



**COMMONWEALTH OF AUSTRALIA**

# **JOINT STANDING COMMITTEE**

**ON**

**FOREIGN AFFAIRS, DEFENCE AND TRADE**

**(Defence Subcommittee)**

**Reference: Level of funding for Defence**

**CANBERRA**

**Friday, 31 October 1997**

**OFFICIAL HANSARD REPORT**

**CANBERRA**

# JOINT STANDING COMMITTEE ON FOREIGN AFFAIRS, DEFENCE AND TRADE

## (Defence Subcommittee)

### Members:

Senator MacGibbon (Chair)  
Mr Ted Grace (Deputy Chair)

Senator Ferguson	Mr Bob Baldwin
Senator Sandy Macdonald	Mr Bevis
Senator Margetts	Mr Bradford
	Mr Brough
	Mr Dondas
	Mr Georgiou
	Mr Hicks
	Mr Lieberman
	Mr McLeay
	Mr Price
	Mr Sinclair (ex officio)
	Dr Southcott
	Mr Taylor

### Matters referred:

#### To inquire into and report on:

The level of funding required to ensure that the Australian Defence Force is equipped, trained and maintained to a level necessary to provide for the defence of Australia as principally defined by a strategic guidance, with particular reference to:

- . equipment and facilities on order; equipment and facilities to implement essential new capabilities; equipment and facilities required to replace obsolete material and for which no alternative technology is appropriate;
- . training to achieve appropriate and sustainable levels of preparedness of personnel;
- . operational activities and capabilities necessary to support Australia's foreign policy, regional engagement, regional stability and UN support;
- . stockholding requirements for weapons, consumables and maintenance spares;
- . research and development to ensure continued development of Defence capabilities, to adapt foreign technologies to Australian conditions, and to provide the

knowledge essential for Defence to remain an informed intelligent customer;

- . essential management and administrative overheads required for the efficient management of the Defence organisation.

**WITNESSES**

**BARRIE, Vice Admiral Christopher Alexander, Vice Chief of the Defence Force, Department of Defence, Russell Offices, Canberra, Australian Capital Territory 2601 . . . . . 215**

**TONKIN, Mr Robert Henry, Deputy Secretary, Corporate, Department of Defence, Russell Offices, Canberra, Australian Capital Territory 2601 . . . 215**

**WHITE, Mr Hugh John, Deputy Secretary, Strategy and Intelligence, Department of Defence, Russell Offices, Canberra, Australian Capital Territory 2601 . . . . . 215**

JOINT STANDING COMMITTEE ON FOREIGN AFFAIRS, DEFENCE AND TRADE  
(Defence Subcommittee)

*Level of funding for Defence*

CANBERRA

Friday, 31 October 1997

Present

Senator MacGibbon (Chairman)

Senator Margetts

Mr Bevis

Mr Georgiou

Mr Hicks

Mr Sinclair

Dr Southcott

The subcommittee met at 9.06 a.m.

Senator MacGibbon took the chair.



**CHAIRMAN**—I declare open this public hearing of the Defence Subcommittee of the Joint Standing Committee of Foreign Affairs, Defence and Trade. This hearing is the fourth in an inquiry presently being conducted by the Defence Subcommittee into the level of funding required to ensure that the Australian Defence Force is equipped, trained and maintained to a level necessary to provide for the defence of Australia. This is an important issue, given current financial constraints and recent public debate over the government's decision to quarantine the defence budget for the life of this parliament.

I draw the attention of the witnesses to the terms of reference for the inquiry, which restricts consideration to the level of defence as principally defined in current strategic guidelines. The intention of this restriction is to prevent expansion of the debate into the wider implications of Australian security within the region. The inquiry will be constrained to consider purely Defence requirements which will allow the subcommittee to remain within its portfolio in making recommendations.

In the course of the inquiry, the subcommittee has conducted a number of public hearings and has spoken with government, business and various representative groups associated with Defence, Finance, Foreign Affairs, peace research and defence-related industry. We expect this will be the final public hearing of the inquiry, but optimism always reigns supreme. The committee will commence drafting its report of this inquiry within the next few weeks and expects to report to the parliament in the first months of next year.

