occasionally, the Scandinavian countries are cited as role models for Australia (Sweden was fashionable during the early days of the submarine project and Finland seems popular now), on the grounds that they have some apparent successes and are even smaller than we are. These countries are highly homogeneous societies with (mostly) strongly socialist economies, with a very high degree of Government intervention, backed by very high taxation and industry subsidies. Their strategic circumstances (threats, allies and geography) are very different from ours, as are their industrial bases and markets. While there have certainly been some impressive results (e.g. Swedish submarines and fighter aircraft), their cost, ultimate value in war, and long-term sustainability are less obvious.

Unlike the British change, which was prompted and strongly reinforced by the political philosophy of the Conservative Government, similar changes in Australia in the mid-1980s (such as the sale of Williamstown dockyard and corporatisation of Aerospace Technologies of Australia and Australian Defence Industries) occurred under a Labor Government. The outcome of very dramatic efficiency gains has, however, been a parallel experience.

We have laboured this issue in this Report because it is often poorly understood and it is easy to lapse back into some very expensive practices. We are also concerned because the process in Australia is only partially complete. It is our view that the process of privatisation now needs completing with the sale of the Government's equity in Australian Defence Industries (ADI) and the Australian Submarine Corporation (ASC).

The market for the means of production of defence goods and services, of course, is quite separate from, but heavily influenced by, the market for the goods and services themselves (where Defence is close to a sole buyer). Some of the Australian companies are in private and some in public (stock market) hands. We can expect strong bidding for both enterprises from both local and foreign defence firms, which we should encourage, first, to get good prices, and, second, to ensure we are presented with a wide range of technological and management options.

As with any procurement, we should not interfere with or direct the market; rather we should set any prior conditions (e.g. an ownership and management structure that can be cleared for Australian security classified work) and decide when and how (e.g. together or separately, by tender or by float for ADI) to sell. In our view, given the difficulties and uncertainties of export markets, it would be highly desirable to retain a degree of local competition, which separate sales are more likely to encourage.

Having privatised, the issue for small and medium size countries is retaining capabilities of particular defence importance without waste. The tools remaining are (and should be) confined to competition and demand manipulation - essentially defining what Defence wants to buy and when. The 'what' is important and can be very potent and efficient, particularly if it is oriented to outputs. Requiring the potential seller (often foreign) of a new piece of equipment to define and underwrite (including price) how it will be repaired and maintained in Australia as part of a competitive tender gives a very different result from asking an Australian company to make an offer after the contract has been awarded, when all the incentives on the seller are contrary. The 'when'

is equally important because Defence can bunch its orders to freeze out the smaller locals by causing enormous discontinuities and costs, or it can smooth the orders out, thereby providing continuity benefits to costs and prices and better opportunities for the locals.

Experience in the UK is that demand manipulation generally is sufficient to retain capabilities and it is our view that it should be here also. The alternative is to designate industrial capabilities or technologies, which equates to telling companies how to do their business (instead, we should specify outputs and leave it to them to determine which technologies they need and how to get them), and which, more importantly, implies a willingness to subsidise, and leads, however slowly, to the problems outlined earlier. A guide to which general areas of technology seem most likely to be needed is as far as we should go.

In all of these approaches (and others) competition is fundamental. It is tempting to believe that engineering professionalism and some special contracting techniques (e.g. transparent competitive sub-contracting) can be used to apply continual pressure for efficiency gains in sole source conditions or at least limit the extent of the monopoly, but experience over very long periods and in a very wide ranges of circumstances has shown this to be a very poor second best. Competition against a peer organisation encourages not only engineering excellence, but also new, more innovative investment, calculated risk taking, more advanced out-sourcing and related strategies, alternative financial arrangements, and all the other possible sources of competitive advantage. The basic rule in all defence procurement should be to establish as open a competition as security considerations will allow. As we have illustrated, however, the competition should be based on through-life cost of ownership, rather than only the cheapest initial acquisition cost.

Having outlined a general philosophy for policy for industry, it is important to apply it effectively. The overwhelmingly dominant tool is the acquisition program, in which we include setting up the downstream support of the equipment. It is our view that each of the technology and supplier oriented acquisition units described earlier in this report should have a small cell which knows intimately the industry it is dealing with and can advise all the project teams in that area on the viability, strengths and weaknesses of the companies and how the specifications should be written to allow them to bid equitably as primes or sub-contractors. At any one time we would expect the bulk of the officers in these cells to be allocated out in direct support of projects, where they work to

the timing and other priorities of the project head. We see value in a small policy cell as part of the Acquisition Executive. The consequence of this is that we see no need for a large central Industry Involvement and Contracting Division or for separate regional groups.

After acquisition, the most significant “users” of industry policy are the logisticians, principally for the purchase of spares and repairs, in which we include all maintenance. We have argued earlier that there are substantial benefits in setting up the downstream support arrangements as part of the initial competition and that this is best done by defining the outputs we need and allowing industry to decide how best to meet them under competitive conditions. The logisticians clearly need to be intimately involved in these considerations and should have officers of their staff seconded into the project teams to ensure it is done properly and well.

Even where such techniques work well, it will not always be necessary or desirable to forge exclusive links with, or through, the original supplier. Often, for example, it is useful to procure spares through the prime contractor, but on other occasions, better service and prices may be obtained if spares are “broken out” from the main contractor and procured independently, either directly from the original supplier or through competition. Spares breakout can be a very useful tool for embodying later improvements, including technological enhancements, as well as keeping pressure on prices and deliveries.

Similarly, while it invariably is wise to seek a baseline for subsequent through-life support as part of the prime contract competition, our right should be preserved as far as possible (e.g. through acquisition of the necessary intellectual property) to go elsewhere if desired. Going elsewhere is often difficult because it requires new setting-up costs and a disability while learning, but even those can sometimes be overcome if the original supplier has so abused its subsequent monopoly as to become very costly and poorly performing. A partial competition at this point can work wonders.

The common thread of these approaches to logistics is to inject as great a degree of competition back into the procurements as can be justified by the costs.

We are concerned that, notwithstanding the military advantages in adapting overseas equipment to local conditions and selectively designing and developing some of our own, we do very little of the early development that would prepare Australian industry for such work. Given the uncertainties in scope

and timing of major projects, and the open competition for them, it is not surprising that local companies regard the risk as too high and will not invest their own funds in anticipation. In such circumstances, Defence would be wise to invest modest amounts in indigenous and collaborative development.

Some development work is done now through the Defence Industry Development program, which we regard as too remote and too loosely coupled to future military needs and specific projects. We would prefer to see these funds earmarked for requirements studies and development projects only, and administered by the industrial cells in the functional groups of the Acquisition Executive, with advice from the Capability Development staff and DSTO. We would prefer that, in letting such contracts, a contribution is sought from the bidding firms to pay for part of the work; the justification for this is the advantage the winner will have in the subsequent, much larger competition for the acquisition.

We see the potential for linkages between the research and development work in DSTO and these small development projects, but warn against early exclusive relationships with individual companies that might be structured in such a way as to compromise later major procurements. Even quite small inefficiencies in the projects themselves would swamp the benefits of the combined research and development.

There is, of course, always a risk that early involvement in preliminary research and development will predispose the scientists and engineers involved to favour their own solutions unfairly and to the detriment of the best outcome, or at least to give to other bidders the perception that they have. The industry cells will be expected to behave this way and that can be routinely allowed for. DSTO, in contrast, is expected to assist in an entirely objective way with evaluation and source selection, and it will need to guard its reputation accordingly.

These processes and the difficulties and compromises that they bring with them are common in other developed countries and are managed as best they can be because of the overall benefits they have been shown to bring. We think they are well worth a more concerted try here also.

The final aspect of Defence policy for industry is exports. We start from the position of Article 51 of the United Nations Charter, which allows every country to defend itself. It can do this either by building up its own weapons industry or by imports.

Proliferation of the means of production may be more destabilising and threatening than merely having limited quantities of weapons, all of which reinforces the legitimacy of defence exports. There are, however, limits which the United Nations prescribes, and responsible countries impose further limits to reduce proliferation, terrorism and, particularly, spread of the means of production of weapons of mass destruction (chemical, biological and nuclear).

Exports of defence goods and services can significantly bolster or sustain indigenous industrial capabilities, thereby increasing self-reliance and reducing costs for local orders. Not surprisingly then, the Defence departments of most nations actively support their industry's defence exports except when there is a real chance they will be turned against their own forces. It is usually left to the administrators of strategic and foreign policy to apply the brakes. This is also true in Australia and we see no need for change.