[9.08 a.m.]

**BARRIE, Vice Admiral Christopher Alexander, Vice Chief of the Defence Force, Department of Defence, Russell Offices, Canberra, Australian Capital Territory 2601**

**TONKIN, Mr Robert Henry, Deputy Secretary, Corporate, Department of Defence, Russell Offices, Canberra, Australian Capital Territory 2601**

**WHITE, Mr Hugh John, Deputy Secretary, Strategy and Intelligence, Department of Defence, Russell Offices, Canberra, Australian Capital Territory 2601**

**CHAIRMAN**—On behalf of the subcommittee, I welcome Vice Admiral Chris Barrie, the Vice Chief of the Defence Force; Mr Hugh White, the Deputy Secretary of Strategy and Intelligence; and Mr Robert Tonkin, Deputy Secretary of Corporate Affairs of the Department of Defence. I must advise you that the proceedings here today are legal proceedings of the parliament and warrant the same respect which proceedings in the respective houses of parliament demand. Although the subcommittee does not require you to give evidence under oath, you should be aware that this does not alter the importance of the occasion. The deliberate misleading of the subcommittee may be regarded as a contempt of parliament. The subcommittee prefers that all evidence is given in public but should you at any stage wish to give any evidence in private, you may ask to do so and the subcommittee will give consideration to your request.

We have received the department's submission and it has been authorised for publication. The transcript of your previous evidence has also been authorised for publication. Are there any corrections or amendments you would like to make to evidence that you have previously given to the inquiry?

**Vice Adm. Barrie**—Not at this stage.

**CHAIRMAN**—I invite you now to make an opening statement before we proceed with questioning.

**Vice Adm. Barrie**—Thank you Mr Chairman. When I was reviewing the submissions for this inquiry, I was well aware that there were quite a number of submissions which took the counter view to the idea that there was some concern about the increased level of funding to defence in positive terms and really approached it from a negative sense, that there is too much spending on defence. I would like to use this opportunity to make a couple of points. Firstly, this is a very important inquiry and comes at a very important time as we go about the business of assessing Australia's requirements into the next century.

The second issue I would like to underscore is the extent of the commitment inside the Australian Defence Force itself, and the departmental officers which support it, for



getting from this inquiry a very robust set of recommendations and findings to help us analyse our requirements into the next century. This is a very difficult issue and it involves a great range of complexity. We will expand on that in a minute. Nonetheless, from the entire defence organisation, it is worth saying how committed we are to getting a very positive finding from this inquiry. Mr White has a few remarks to make about the processes involved and the complexities.

**Mr White**—We thought it might be useful if I took a couple of minutes, in the light of previous submissions and our previous appearance, to set out a few of what seems to us to be the key issues at stake in this inquiry and the issues involved in its terms of reference. As a number of people have probably said to the subcommittee, defence needs are very hard to define precisely because, although there are a lot of constants in our strategic circumstances, the situations under which the government would actually need to use armed force are, in a significant sense, inherently unpredictable. You cannot say at any particular time that this quantity of money will deliver precisely what the government requires or the country requires or will not. The task in front of the subcommittee, if I can put it that way, is not as easy as that.

The second point that is worth making is that, at any level of defence spending, it is imperative both from a strategic and from a fiscal point of view to ensure that those dollars are spent as efficiently as possible, and by that I mean two things: firstly, efficiently in a sense that we are buying or developing those capabilities which most cost-effectively meet our strategic requirements; and, secondly, at the more detailed level, that we are maintaining those capabilities as cost effectively and as efficiently as possible.

Getting the best value out of the defence dollar is a continual process. It is not just a matter of doing one review then doing one group of efficiency measures and then going back to sleep so to speak. It is a continuous process and it is a very important part of where the defence organisation has been in the last decade and more, that we have been doing that. There has been a lot of reform, a lot of efficiency undertaken in the defence organisation. The point I would like to make about that is that, whilst we are very far from being complacent about the capacity to be more efficient and we take very seriously the need to continue to drive that down, we have done a lot in the last 10 years or more to ensure that we are getting the best value for the dollar that we can.

In the end, no matter how efficient you are, you do get what you pay for in the defence business, like any other. The less the government spends on defence, the greater the risks it takes. This is essentially a risk management business. What are those risks? The risk is quite specific. It is the risk that, in the unforeseen and perhaps unforeseeable circumstances under which Australian governments and Australia as a country would need to rely on our armed forces, those forces would not be adequate to its needs.

The question for us, for the government and for the subcommittee is: how big are those risks and how adequately are we making those risk management judgments? The

point from where we sit is that the scale of risks depends on a set of broad judgments about our strategic circumstances and those judgments, it is worth saying, have to encompass some fairly long-term considerations. It is not just judgments about strategic circumstances in the next year or two because, as you know, the demands of developing defence capabilities require investment over a very long time frame.

Over 10 or even 20 years, successive Australian governments have made a fairly consistent set of what you might call broad risk management judgments about their overall approach to defence. The first has been that Australia does not need to spend enough to maintain the forces to defend Australia against a major attack at short notice. This distinguishes us, for example, from the defence postures of a lot of NATO allies during the Cold War.

The second element that has been constant amongst governments' risk management judgments has been that we do need to maintain forces sufficient to meet a range of lesser contingencies, lesser possibilities, which are more likely than the very major attack, which we consider pretty unlikely. In thinking about how substantial forces need to be to meet those lesser more credible contingencies, we do have to provide a fairly substantial allowance for the unexpected.

Successive governments have not been prepared to say, 'We think this is what is likely to happen, and we'll therefore assume that whatever can handle that will be good enough.' They have recognised that you need to factor into your calculations a substantial allowance for the unexpected. They have also recognised that our approach to defence spending needs to provide us with the capability to build up our defence forces over the longer term should strategic circumstances require that.

In broad terms, one of the questions the committee needs to look at is whether that set of risk management judgments remains valid and, if so, in more detail, whether what we are doing today actually meets those risk management judgments. I guess the question is: are we doing enough today? Let me make two comparative points. It has been agreed on both sides of politics in Australia that for a range of reasons since the end of the Cold War our strategic circumstances have become more demanding and require more of our strategic capability.

An important element of that in particular that I would like to draw your attention to, as we did in our earlier submission, is that defence spending throughout our region is growing, and growing quite quickly and steadily. I make the point that my own judgment is that the events of the last few weeks and months in our region, whilst it may—I am no economist—have some short- or medium-term consequences for the rate of economic growth in countries in our region, I do not believe that it would be wise for Australia to base its strategic planning on any expectation that what has happened in the last few weeks will change significantly the long-term strategic trend of sustained economic growth and expansion in defence funding and expansion of defence capabilities throughout our region.

In thinking about those risk management judgments, we ought to be recognising that our circumstances are becoming more demanding, defence spending is increasing, and capabilities are increasing throughout the region. By contrast, our defence spending has stood still now for 10 years. As a share of GDP, it has gone down significantly. As we have pointed out, GDP share does not provide a magic index of adequacy of defence spending, but it does provide an interesting indication of the amount of effort that a government or a country believes is worth putting into that risk management process.

From where I sit, the question that I would ask is: are our strategic circumstances ones in which it makes sense for Australia to decide that we need to spend less on defence in the mid-1990s as a share of our overall national wealth—put less effort overall nationally into defence—than we did in the mid-1980s? That is at the broad level. To finish, let me make a few comments about what it seems to us to mean specifically in terms of capabilities.

Roughly speaking, at our current level of defence spending, taking account of the very significant savings that the government has achieved through the defence reform program and the contribution that will make to our capacity to invest in capability over the next 10 years, focusing on—if I can put it this way—where it really counts, at the combat front edge of the ADF, we will be able to invest heavily in command, control and communication systems and intelligence systems, which we believe is a very high priority.