Legitimate exports of defence goods and services invariably require government-to-government agreement, not least because respectable countries will only sell directly, or indirectly through approved companies, to approved countries - not to individuals or companies as end users. As well as being the approving authority, the source government is usually a user of the goods and services and can be their best promoter, often in a fraternal way to a counterpart foreign Service, followed by training, logistics and other Service-to-Service support, which can make the sale far more attractive. Taken together with the interests in the outcome, this suggests that Defence should provide the necessary sales support to Australian industry. The best model for this is the British Defence Export Sales Organisation (DESO), which is part of the Procurement Executive. In our case, the scope for exports is considerably smaller, but we still favour a small dedicated unit, augmented as appropriate to the prospects at the time with military personnel. It might be appropriate, as it often is overseas, to recruit a marketing expert from industry to head the unit on a fixed term secondment.

While all this support is necessary and is justified by the benefits to Defence, it is invariably true that the main player is the exporting company itself, which identifies prospects and chases sales through its own marketing and sales staff, local agents, and relationships with local companies. With the Defence support and the trade and diplomatic support available from Embassies, we question the need for and cost effectiveness of spending \$1.5 million per year for the Defence Trade Commissioners and related staff overseas.

Science and Technology

A technological edge in warfare has been of disproportionate military advantage since time immemorial (the contribution of the stirrup to mounted warfare is usually cited). Clearly, technology remains fundamental today, but now spreads across every aspect of warfare and its supporting intelligence, logistic and other services, and in ways that change extremely rapidly, as new weapons and support systems are invented, or build on even more rapidly changing civil technology.

For small and medium sized developed countries this requires, as a bare minimum, sufficient scientific expertise to understand the technologies available and how they should be applied to best advantage. In functional terms, this means advising in the processes that set operational requirements and perform the acquisition, on the one hand, and monitoring the effectiveness of their use and assisting in devising new tactics and doctrine, on the other. These require scientists outposted to, or working in direct support of, the force structure and acquisition groups, and the Service operational units, respectively.

Underpinning such directly applied work, it is essential to have sufficient research work going on to keep the scientists up to date. In areas of particular or unique concern to Australia (operations in shallow water, wide area surveillance and special aspects of electronic warfare are examples, but there are others, many of which are sensitive), it is important to go further and create a research capability that can establish the fundamental science and then take concepts through development to operational service.

Clearly, in a country of this economic size, it is simply not possible to do this across-the-board - we are spending less than one per cent of defence research and development expenditure worldwide. This pushes us to a strategy of general background work in all areas sufficient to be wise buyers and users, complemented by leap-frogging over and filling niches in the vast body of overseas research of particular importance to Australia, for example, where we have self reliance requirements. This, in turn, requires access to the work of close friends and allies (particularly the US and Britain); to get such access we, not unreasonably, must have something to show competence and to trade, which we must do from our own research program.

Against this background, we looked at the way the principal military scientific organisation in Australia - the Defence Science and Technology Organisation (DSTO) - was structured and operated. While there are no doubt improve-

ments that can be made in the way DSTO works, we considered that the changes so far and the financial and authority arrangements are such that they can be left to the management.

We also considered DSTO's links within the Defence Organisation. A tool that is used elsewhere is "user pays" - i.e. the money currently given to DSTO would be given to DSTO's Service and other customers, who would task DSTO through small, simple contracts and pay on milestones or delivery. In such systems, some scope must be retained for the scientists to follow promising leads on their own account, which requires direct, untied funding to the organisation of, typically, 10-15 per cent. While we are aware that the application of this tool in the UK encouraged large scale efficiency changes, without anything like commensurate reductions in the science outputs, it does bring accounting and other management overheads, which are difficult to absorb at the much smaller Australian scale.

Any "user pays" system would have to take account of the fact that DSTO is not only a service provider but also a key component of the Defence Organisation itself. A consequence of this is that DSTO's relationship to other parts of the organisation is much more than that of a supplier to customers. We are therefore reluctant to recommend its imposition other than at the margins, but commend a closer look to see if it can be introduced in a simpler form that would achieve much the same effect.

Within DSTO itself, we have not sought to review what it does and its priorities, except in two areas. First, we believe it is very important that DSTO develop further its advanced systems modelling capability as described in the Capability Development section of this Report. Second, we believe that there is scope for carefully targeted development programs in industry, to which DSTO might contribute, as described in the section of this Report on Industry Policy. As part of this development work we believe that Defence should take far more seriously a program of concept or technology demonstrators, especially in the fast-moving high-technology areas. This will need DSTO's strong involvement and should include cooperating in and leveraging off similar programs being followed by close friends and allies, such as the advanced concept technology development program in the US.

Within the broad area of military science and technology, we became aware of the diverse and extensive trials and evaluation facilities in the three Services and DSTO. Our concern is that, to leave these as an integral part of their parent organisations encourages them to be regarded as a "free good" and probably

over and inefficiently used. We are aware that there are some proposals to contract out some of the services they provide, but would like to see more radical options progressed.

First, we believe that it should be a much more routine part of acquisition and repair contracts that the supplier prove the efficacy of the product, thereby encouraging industry to seek the cheapest form of test and evaluation - e.g. using a commercial test track under contract might be much cheaper than maintaining dedicated Defence facilities. Second, we believe efforts to contract out some of these services might be extended and accelerated. Third, while it may bring too many overheads to create a full user pays internal charging system, we would like to get as close to that as we can.

To this end, we believe that all the test and evaluation functions should be put as an integrated unit in the S & T Program. This unit would be responsible for providing those services, and would have a mandate to rationalise and contract out, provided it continued to meet the necessary levels of service.

Facilities and Long Term Force Disposition

While the Defence Force might be said to comprise the skills of its people and the capabilities of its equipment, these are embodied in actual people and machines, which must be housed and have room to exercise. The Defence Estate comprises land and buildings spread across Australia to a book value of some \$13.6 billion Gross Replacement Value. Occupying this estate is an expensive business directly, and has high opportunity costs from alienating substantial tracts of land (some 3 million hectares) from other purposes.

We believe that managing the Defence Estate is unambiguously a single, coordinated task, which should not be devolved other than for tenant responsibilities such as minor fitout and housekeeping. All land purchases and sales, building construction and maintenance or leasing should be managed centrally. There are essentially two reasons for this. First, estate management requires a great deal of expertise to deal with planning authorities, building contractors, real estate agents and the like (which, simple though it may sound, is in fact on our scale, anything but simple), and we are concerned that the organisation must be thoroughly competent and professional. Second, we should be looking at the Estate across Service and Public Service boundaries to get the best result for the organisation as a whole and to minimise alienation from other community uses.

In recognition of such concerns, the Facilities Organisation has long had a relatively high degree of centralisation. We believe we should go further and create a Defence Estate Executive responsible for all “building owner” functions and managed on a national basis. There is a perception in Defence that facilities are a “free good” and there is little appreciation of the real cost of owning and operating a large estate. Nor is there much incentive for property occupants to minimise these costs. Accordingly, we propose that a system of internal rents be introduced to change this culture, expose the full costs of ownership and encourage a more business-like approach to holding assets.

As well as how the Estate should be managed, we looked at what it now comprises. In the time available, it was simply not possible to do this comprehensively or thoroughly; the best we could do was to highlight some general features and some facilities that should be sold quickly to release money for other purposes and to reduce operating costs.

The dominant feature relates to the broad disposition of our combat forces. The Navy is well on the way to two-ocean basing at Sydney on the Pacific Ocean and near Perth on the Indian Ocean. It is not unreasonable to base the bulk of the fleet so far south, but there may be merit in building up Darwin to be able to accommodate the larger vessels as a transit or forward operating base. The future of Sydney Harbour as a fleet base may itself be an issue in the longer term, but meanwhile we see its location as a dockyard as less desirable and increasingly unnecessary as facilities are built up elsewhere.

The Army already has significant elements of its combat forces in the north, with the 3rd Brigade at Townsville and 1st Brigade at Darwin. Other units stage through the north on exercises. It has been put to us that this is enough. Certainly, it is more expensive to keep service men and women in the north, and we are sympathetic to the argument that Service people also require respite postings in the south. In due course this will no doubt limit further moves, but further consideration of whether the movement north has yet gone far enough seems warranted.

The Air Force is well settled at Darwin, Tindal and Townsville and has its bare bases across the north. More aircraft and personnel could be moved north, but it is more costly for both, and the Air Force argues persuasively that, having sufficient in the north to get experience of the conditions and their impact on combat, it is cheaper to keep the rest in the south.

If, indeed, the levels of combat forces in the north and west are about right, then the issue is what to do with the rest of the forces in the south. We have sought elsewhere in this Report to make major reductions in the numbers of Defence people, both military and civilian, in Canberra. We think it is right to get Defence people as near as possible to the fighting units as a matter of principle, as well as being a key part of any efficiency drive.