We will be able to upgrade all of our major combat ships, our major combatants, and our front-line combat aircraft. We will be able to restructure and re-equip the army, restructure the whole of the army and re-equip significant proportions of it with increased firepower and mobility. We will be able to acquire a substantial AEW&C capability and other surveillance assets like the OTHR, and we will perhaps be able to expand somewhat our submarine capability.

That sounds pretty good. It is. We have got the capacity within present defence spending, to a significant degree because of the efficiencies that have been achieved, to significantly augment our capabilities over the next 10 years. But it is worth bearing in mind what we will not be able to do. We will not buy a single new major surface combatant. We will not buy a single new front-line combat aircraft. We will not be able to expand our land forces. We will continue to have what is very nearly the smallest army in the region and our capacity to increase our readiness, our preparedness, will be very constrained.

From where I sit, the point where those pressures start to come home to roost very sharply is not in the next one year, two years or three years. I do not think we face a train smash in the next little while. But when we look out to the first decade of the next century, the next decade, and we think, for example, of the requirement eventually to start investing large sums of money in a successor to the F18, successors to the FFGs—and this is not just a replacement syndrome; I do believe those are the sorts of capabilities which

we will need to address in some way or other—I would have to say that, if the present level of defence spending is maintained, we will have some very significant problems.

It is, if you like, that long term that matters. I think when we think about the future of Australian defence spending, it is not that we need to worry if we will have enough this year or next year or the year after. It is whether we are building in a sustained level of spending which will provide us with the sorts of capabilities we need into the next century.

It is a very difficult question, of course, then to ask: how much is enough? But, in broad terms, my judgment is that, at two per cent of GDP sustained—and that is allowing modest continued real growth—we will be much better off than we are today to be able to go beyond those things that I mentioned and invest in some of the newer capabilities in the next decade which will be the basis of our security into the next century.

If we do not, I do think we need to bear in mind that an Australia that does not maintain a substantial investment in new capabilities into the next century could end up looking a little bit the way New Zealand is starting to look today.

**CHAIRMAN**—Thank you. Mr Tonkin, do you wish to say anything?

**Mr Tonkin**—No.

**CHAIRMAN**—Admiral Barrie and Mr White, thank you for that introductory statement. The reason the committee has brought you back is because of the complexity of the inquiry and the absence of really hard factual information on which to come to firm answers. How we handle this hearing today is very much a manifestation of those difficulties we face.

The committee accepts that we want a balanced, modern, flexible Defence Force for Australia. We accept that risk management is an inevitable part of that. We cannot have all capabilities for all circumstances, foreseen and unforeseen. We do not cavil with that qualification on the capabilities of the Defence Force. At the end of the day we are preparing for the unforeseen and the unforeseeable in many ways, and that involves the intangibles that are so perplexing for us.

What we decide as the level of funding for the ADF in the next five or 10 years will largely determine the capabilities probably out to 30 years from this point. If you look at the DDGs and F111s that we are still using, the decision to acquire those was made more than 20 years ago—30 years ago in some cases—and they dictate today very much the response Australia can make to a military emergency because we have invested inflexibly to some degree in that technology. That is inevitable. We accept that.

Somehow or another this morning we have to look at the capabilities that we have

at the moment, what we need to augment them to provide a reasonable assurance of that flexibility against the unforeseen and what capabilities that can reasonably be expected to appear within our region, although that is a rather weak qualification given the transferability of technology so rapidly around the world. But we do have to make an estimate of what might appear in the region and what sorts of counters the ADF could reasonably be expected to provide for our national security in relation to that. With that in mind, could we start on what changes you anticipate will occur within our own strategic environment within the next 10 or 15 years? What capabilities do you see emerging in the region that we do not have counters for at the present time?

I am not asking you to be specific. I said in my introduction that while you were not under oath you must behave as if you were under oath. We obviously put a qualification or a waiver on this here because we are asking you to make a reasonable assumption as to what might happen.

**Mr White**—Obviously, these are very broad questions, but let me make one point about what you might call a broader strategic environment and then say a few more things about the way in which we see capabilities in the region evolving. The first is that the government does not plan the ADF against any particular conception of any particular war we might expect to fight, and we do not plan against any specific threat.

We do look at the distribution, the disposition, of armed force throughout our region, and we conceive our region very broadly—the whole of the Asia-Pacific region. We look at the circumstances in which that force could be used in ways which would be or might be contrary to our interests, including from the defence of direct attack on Australia, in as broad a way as we can. That is the best way to handle all those uncertainties that you have mentioned and that I mentioned in my introductory remarks.

We do see, and successive governments have seen, that with the end of the Cold War the distribution of armed force military capability and the power structures in the region, which will in a large measure determine if and, if so, how, where and when that force might be used, have become more complex. That does not necessarily mean more threatening, but it does mean that the range of uncertainties, the range of types of conflicts that could occur, the ways in which those conflicts could affect Australia's strategic interests, the circumstances under which they could involve Australia directly, are broader and more complex than they were, for example, in that period between the mid 1970s and the mid 1980s.

Our job and your job would be easier if I were able to say that the following specific circumstances under which Australia would use armed force have become more likely by the following percentage. I cannot do that. But what I can say is that when we look at the way in which Australia could be drawn into a conflict we see more circumstances under which it would occur and that broader range of circumstances is more demanding on the sort of capability we would need to have if we were to meet that need

that I mentioned before—that is, to ensure that when the country needs the ADF it has the capabilities required.

To look more specifically at the point of capabilities, this is a very dynamic and very significant part of our strategic environment. We do see a very significant, sustained increase in military capabilities throughout the region and that increase has some very clear focuses and very clear directions, which I will describe in a minute. We do not see that as in itself inherently destabilising. We do not see that as an arms race, in other words. By ‘an arms race’ I mean a situation in which the very fact that countries throughout the region are requiring new capabilities is itself a stimulus for others to acquire capabilities because they fear they will be used against them. I do not feel that this is, if you like, inherently destabilising. But it is, nonetheless, a significant change in strategic circumstances, and from our point of view as defence planners it means that the sorts of capabilities that we believe the ADF need to be prepared to meet are expanding.

What are the key areas? The first point to make is that the most significant increases in capabilities throughout the region are in the air and maritime area. Defence forces in our region have traditionally been primarily focused on land, and there remains a lot of big armies in our part of the world. But the trend which is most striking is the way in which in the last 10 years and even five years new qualities of aircraft, including front-line combat aircraft, and equally important sensor systems, weapon systems and the equivalent new capabilities in ships and in submarines, are starting to appear in the region. For example, when we ordered the F18 it was quite decisively the most sophisticated aircraft in the region.

**CHAIRMAN**—If I could intrude there, both the air and the naval advancements are also the most expensive.

**Mr White**—Yes.

**CHAIRMAN**—There is a technology counter. You have mentioned the introduction of the F18. Could I ask you why the Australian Department of Defence failed to foresee the introduction of the new generation air to air missiles, the short range and beyond visual range missiles that have emerged in the region and have been introduced into service without the corresponding Australian counter?

**Mr White**—I am not sure that we failed to foresee in the broad. We were surprised by how quickly it happened. This is a little hypothetical, but I think if you had asked me in the mid 1980s whether I thought that the region would acquire aircraft of quality equivalent to ours and high quality with individual range and beyond visual range missiles, I would have said, ‘Yes but later.’ The fact that it has happened relatively quickly has been a surprise to us.

I think there is a number of reasons for that. But I think an important one was that

quintessentially unpredictable event, the end of the Cold War, which in complex ways changed strategic perceptions in the region and therefore encouraged the acquisition of some new types of capability, but it also made the supply of these capabilities easier. It also drove the price down a bit in some cases.

An obvious example of that is the fact that the availability of former soviet bloc aircraft to our part of the world at pretty low prices is obviously a consequence of the end of the Cold War. The releasability of some of the more sophisticated weapons capabilities from both east and west is a product of the end of the Cold War. Countries have been prepared to sell more than they would have during the Cold War.