We agree that there are important efficiency gains to be made by consolidating into a smaller number of larger and where possible joint Service bases. These will often be in or near major cities to use the associated major sea, road, rail and air terminals. They need not be in prime suburban locations and we are attracted by the idea of Newcastle becoming a prime air base, for example. The future use of Holsworthy may provide an opportunity to consolidate civil and military air transport.

While the overall disposition of the ADF may be about right, we are aware of a major program of rationalisation already underway and planned. We fully support this activity, which we would like to see accelerated and extended by the Defence Estate Executive.

Logistics

Logistics is the often unsung but essential foundation on which all combat capability depends. At the level of the individual, it includes the provision of food, water, clothing and personal weapons; at the unit level, the provision of battle-ready equipment and consumables (e.g. fuel, ammunition). It starts in the area of operations aboard ship, in the battle line and immediately an aircraft has landed, and extends back through transport and storage into the fabric of industry. At the front it is an essential part of command of the overall force; at the rear it is done by contract, where the principal policy issue is the extent to which it should be done domestically or in the country of origin for imported equipment. It is essentially a business of trade-offs - for example, holding more spares and repairers forward gives quicker turnaround and less equipment unavailability, but needs more spares and repairers to distribute, which costs more and leaves less money for, say, deeper level repair; a single warehouse and distribution system has far lower overheads than a distributed system, but leaves the forces more vulnerable if, for any reason, it fails to function.

Our concern in this Review has been with the more rearward activities, which are called different things in the three Services reflecting their different ap-

proaches. Our perception is that, in general, each of the Services tries to run its logistics as efficiently as it can for its own purposes, although there are some weaknesses from time to time, which need addressing. Looked at from the point of view of the Australian Defence Force, however, there are very substantial overlaps and some gaps which, if corrected, could lead to some quite significant efficiency and effectiveness gains.

Once again, our aim is effectiveness and efficiency in war. As recently as the Gulf War, members of the coalition had no great difficulty in assessing equipment needs, and the priority with which they should be sent to the Area of Operations, within each Service, but had enormous difficulty in assigning priority between Services - Army equipment that should have gone by air was shipped out while Air Force equipment that could have gone by ship was sent by air on an opportunity basis. To correct for such inadequacies, extra equipment had to be sent, and the duplicates intercepted and returned at destination. Needless to say, there was a good deal of waste of scarce effort, freight space and equipment, all of which detracted from the forces' ability to fight. In the event, there was time to recover. Australia will need to guard against similar problems.

Our first concern with the provision of logistics services to the combat forces is with the effectiveness and efficiency within each Service, where we saw two major problems. The first is the confusion of the Logistic Commanders' primary tasks by the inclusion in their responsibilities of Base Administration and a variety of other tasks unrelated to direct combat support. We believe that there would be a much more productive focusing of aims and efforts if all this essential, but essentially unrelated, work were separated out and separately managed (in a later section of this Report, we argue that, having separated it from the logisticians, it can be looked at as a general service to the whole of the Defence function, rationalised and made vastly more efficient).

Our second problem is more endemic and relates to the fact that the accounting system, being based on Government Appropriation Accounting (essentially annual cash flows), deals very poorly with assets - once bought, assets are regarded as sunk costs other than for notional purposes. As a result, systems that routinely value assets and attribute to them all the costs of ownership are non-existent. This leads to some silly and expensive consequences.

During 1995-96, some \$4.2 billion of the non-explosive stores did not move from a total inventory of some \$6.8 billion. At first sight, this suggests quite large unnecessary holdings, but that is too simplistic. There are cases, such as

the F-111 aircraft, where Australia will have the only flying fleet in the world and we would be wise to stock up with spares of all sorts while we can still get them. In the event, some will not be needed, but all are good insurance. The fact that many of these spares did not move in 1995-96 does not mean that they will not do so in (say) 2005-06. On the other side, there are items in store which we use regularly, which are also available routinely from industry and for which we could quite comfortably rely on industry for supply. Overall, the Review's best guess (regrettably, in the time allowed, it cannot be more precise) was that a book value of \$1,000 million of the non-explosive stores could be dispensed with. What they might fetch in a "garage sale" is even harder to guess, as is the reduction in cost of ownership, though both could be substantial (particularly the latter).

Our second concern is for what might be achieved if we looked at logistics for the ADF together, rather than the three Services separately. Clearly, there are limits here - there are no obvious synergies between the repair and maintenance of an FFG-7 frigate, a Leopard tank and an F/A-18 aircraft; even at the sub-sub-contract level (e.g. hydraulics and electronics), where some common technologies are more likely, and where industry can sort out commonality benefits, we do not expect much. There are, however, very high synergies between repair and maintenance of different helicopters, radars, radios, commercial vehicles and small arms of the three Services, just to suggest a small selection.

We also expect substantial savings from combining the warehousing and distribution systems of the Services, as the Defence National Storage and Distribution Centre at Moorebank has shown so clearly. Emphasis now needs to be placed on developing an efficient distribution system to allow more savings to be made by further reducing warehousing and supply expenditure, in particular through a much greater use of industry for these purposes.

In all of these logistic areas, the Services have been considering and applying market-testing or contracting out under the Commercial Support Program. Experience here and elsewhere has shown that the scope for industrial involvement is increased and prices reduced when the work on offer is larger and where it has commercial counterparts, which can be used to spread overheads, smooth fluctuations and help fund investments in new technologies and other innovation. This suggests to us that we are likely to be better off looking for the combined logistics benefits first, then market testing, rather than making later attempts to combine separately market tested arrangements of the three Services. It would also facilitate market testing more of the management func-

tions (e.g. industry might be able to put together a convincing story that it could help with the management of the combined helicopter fleets while maintaining the appropriate customer-supplier relationships for the actual repairs).

We have dealt elsewhere in this Report with some of the other functions of the logisticians, such as the ways in which they should involve Australian industry in their business.

There are essentially two ways to get after these savings: assume that, in every case, one of the Services will be the dominant user and direct that Service to take over the function and the others fall in behind; or set-up an integrated organisation. The difficulties with the former are that there is an insufficient incentive on the Services to cause them to give up their autonomy (accrual accounting will make the opportunity costs clearer and may help); the devil with such arrangements is in the detail, which, without a driving authority to resolve it, can hold up even obvious arrangements for years (e.g. a joint ammunition holding deal has been four years in discussion and will take another two years to put into operation); and history provides few successful examples. We are therefore strongly of the view that an over-arching authority will be necessary, at least for a significant period, to establish the structures and garner the benefits.

Having come this far, we considered what sort of authority might be most appropriate. We were aware that something along these lines had existed in the 1970s and 1980s in the form of the junior Deputy Secretary position of Chief of Supply and Support, followed by the senior Deputy Secretary position of Head of Defence Logistics. In each case, the civilian incumbent had the financial delegations for the three Service logisticians and a mandate to look for commonality benefits. In the event, not much happened and the position was abolished. We could try again with a much clearer mandate and more authority.

Alternatively, we could create a military command position, which we might call Commander Support or COMSPT, analogous to COMAST, who together, with the Service Chiefs, would be COMSPT's principal customers. In both cases, we would wish to avoid creating a large headquarters with a doubling up of positions. We recommend the latter arrangement. A key objective should be to reduce the size of the organisations providing logistics and administrative support (some 21,000 people) by market testing and devolution.

Personnel

To state the obvious, the Australian Defence Force is essentially the people in it. As we argued in our consideration of the Strategic Setting and Higher Defence Arrangements, there are considerable differences in specialisation, which justify the separation of the three Services and of the Public Service. There are, however, also a great many commonalities.

To date, the approach to the personnel function has been to assume that each of the four “tribes” should manage its own people separately and independently unless there are overwhelming benefits to be gained from joint consideration. This policy has had the entirely appropriate effect of letting each Service and the Public Service exercise control over the careers of individuals in ways that maintain standards and encourage excellence. It has also led, however, to a great degree of quadruplication in the more mundane or service aspects of the personnel function.

The view that we have taken in this Review is that a great many of the personnel activities carried out in Defence, like any large organisation, are services that line management has no need to own, provided it has sufficient control over what they achieve. To take an obvious example: once a Service has decided, say, to promote and post an individual, then all the following actions, such as increasing pay, advising the old and new units, arranging a move out of one quarter, removal and move into another quarter, are essentially the same for all four groups, notwithstanding that some of the entitlements differ. We see no reason why a single group formed from existing staff, which are mostly based in Canberra, cannot handle these services for everyone, which would generate very substantial savings directly, as well as some pressure for greater commonality, which would generate further savings later. Currently over 2,500 staff are involved in specific military and civilian personnel management functions. This is far too many and the numbers should be reduced.