**CHAIRMAN**—Nevertheless, we have had a rapid and unforeseen reversal of Australian air superiority. We cannot compete in that one crucial dimension.

**Mr White**—I would not say that we cannot today compete but I would make this point. The judgment of history will be—and perhaps it is your judgment today—that the position we took in the mid-1980s that Australia could indefinitely maintain a decisive technological edge will prove to have been a mistake, and we paid too little attention in the mid-1980s to the significance for our strategic posture of what should already have been the very evident strategic significance of the massive economic growth in Asia.

It is quite useful actually to go back to the 1987 white paper where that issue is addressed and its significance is noted, but it does not have the central position that we now see it as having. As I say, I think the judgment of history will be that we did not pay enough attention to that and that we were perhaps a bit complacent. The challenge for us is not to make the same mistake today.

**Mr GEORGIU**—I get a bit confused when you talk about the percentage of GDP and then what you end up saying is that we want two per cent ideally; otherwise, with no change in the security environment, we will be reducing the current quality and scale of ADF capabilities and increasing the level of risk. My problem with that is that you have not really made an argument. Your first step is to say, ‘The GDP is not really important but it’s a symbol of the society’s concern. It’s an earnest.’

The other thing is that a lot of the actual effectiveness measures have meant that the quantum of GDP is not really significant. You are going to make major savings out of the defence efficiency review. You have got manifestly a number of areas within your organisation where a detached look indicates that there are further major savings that could be made, so I am just really puzzled about why you can specify a proportion of GDP as being adequate without looking at your own internalities and without indeed looking at your internal environment as critical a determinant of security output as anything else.

**Mr White**—Mr Tonkin will have a bit to say about that, but let me just make this

point as a preliminary. Of course you are right; as I said at the beginning of my comments, GDP share is an extremely imprecise measure of strategic effort. That is for two reasons. Firstly, it does not pay attention to how big the GDP is and, therefore, how many dollars there are. In the end, it is the dollars that count. Secondly, it does not pay attention to how much capability you are getting for each dollar. You are absolutely right to say that the starting point of any consideration of adequacy of defence spending is how much capability you are getting for every dollar that is going into the system. We put a very big priority on that but, as I guess Rob will explain, we are not beginners in the rationalisation and efficiency business. We have done a hell of a lot. We do think there is more to be done but we do not believe that realistically expectable efficiencies will address the sorts of issues that I mentioned before.

The other point about GDP is that I think the reason why people keep on using it and why it continues to be a very common part of the public debate both here and around the world about defence spending is that it is an indication of how much of a national effort we are putting into this tangible issue. The point I was trying to make about GDP share is the useful way to pose the question and the useful way to ask the measure is this: are our strategic circumstances today ones which make it appropriate for the country as a whole to be putting less of its national effort and less of its national wealth into managing the risk of armed threat than it did in the mid-1980s? I agree that is not an accountancy or a programming proposition, that is a very broad, if you like, national proposition.

**Mr GEORGIU**—But that is a purely symbolic issue depending on how defence itself expends its money and what capabilities it requires. It seems to me that we are faced with two proposals: firstly, intellectually you really cannot support it as a proportion of GDP; and, secondly, you bounce it on the second take that this is very important when your first assertion undermines your symbolic point.

**Mr White**—I would like to make a point about that. You are right. I would not say that Australia needs to spend two per cent, 2.1 per cent or any particular percentage of GDP on defence. I would not say that you can define a level like that—I think that would be artificial. It goes back to the point I made earlier, that is, you just cannot define defence needs precisely and you certainly cannot define them in terms of GDP share. But, when the country is thinking about what sorts of risks it is prepared to bear and what sort of price it is prepared to pay to manage them, particularly in an area where the nature and scale of the risks are intangible and inherently unpredictable, it is quite useful as an aid to reflection to think, ‘What proportion of our national effort are we putting into this?’ as opposed to, ‘What proportion of our national effort we are putting into something else?’