Initially, the integration of functions such as workforce planning, service conditions and the like and collocation of career management staffs should occur, and quickly. We propose that the merged groups be known as the Defence Personnel Executive, but recognise that once the arrangements and processes are more integrated and have been rationalised, the Secretary and CDF may determine that they could be devolved. It may be that the interim step could be quite short if there is enough willingness to move to common systems. Our estimates of the savings it would generate are at Annex C.

The single Services also individually manage health services and the rising costs of health care seen in the Australian community are also being felt in Defence. Responsibility and accountability for the provision of health services are fragmented and diffused throughout the Defence Organisation. Scope exists to improve the efficiency and effectiveness of deployable health support capabilities as well as in the provision of in-base health support. We believe that a single, integrated, joint health organisation should be formed to control all Defence health activities.

In arguing that it is right for the line managers of the Services and the Public Service to have control over the careers of their members, we are, in effect, arguing that they become largely their own employing authorities. Our preference is that the Chief of the Defence Force become the formal employing authority for all military personnel and the Secretary for all civilian personnel, but that they delegate most of these functions to the Service Chiefs, the Deputy Secretaries and the Heads of the new Executives.

For the Secretary, there will be an important issue of retaining a degree of parity and facilities for interchange with the rest of the Public Service.

The most fundamental role of an employing authority is to decide how much to pay the organisation's employees to reward, motivate and retain them, on the one hand, and how much the organisation can afford for payments to its employees, on the other. Salaries are, after all, costs, which, if they increase, must be accommodated in an essentially static budget by fewer employees or cuts elsewhere. The individual (in this case the two individuals) responsible for running the organisation are uniquely placed to make the necessary judgments, and there is a very important message to all staff in their appointment.

One of the first issues which the new employing authorities might tackle is that of allowances versus salaries. In past years, Defence has had external employing authorities and extremely cumbersome and demanding procedures to make any changes to classes of pay. Defence has tended to address anomalies in rewards by creating or changing allowances. This is not a cost-free exercise. For example, in 1995-96, almost 250,000 transactions were made to put people on and off the Army's Field Allowance for a total disbursement of \$15.4 million. Each transaction is estimated to have cost some \$5 to process (forms, clerical and computer time) compared to an average disbursement each time of about \$60. Surely a more efficient approach would be to designate positions as predominantly field or non-field and to pay those in field positions a standard increment.

While the Review Team had neither the resources nor the time to conduct (yet another) review of all the allowances, we believe that the general principle of payment for job type, rather than qualifications held, might be applied more widely and used to determine salaries for individual jobs, rather than use variable allowances so expensively.

Finally, we contemplated the benefits of greater turnover and streaming of personal in terms of efficiency and effectiveness. Here our preferred model is the United States Marine Corps, which we understand has a policy of vigorous turnover at junior levels, where personnel are young, have few ties, move readily and incur few costs for families and the like. Only those selected have the opportunity to go on, when they start to build up the higher personal obligations and costs. We did not feel able to recommend a general policy change here, but felt the idea well worth detailed consideration, along with other contemporary strategies for personnel management which recognise collaborative, rather than paternal, relationships between an organisation and its employees.

We commend particularly to the Department and the ADF the recent reforms to the Commonwealth Industrial Relations Legislation, which we see as an invaluable opportunity to simplify industrial relations in Defence.

As in any organisation, communications with staff at all levels is fundamental to a shared vision of where Defence is going and how it plans to get there. The Reith reforms encourage this to be direct from the line managers to all their staff. Having communicated what is to be done, there must be effective feedback on whether or not it is. The three Services have well developed personnel reporting systems which are thorough and comprehensive and, most importantly, are used routinely for promotions and postings. They are therefore reliably completed. In contrast, the Public Service reporting system is not used for anything important and is therefore poorly and unreliably filled in. We believe that this leads to poor line management relations with staff, poor and sometimes unfair promotions and postings, and much nugatory work. We recommend that a summary of recent annual civilian assessments be made available by the Personnel Executive, who should be the custodians of the records, to all interview panels.

Education and Training

The attention of this Review was drawn to the field of education and training, partly because it is so important to the quality of the Australian Defence Force and its support, and partly because it is a major consumer of resources directly in the cost of facilities and staff and indirectly in the time taken by people who would otherwise be engaged in operations.

In our consideration of this area, we started with the assumption that, at the very least, Defence Force personnel must be fully trained and experienced in tactics, doctrine, equipment, technologies and administrative skills appropriate to their particular positions. That is generally made easier and the results are better if the individuals already have a good level of education and can continue with further education. We are also seized with the importance of education, commensurate with rank or level, to the wider relationships of the Defence Force with the community and in strategic assessment.

In peace, the fundamental role of the Armed Services is training; indeed, one of the factors acting against maximising efficiency in peace is the fact that most military postings are part of a career progression for the individuals, which has them continually learning new skills and adding to experience. The theoretical three year posting cycle is enough to learn a new job thoroughly, to do it adequately, at least in the second and third years, but not enough to make more than a marginal contribution to its development. It is here that the concept of structuring for war and adapting for peace has its greatest peacetime downside.

Not surprisingly then, each of the Services has developed an extensive training structure, which is kept under review for changes in possible theatres, equipment and techniques. While, as in most other areas of this Report, we can point to some inefficiencies and weaknesses in the individual Services and the Public Service, that has not been our main concern; rather we have looked again for the extra efficiencies we can expect from the whole of Defence

During our Review, it rapidly became apparent that much of the training of support Service personnel has a high degree of commonality: military police, cooks, medical and legal staff, musicians, mechanical and electrical trades, intelligence and clerical staff, to suggest just a few. In each case, there are Service-specific aspects, which must be covered separately, but we see no reason why the common skills should not be taught together. Our main motivation

for this is that the training overheads in buildings, equipment and teaching staff are very high and Australia does not have sufficient scale to afford separate institutions.

We think that unless there are compelling reasons to the contrary, which we find difficult to imagine, all basic non-military training should be merged across the three Services and the APS, contracted out to recognised civil institutions, and then topped-up on-the-job. This would free up a significant number of military personnel for other duties, release significant infrastructure for other purposes or sale, and develop closer links between Defence and the community; our estimates of the cost savings are at Annex C.

We are similarly concerned with the education infrastructure. The Australian Defence Force Academy (ADFA) is a magnificent, but expensive, facility in its buildings, equipment and staff. We believe it should be used more extensively and favour making it more available to all members of the ADF and to Defence and other civilians to undertake mature age, full-time and part-time studies. Defence should clarify its requirements from ADFA. Other officer training institutions have developed and been sustained in relative isolation. We believe that there are substantial benefits to be obtained by managing officer education as a single process, and for there to be a greater emphasis on joint officer education. We have been unable in the time available to make specific proposals, but believe the potential for savings and a better product is substantial.

We believe that the various higher level courses should be merged for their common elements across the Services and draw on common overheads. Merging and collocating the three Service Staff Colleges, probably in Canberra, could be done quite quickly. Similarly, we recommend merging the administration of the Joint Services Staff College and the Australian College of Defence and Strategic Studies. There is a strong argument for retaining these high level courses in Canberra - they have a substantial Government component and top level lecturers from Government are much easier to get on their home ground.

As in other areas, we have been concerned to put in place a structure and incentives to ensure that the cross-Service considerations and contracting out are given a fair run - there are large numbers of people with a vested interest in the current systems, who could be expected to resist change strongly at the most detailed level. At the very least this, if allowed to happen, will slow down the flow of benefits. We have been reluctant to create a Joint Training Command or an Executive, which would cover all three Services and the Public Service,

because we consider it should be unnecessary once the new approach is in place and it would not be appropriate for the many specialist training facilities run separately by the Services. Training and Education policy development responsibility needs to be assigned, as does responsibility for implementation of the recommended joint education system. We believe those responsibilities should be given to the Commandant, Australian Defence Force Academy in consultation with the Rector, University College, UNSW.

Administrative Support

All organisations must administer themselves; most regard this necessary task as an overhead and seek, as far as possible, to minimise the people and funds involved. In Defence's case, it is far from clear that a real effort has gone into minimising administration at either the in-Service level, or more importantly, for the three Services and the Public Service together.

At the joint level, take the case of Darwin, where we have operational troops of all three Services. They are administered by three separate cells at HMAS COONAWARRA and other RAN establishments (over 200 personnel administering about 720 RAN personnel), at NORCOM and Army establishments (more than 200 personnel administering about 2,500 soldiers) and at RAAF Base Darwin and other RAAF establishments (almost 400 people administering about 1,600 RAAF personnel). Civilian staff are also administered separately. It is quite clear that joint administration would be entirely feasible and would give immediate substantial savings. We understand that similar conclusions can be drawn universally.

Further savings are obtainable if, as well as the administrative task, the administrative systems of the three Services and the Public Service could be brought into line. There are no fundamental reasons why this could not be done that we can see, although we detect vast resistance to what we believe is common sense.

These are, of course, services that must be provided, but, like many others, need not be owned by the operational units. We therefore propose the creation of a Defence Administrative Support Executive, which would take over, then radically rationalise, the central and regional administrative support of the ADF and the Department. We believe that the best results are obtained when administrative staff are closely collocated with the people they serve, which inclines us to abolish the Regional Defence Centres and move these functions out of high cost, central business district, general purpose office accommodation.

A particular area of administrative support is that of legal services. Defence has effectively three categories of legal services: the Law of Armed Conflict (including Rules of Engagement); military law, which relates mainly to inquiries and courts martial; and civil law, which relates to all the rest and includes commercial law in areas such as contracts, land holdings and industrial relations, and legislation, which includes drafting regulations as well as Acts and treaties.

We see the first two of these as a military function and regard the employment of lawyers by the three Services to undertake these functions as entirely appropriate. We see benefit in closer cooperation between the military lawyers of the three Services and propose they be reorganised into a single legal service with three Service branches. We see considerable benefit in continuing to use reserve personnel in this role to augment the small cadres of permanent staff.

Conversely, we see no benefit and considerable cost in using military lawyers for civil law activities. Equally, except in areas peculiar to Defence, we see little need for civilian Defence lawyers employed as Public Servants; this is pre-eminently an activity that can be market tested.

Information Management

The management of information is critical to the successful conduct of military operations. Furthermore, the nature of military operations is changing such that significant advantage will be achieved through the creative, timely and decisive use of information. Information management is equally important to the logistic, administrative and other activities supporting military operations.

We discovered from the difficulties we encountered throughout the Review, and from the strongly voiced complaints at all levels, that Defence cannot provide its managers with information in a form and manner to inform decisions adequately. Too much of the available data is fragmented, irrelevant or incomplete, and is overly focused on inputs rather than outputs.

While this problem is not unknown in commercial organisations, it is particularly prevalent in Defence because of the difficulties in measuring outputs that we touched on earlier in this Report. It is partly a result of the systems in use, but mainly reflects a failure of senior managers to consider seriously what needs to be measured and what information they need.

With the exception of the acquisition of major command, control, communications, computers and information warfare (C4IW) capabilities, each Program currently develops information systems in response to its own needs, and we believe that this remains entirely appropriate in terms of each funding its own requirements. In the past, however, while this approach has generally met the immediate needs of local users, it is not compatible with the overall corporate requirements of the Defence Organisation; it does not ensure the most cost effective use of resources.

A Defence Information Organisation is needed for drawing together policy and planning; operations support for in-service systems; development of new capabilities; and management of the communications infrastructure. The medium term goal for Defence should be a single Information Management Organisation which combines operational and administrative systems. The scale of current deficiencies and challenges concerning Defence management of information identified by the Review would, we believe, preclude this approach in the short term. Although we consider that operational and administrative systems should be treated together, initial division of these functions will enable a more effective redress process to be initiated by Defence.

Summary of Savings and Changes

All of the foregoing changes dictate major alterations to the existing functional structure of the Defence Organisation. We have illustrated our idea of what the new functional structure should be at Annex D.

This Report has outlined only the essential arguments and the broad features of the changes we propose. In an accompanying report by the Secretariat, greater detail is given of some of the specific changes. Underpinning that report is a very large volume of analysis, which has enabled us to make more detailed estimates of the likely savings.

We must stress that our estimates necessarily have a degree of imprecision, which we have recognised by classifying them as “estimated” and “potential”, respectively. We have however insisted that in drawing up these estimates, a quite conservative approach should be taken to the numbers involved. Of course, for those opposed to change, all measures and estimates may be challengeable. For our part, we are confident that overall levels of savings listed in Annex C are quite attainable and should be capable of extension once implementation is under way.

In total, we estimate savings of over \$500 million as a one-off and we are confident that mature annual savings of at least \$770 million are achievable with good prospects of reaching annual savings of about \$1,000 million. At some ten per cent of total expenditure, this is, we believe, an adequate result from a review of this kind, which is really only a starting point. Corresponding staff reductions are expected to be some 4,700 military and 3,100 civilians, with the majority of those military positions expected to be recreated in the combat forces, while the civilian positions will be lost. A further 12,900 positions (including some 7,000 military and 5,900 civilian) will be subject to market testing. Some of the one-off savings could fund transition costs.

The key findings and recommendations identified by the Review are at Annex E for ease of reference.

Implementation

During the course of this Review, despite general enthusiasm for innovation and change, we have identified some serious points of resistance. In part, this is the natural response in any large organisation, which looks for stability in its basic structures, on which it can then innovate at the margins. In Defence's case, however, there is a further level of resistance which stems from the notion that each Service is being held in trust for future generations. No senior officer wants to go down in history, even if it is only oral history within one Service, as the individual in charge when changes were made that might be seen later to have adversely affected the Service, and might even go wrong. The resistance to change at the higher levels has been both within Services and the Public Service and, even more, between Services.

At the same time, we have been impressed by the demand for change at the lower levels. The fact that nearly all of the suggestions for efficiency improvement in this report originated in Defence is clear evidence of that. The issue is how to release this pent-up enthusiasm for change.

Throughout this Review, we have been seeking to apply the three usual techniques for encouraging change. The first is to provide financial incentives. The program budget structure was meant to allow the Services to switch money between activities (e.g. from support to flying hours) to provide an incentive for efficiency. Its effect within the Services has been limited and it appears to have had almost no effect at all across Service boundaries; indeed, by encour-

aging spirited defence of Service programs, it may have been a disincentive to cross-program cooperation. We think there is some more scope for this approach.

The second is to create new structures that have a mandate for change. This can be done either by changing the existing structures permanently, or by imposing a change structure over the top of essentially what is there now. We have suggested both approaches in different parts of the organisation. Predominantly, we have recommended the creation of strong cross-Service structures to force efficiencies and effectiveness improvements. We are ourselves uncomfortable with the apparently centralised nature of some of the arrangements we have proposed, and we accordingly regard them as temporary. They are, however, unavoidable if the gains are to be made in the short-term, by aggregation of like activities and then vigorous downsizing and devolution.

The third is to change the people for individuals more inclined towards, and more accustomed to managing, change. While there is some scope here, the unusual characteristics of defence limit the potential pool of alternatives, particularly in the military positions. There is little doubt in our minds that a judicious mixture of all three will be required.

To state the obvious, taken all together, the changes recommended in this report are substantial and will require a concentrated effort by all concerned to implement successfully in an acceptable timeframe. We believe that the detailed assessment and preparation of an implementation plan should take no more than 3 months, and the aim should be to have the bulk of the organisational changes made over the next 2 to 3 years. We have two suggestions to ease the process.

First, while we recommend (quite obviously) using the line management for implementation, we suggest the creation of an Implementation Team comprising a selection of members of the Review Teams to advise and assist in the early stages, which would then reduce to a smaller monitoring group once implementation were underway. The Implementation Team would work with line managers to define in detail how the agreed changes were to be made and set firm dates and levels of savings of people and money, which the line managers would then be held accountable to achieve. The Implementation Team should report to CDF and the Secretary.

Clearly, as the top of the line management structure, the CDF and the Secretary must be responsible to the Minister for implementation, delivering the savings and their reallocation to higher defence priorities. The CDF and Secretary must lead the changes and have full ownership of the new organisation. Their leadership role will be pivotal to the success of the Review.

Second, we are well aware that much of the proposed savings can be eroded by poor transition planning. Changes of the scale we propose will inevitably require substantial redundancy programs; however, redundancy payments represent wasted money to the organisation and should be avoided if possible. Left solely responsible for their own areas, line managers will declare redundancies and hire new staff independently of each other. We propose that a small, special group be created in the Implementation Team to coordinate personnel movements and liaise with personnel authorities. Once the Defence Personnel Executive is set up, the group should transfer to become a part of the Executive for as long as it is still needed. Setting up the group in this way will be important because the personnel authorities will themselves be in a state of reorganisation and significant staff reductions, which is likely to be a distraction at best, and may give rise to perceptions elsewhere, however unfairly, of preferential treatment.

As in any major change process, implementing this Report will be greatly facilitated if a clear vision, including the reasons, are articulated from the top and, in putting together the implementation plans, line managers communicate extensively and openly with all staff in their areas who will be affected. On past experience, at one end of the spectrum, some staff will be hostile, while, at the other, some will throw themselves into the task and offer positive suggestions. The latter, of course, should be harnessed, but everyone in the area should be given an opportunity to contribute to aspects that affect them at their level.

We are less convinced of the value of consulting widely on the overall plan, but recognise that there may be prior agreements with the unions that should be respected.

Throughout our Review, we have been concerned to support the early efforts in parts of the organisation to devise quantifiable measures of output and quality. This is a common strand in the management of most large organisations, but is more difficult in Defence because of the problems of measuring the final combat outcomes. We believe it will be important generally for the future management of Defence to apply those disciplines.

Conclusion

At the end of what has been for all of us involved in the Review a fascinating study, we have reached the following conclusions:

- The need to rebalance and strengthen the capabilities of Australia's Defence Force is paramount and pressing.
- Creating and practising joint force operations in times of peace will be essential to determining what needs to be improved and we must monitor the success of measures taken. Joint force operations may well become a particular strength of Australian forces.
- There is substantial scope for rebalancing our forces through redistribution of money within a static defence appropriation (although we doubt that will be adequate in the longer term).
- There is substantial scope for greater involvement of industry in support of the ADF, in a cost efficient and effective manner, to the benefit of both.
- There are specific areas, such as logistics, training and personnel, where a combination of joint and lead-Service approaches, and a general clean-out, offers the prospect for very substantial savings and ongoing efficiency and effectiveness gains.

In the process of seeking efficiencies, we found substantial institutional impediments to such reforms and to the management of the organisation generally, which need fixing if the organisation is to have the best prospect of fulfilling its role, let alone of getting the savings we have identified.

In many respects, we found the Australian Defence Organisation to be in good shape, with a high level of commitment to its primary function of the application of military force to our national security, and with an impressive record of reform over recent years. However, we also found some quite disturbing dysfunctions which are a central impediment to much needed further reform.

We believe that more fundamental change is essential for the future development of the organisation and its ability to sustain its own internal pressures for future effectiveness and efficiency. We think our proposals for 'cultural' change are even more important to Australian defence than our proposals for specific efficiencies and commend them to you.

Secretariat, sub-Review Teams and External Advisors to the sub-Review Teams.

Secretariat and Sub-Review Teams

Brigadier P. J. Dunn, AM, Military Head	Mr P. E. Hannan, Civilian Head
Mr R. C. Baker	Brigadier R. McCann, AM, OBE
Ms R. M. Bassett	Ms K-A. Moseley
Mr C. J. Birrer	Brigadier K. J. O'Brien, CSC
Mr F. W. Bleeser	Mr M. Pearce
Squadron Leader P. D. Brennan	Mr G. V. Raymond
Lieutenant Commander M. J. Buss, RAN	Commodore C. J. Ritchie, AM, RAN
Brigadier J. K. Campbell, AM	Mr J. Roach
Mr A. J. Capp	Mr B. Sargeant
Air Commodore P. J. Criss, AM, AFC	Commodore K. J. Scarce, CSC, RAN
Dr A. J. Donohoe	Mr D. C. Templeman
Mr A. L. Ellem	Air Commodore R. B. Treloar, AM
Air Commodore N. J. Ford	Colonel D. Tyers
Group Captain J. M. Hammer, CSC	Ms K. Urquhart
Air Commodore C. McK. Hingston	Mr G. Watters
Mr R. H. Houstein	Dr D. V. Wyllie
Mr K. G. Isaacs	Mr R. C. Wylie
Ms L. J. Jooste	Colonel G. Yacoub, CSC

External Advisors to the Sub-Review Teams

Mr John Allen, AMP Society

Ms Fiona Balfour, Qantas Airways

Commissioner Pauline Burren, City of Casey, Victoria

Mr John Crosby, Brencorp Properties

Mr David Flakelar, Woolworths Limited

Professor Wolfgang Kasper, University College, ADFA, UNSW

Mr Graham Kelly, Freehill Hollingdale and Page

Mr Peter Kirby

Mr Des Moore, Institute of Private Enterprise

Dr Helen Nugent, WESTPAC

Dr Dianna Olsberg, Australian Institute of Superannuation Trustees

Dr Mark Schapper, CRA Limited

Mr David Trebeck, ACIL Economics

Ms Sylvia Tulloch, Sustainable Technologies Australia, Limited

Mr John Woodall, Woolworths Limited

Officers of the Australian National Audit Office

Officers of the Department of Finance

Officers of the Department of Industrial Relations

Officers of the Department of the Treasury

Draft Directives to the CDF, Secretary to the Department of Defence and the Chiefs of the Navy, Army and Air Force.

Draft directive from the Minister for Defence to the Chief of the Defence Force

1. As the Chief of the Defence Force you are responsible and accountable to me for the efficiency and effectiveness of the Australian Defence Force. You are my principal military advisor.
2. You are to:
 - a. Exercise full command of the Australian Defence Force. You are to make arrangements for the exercise of command and control within the ADF in accordance with the provisions of the Defence Act.
 - b. Be jointly responsible with the Secretary to the Department of Defence for providing me with an annual assessment, or more frequently if circumstances warrant, of the strategic changes that are occurring in Australia's area of interest and your advice as to any adjustments to the structure, capabilities or preparedness of the Australian Defence Force that may need to be considered as a result.
 - c. Be jointly responsible with the Secretary to the Department of Defence to ensure that long term planning for the future capability requirements of the Australian Defence Force is undertaken and that such planning is translated into actions that are achievable within agreed financial guidance.
 - d. Be jointly responsible with the Secretary to the Department of Defence for the provision of adequate and effective intelligence to Government and its dissemination to appropriate levels of ADF command.
 - e. Ensure that the Royal Australian Navy, the Australian Army and the Royal Australian Air Force are together capable of providing joint forces for the conduct of military operations in Australia's region and elsewhere with allies and other coalitions of nations. The capability to skilfully undertake joint operations is to become a hallmark of the Australian Defence Forces.

- f. In conjunction with the Secretary to the Department of Defence, establish effective liaison with other Government Departments which contribute to the provision of national security.
- g. Ensure that the Australian Defence Force is efficiently and effectively administered.
- h. Ensure that all military staff are responsible and accountable to the Secretary to the Department of Defence for those responsibilities exercised by the Secretary.
- i. Submit to me proposals for promotion to Brigadier (Equivalent) and above after consultation with the Secretary to the Department of Defence.
- j. Establish effective relationships with the leaderships of other Armed Forces in support of national policies.

Draft directive from the Minister for Defence to the Secretary to the Department of Defence

1. As the Secretary to the Department of Defence you are responsible and accountable to me for the efficient and effective administration of the Department. You are my principal civilian advisor.
2. You are to ensure that the Australian Defence Force is fully supported in achieving its roles and missions. In meeting this requirement you are to:
 - a. Be jointly responsible with the Chief of the Defence Force to ensure that long term planning for the future capability requirements of the Australian Defence Force is undertaken and that such planning is translated into actions that are achievable within financial guidance.
 - b. Be jointly responsible with the Chief of the Defence Force for providing me with an annual assessment, or more frequently if circumstances warrant, of the strategic changes that are occurring in Australia's area of interest and your advice as to any adjustments to the structure of the Australian Defence Force that may need to be considered as a result.
 - c. Be jointly responsible with the Chief of the Defence Force for the provision of adequate and effective intelligence to Government and its dissemination to appropriate levels of ADF command.

- d. In conjunction with the Chief of the Defence Force, establish effective liaison with other Government Departments which contribute to the provision of national security.
- e. Ensure that the provision of service functions such as capital acquisition, scientific and technological support, facilities, financial management, corporate support and audit facilitate the Australian Defence Force's attainment of its roles and missions.
- f. Ensure that all processes under your direction accord with current statutory requirements.
- g. Ensure that all Departmental Staff are responsible and accountable to the Chief of the Defence Force for those responsibilities exercised by the Chief of Defence Force under the Defence Act.

Draft directive from the Chief of the Defence Force to the Chiefs of the Navy, Army and Air Force.

- 1. You are responsible and accountable to me for:
 - a. Corporate policy formulation.
 - b. Command.
 - c. Management of designated joint functions.
- 2. You are jointly responsible and accountable to me and to the Secretary to the Department of Defence for effective and efficient management.

Corporate Policy Formulation

- 3. To make best corporate use of your abilities, experience and knowledge, you are to:
 - a. provide advice to me on developments in military strategic affairs;
 - b. participate in the process of preparing strategic assessments and plans;

- c. participate in the development of force capabilities, preparedness policy, force disposition and facilities matters, particularly in respect of, but not confined to, single Service aspects;
- d. support me in the preparation, development, sustainment and command of the Australian Defence Force through the provision of single Service advice; and
- e. within overall policy guidance, initiate and contribute to international defence objectives through Service to Service relationships.

Command

- 4. You are to:
 - a. act as the professional head of your Service, and maintain professional standards, ethos, discipline and morale;
 - b. formulate single Service and joint doctrine for the combat employment and support of your Service as required by the potential range of Australian Defence Force operations;
 - c. manage your Service, including directing its staffing up to Colonel (equivalent);
 - d. provide training that satisfies single Service and joint needs; and
 - e. exercise full command of single Service elements and their preparation until assigned to joint commanders.

Management of Joint Functions

- 5. To achieve economies and efficiencies in service and support areas integrated, joint or single Service administrative arrangements are to be put in place. You will be given responsibility for designated joint functions. In addition, the Secretary to the Department of Defence and I will, from time to time, allocate specific corporate tasks to you to undertake.

Management

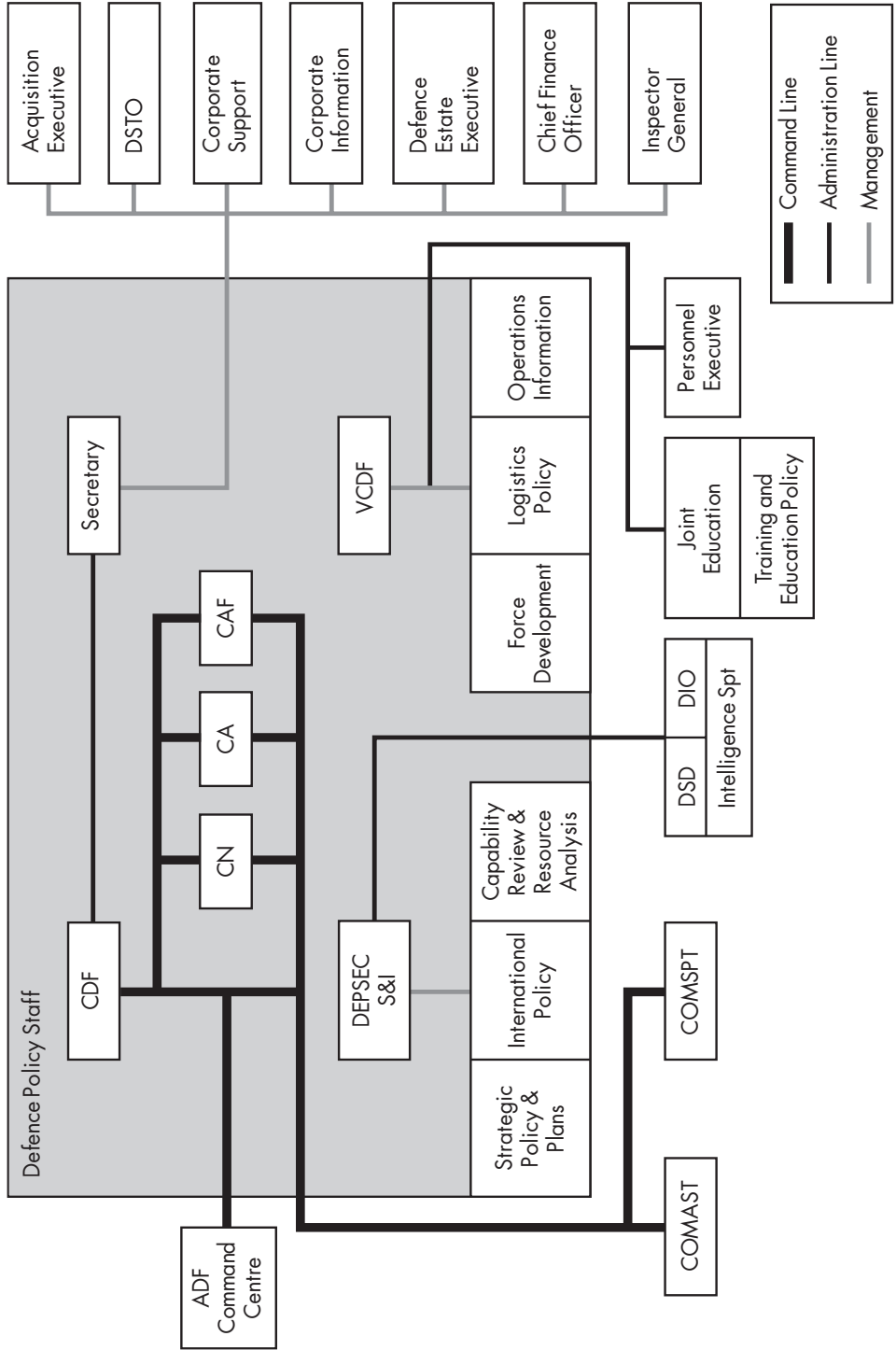
6. You are to:
 - a. ensure the economic use of available resources within endorsed policies and approved programs and the achievement of agreed objectives;
 - b. formulate estimates of resources required to meet objectives;
 - c. contribute to the corporate management of the Defence Portfolio;
 - d. provide access to data and information required to support Defence decisions;
and
 - e. ensure the visibility of performance measures used to assess effectiveness and efficiency.

Forecast Savings from the Defence Efficiency Review – FY 1996-97 \$ Million

Area of Review	Estimated Savings from Changes Recommended		Potential Further Savings		Estimated Savings from Changes Recommended		Potential Further Savings		Further Positions to be tested	
	One-off \$m	Recurrent \$m	One-off \$m	Recurrent \$m	Military	Civilian	Military	Civilian	Military	Civilian
Higher Defence Arrangements	-	22	-	-	175	130	-	-	-	-
Management and Finance	-	34	-	-	366	134	-	-	-	-
Strategy and Intelligence	16	1	-	0	33	-14	-	63	-	-
Capability Development	-	2	-	1	28	-6	-	-	-	-
Acquisition	-	37	-	-	707	-351	-	-	1	55
Defence Policy for Industry	-	20	-	0	2	97	-	-	-	-
Science and Technology	-6	24	-	4	89	92	2	26	135	-
Facilities and Long Term Force Disposition	368	97	193	0	487	559	-	15	-	-
Logistics	100	259	40	33	1,295	1,645	50	-	5,822	5,336
Personnel Planning and Management	4	169	-	29	1,167	574	-	-	320	-
Education and Training	-18	40	-	64	361	68	353	67	550	106
Administrative Support	-	59	-	3	34	23	7	4	218	406
Information Management	-23	10	-	12	-	125	-	150	-	-
Total Savings	442	773	233	146	4,743	3,075	412	325	7,046	5,903

* Note: Does not include transition costs.

Proposed Functional Structure



Defence Efficiency Review Key Findings and Recommendations.

Strategic Setting

- F1. The end of the Cold War has made Australia's Regional strategic circumstances more complex, uncertain and demanding. Australia's need for military capabilities remains at least as high today as it has been over the past twenty-five years.
- F2. If we are to remain confident that we could defeat any credible attack against Australia, our capabilities need to grow to keep abreast of the unprecedented growth and sophistication of military capabilities within the region.
- F3. Better planning and better management are essential components of our future defence capability.
- F4. To take advantage of our strategic geography and the existing strengths of our defence forces and our nation, we need to build an increasingly technology-intensive defence force, and most importantly, organise our forces so that they can operate as a single, joint force.
- F5. Finding and redistributing savings to warfighting capability will be a major step forward however it is likely that more overall resources (i.e. a higher proportion of Gross Domestic Product) will need to be allocated to Defence in the future.

Higher Defence Arrangements

- F6. A pervasive view exists that the Defence Organisation is not functioning at its optimum level.
- F7. The Chief of the Defence Force and the Secretary to the Department of Defence must be unambiguously in charge of the Defence Organisation.
- F8. The ways in which the Chiefs of the three Services exercise their responsibilities have changed considerably and the Review discerned substantial differences of view as to current arrangements, which must be resolved.

- F9. The three Service Chiefs are pre-eminently the best advisors on their single Service capabilities and possible contributions to contingencies. Accordingly, their role within the strategic structure needs to be enhanced.
- F10. A balanced approach to defence requires processes that encourage consultation and reconcile diverse views in a timely manner, and lead to clear decisions and accountability for action. Defence appears to have too many committees with too many members.
- R1. The Defence Organisation should be organised for war and adapted for peace.
- R2. The diarchic relationship between the Secretary and the CDF should be retained, with a clearer definition of those functions that are solely the responsibility of the Secretary, those that are solely the responsibility of the Chief of the Defence Force, and those which must be shared.
- R3. Directives to the Secretary to the Department of Defence, CDF and the Service Chiefs should be along the lines of the drafts at Annex B to this Report. Directives to the Service Chiefs should be issued by the CDF.
- R4. The separate identities of the three Services should be retained.
- R5. Collocation and integration of staffs should be progressed including the creation of a single authoritative joint policy staff at the strategic level within the Defence Organisation.
- R6. The function of longer-term resource analysis should return to the central policy and planning area.
- R7. The Chiefs of Staff Committee and a Defence Management Committee should be retained to provide high level policy and management guidance to the Defence Organisation.

Management and Finance

- R8. The authority for operational managers to move resources between inputs to achieve outputs should be further devolved.

- R9. The Forces Executive and Strategy and Intelligence Programs should be abolished and replaced by a Defence Headquarters Program, incorporating head office activity, comprising the CDF and the Secretary, VCDF and DEPSEC S&I and their staffs.
- R10. The number of headquarters and personnel employed at the operational level of command should be reduced.
- R11. The Inspector General Organisation should become an Executive and report directly to the Secretary and the CDF.
- R12. The long-term justification for retaining the Deputy Secretary Budget and Management position, in its present form, should be examined.
- R13. The top level Defence Program structure should be realigned along the following lines:

Program	Program Authority
Defence Headquarters	Deputy Secretary Strategy and Intelligence/ Vice Chief of the Defence Force
Navy	Chief of Navy
Army	Chief of Army
Air Force	Chief of Air Force
Intelligence	Deputy Secretary Strategy and Intelligence
Acquisition	Chief Defence Acquisition
Science and Technology	Chief Defence Scientist
Logistics	Commander Support
Defence Estate	Head, Defence Estate Executive
Personnel	Head, Personnel Executive
Education and Training	Commandant, Australian Defence Force Academy
Administration	Deputy Secretary Budget and Management

Strategy and Intelligence

- F11. A greater emphasis should be placed on the production of longer term strategic analyses.

Capability Development

- F12. Better coordination is required of all the different components which create a new capability or enhance an existing capability (e.g. personnel, tactics, doctrine, maintenance and repair systems).
- R14. There is a need for more advanced modelling and simulation to be applied to capability development in the ADF.
- R15. A Defence Capability Committee (DCC), comprising DEPSEC S&I (Chair), VCDF and the Chief Defence Acquisition (CDA) should approve major projects over \$100 million, the overall program of lesser projects, and such lesser projects as are deemed sufficiently sensitive or contentious. For projects with special difficulties, it may be appropriate to coopt CDS to assist in the analysis of trade-offs and the relevant Service Chief. The DCC should review the Unapproved Capital Equipment (Pink Book), Approved Capital Equipment (White Book), and Facilities (Green Book) together annually.
- R16. The Concepts and Capabilities Committee, the Force Structure Policy and Programming Committee and the Defence Source Definition Committee should be disbanded and replaced with competent staff work and ad hoc meetings if necessary.
- R17. The Defence Management Committee should ratify significant decisions made by the Defence Capability Committee.
- R18. The CDA should be responsible for developing the cash flows and project cost estimates and for approving these in the Organisation's not yet approved program of Major Capital Projects - the Pink Book.

Acquisition

- F13. While many specialist aspects can be out-sourced, the core procurement task must be internal.
- F14. New procurement approaches should be adopted in the acquisition of software intensive systems.
- R19. The Defence Acquisition Organisation should be retitled as the Defence Acquisition Executive and its head as the CDA.

- R20. Military staffing in the Acquisition Executive should be reduced from about 30 per cent to about 10 per cent. For Colonel (equivalent) and higher levels, a posting to the Acquisition Executive should be only considered if the individual has served in the organisation at least once before at a lower rank.
- R21. CDA should be the employing delegate for all staff employed in the Defence Acquisition Executive.
- R22. The Acquisition Executive should be reorganised into functional groups along the following lines:
- Surface ships
 - Submarines
 - Land vehicles, guns and engineering equipment
 - Aircraft and related systems
 - Communications, command and control and electronic warfare
 - Missiles and ammunition
- R23. The Acquisition Executive as a whole should be collocated, with consequent savings of 15 to 20 per cent.

Industry

- F15. A fundamental element of defence policy for industry should be to use the widest possible range of industrial support in peace because that will be necessary in war.
- F16. Defence should involve local industry, using competition and all other tools at its command (mainly the timing and structure of demand) to ensure its suppliers are seeking the maximum possible competitiveness through innovation and other efficiency measures.
- R24. The through life cost of ownership of equipment should be competed rather than only the cheapest initial acquisition cost.
- R25. Industry Involvement and Contracting Division should be disbanded and industry specialists closely integrated into acquisition functional groups.
- R26. Defence Industry Development funds should only be earmarked for requirements studies and development projects. These funds should be administered by the industrial cells in the functional groups of the Acquisition Executive and DSTO, with advice from the Capability Development staff.

- R27. A small, dedicated export unit, augmented as appropriate, and headed by a marketing expert from industry on a fixed term secondment, should be established.
- R28. The cost effectiveness of the overseas Defence Trade Commissioners and related staff overseas should be examined.
- R29. The process of privatisation needs completing with the sale of the Government's equity in Australian Defence Industries and the Australian Submarine Corporation.

Science and Technology

- F17. A technological edge remains fundamental to our defence aims and DSTO needs to retain its overall familiarity and greater depth in areas of particular concern.
- R30. DSTO should develop further its advanced modelling and simulation capability.
- R31. There should be a program of concept or technology demonstrators, especially in the fast-moving high-technology areas.
- R32. All test and evaluation functions in the Services should be placed in the Science and Technology Program as an integrated unit, where they should be rationalised and used with a greater degree of "user pays".

Facilities

- R33. A Defence Estate Executive should be responsible for all 'building owner' functions, which would be managed on a national basis.
- R34. A system of internal rents should be introduced to change the culture that facilities are a 'free good'. This will expose the full cost of ownership and encourage a more business-like approach to holding assets.

Logistics

- R35. A military Support Command arrangement should be established, analogous to Commander Australian Theatre, with the specific objective of reducing the size of organisations providing logistic and administrative support.

- R36. The value of the ADF inventory should be reviewed to ensure its accuracy.
- R37. Defence, with the assistance of industry, should develop a more efficient storage and distribution system which can accommodate its operational requirements.

Personnel

- R38. A single Personnel Executive should be formed with the specific intent of achieving greater commonality, integration and efficiency in personnel administration and management amongst the three Services and the Department.
- R39. The CDF should be the employing authority for all military personnel. The Secretary to the Department of Defence should be the employing authority for all civilians.
- R40. The principle of payment for job type, rather than qualifications held, should be applied more widely and used to determine salaries for individual jobs, rather than the use of variable allowances.

Training and Education

- R41. All basic non-military training, where appropriate, should be merged across the three Services, contracted out to recognised civil institutions, and then topped-up on-the-job in military facilities.
- R42. The availability of the Australian Defence Force Academy (ADFA) to all members of the ADF and to Defence and other civilians to undertake mature age, full-time and part-time studies should be more strongly encouraged.
- R43. A review should be conducted of the totality of initial officer entry and training.
- R44. Various high level courses should be merged for their common elements across the Services. Merging and collocating the three Service Staff Colleges, possibly in Canberra, could be undertaken quite quickly. The Joint Services Staff College and the Australian College of Defence and Strategic Studies should be merged and retained in Canberra.
- R45. The responsibility for development of ADF Training and Education Policy should be given to the Commandant, ADFA, in consultation with the Rector, University College, UNSW.

Administrative Support

- R46. A Defence Administrative Support Executive should be established which would be charged with taking in and rationalising the central and regional administrative structures of the three Services and the Public Service.
- R47. Legal services should be restructured to confine military officers to military and combat law, with commercial law work being outsourced.
- R48. Medical services need to be pulled together and rationalised, taking account of community expectations and civil arrangements.

Information Management

- R49. A single Defence Information organisation should be established in the medium term with initial division of operational and administrative systems to allow these functions to be quickly rationalised. Expenditure is to remain with the Program Managers.

Implementation

- F18. While there is great enthusiasm for and expectations of change in many areas of Defence, there is considerable resistance in others.
- R50. The Secretary and CDF should lead and manage the implementation.
- R51. Line managers, suitably assisted by a small Implementation Team comprising some members of the Review Teams, should be responsible for preparing, committing to and implementing detailed plans in their own areas.
- R52. A small, special group should be created within the Implementation Team to coordinate personnel adjustments and liaise with personnel authorities.