You could say the same about any other area of public policy. You could say, ‘As a country, are we spending enough of our GDP on education?’ It is not that educational outputs can be precisely measured in GDP terms any more than defence outputs can be, but it does give you a measure of how seriously you are taking this element of your national life.



**Mr GEORGIU**—Yes, but to take that up, equally the defence organisation, in terms of its own expenditures, has to examine things like their health expenditure; expenditure by the Defence Force on health. It strikes me as being at least as important, probably more important, that we are not faced with a situation where Defence does not know how much it is spending on health. That is a big number. I am trying to juxtapose, on the one hand, the proportion of GDP and, on the other hand, the question of how much you are actually spending on health. The response is, ‘We don’t know.’

**Mr White**—Yes.

**Mr Tonkin**—Perhaps I can make a few points on what Mr Georgiou raises. I take his point that trying to base the defence budget as a percentage of GDP is virtually impossible and probably unsound, but as Hugh has said it is a demonstration of national effort and interest and it is an accepted international national comparative. If we allow it to fall too far, questions are raised. But when we seek to determine the level of defence funding we have to look at our internal capacity to generate efficiencies to meet cost pressures. We can demonstrate that we have very substantial rising cost pressures across a range of areas.

Hugh has outlined the scale of the major equipment capital investment which we believe we require to provide the appropriate form of defence. They are almost inescapably more expensive than the things that they replace. When you move to new capabilities such as early warning aircraft it is not an inventory so there is not an offset. If we replace one set of submarines with another at least some part of the cost of the new submarines can be borne by drawing out of service the equipment that is replaced. If it is a new capability that represents a delta of additional costs which, again, must be found.

As we retain equipment in service longer and as we modify it by refits and by giving them new equipment to attach to them—such as augmentations of F18s and F111s et cetera—so you face the problem that the platforms themselves become older and that raises the cost of maintenance. We are facing rising demands in that area. The unit cost of labour rises. As technology increases so the skill levels of the people we must employ—service and civilian—rise. Their cost rises on that basis. Wage rises also occur. We have to fund those internally, substantially, so we end up with a series of cost drivers inside our budget. Our first response to that is, ‘How can we review what we do and how we do it to generate offsets for that?’

We have been in that business for a very long time. From 1990 to 1996 we saved, in total, \$510 million a year on a continuing basis from a series of efficiency measures—a force structure review, initial contracting out and a range of other initiatives. We reinvested that money against those cost pressures. As well as changing the way we do business, the defence efficiency review is directed towards the same thing. All that is to say that we can essentially buy time through efficiency measures.

You can significantly draw down the cost of what you do but there is a balance to that. Eventually the organisation gets to the point that it has no further flex in it. I would argue that you do not want to have, particularly, a defence organisation so tautly constructed in terms of its cost and robustness that any increased demand for effort causes some sort of fundamental breakdown in what it can do.

**Mr GEORGIU**—How far are you away from being there? Because if you think you are there, I would differ.

**Mr Tonkin**—If you are taking \$1.5 billion out of the base of our organisation at a time when the demands on our activity rates in fact rose, compared with what they used to be, I would suggest that by the time we reach the notional steady state—I will not say end state, but steady state—of the defence reform program in three years from now, we will have driven the organisation pretty close to that sort of a point.

You can always flex it at the margin. You can always say that there is a little bit here and little bit there but, when you are talking about the big numbers involved in one equipment decision, a new piece of capability can easily eat any of those efficiency measures you would like to name—be it health care or anything else. One pay rise is the same thing, both occur. What gives? Less capability? Less preparedness? Less activity rates? Less people? What? In essence, our argument is that we believe that—if you look at our history and our effort, you come to the conclusion—at some point in the near-to-medium-term, the mining of those internal resources is substantially exhausted. You cannot maintain an increasing level of capability against a changing environment with a zero budget.

**Mr GEORGIU**—What does it mean on page 6 where you say:

. . . there are significant pressures to be dealt with, including the implementation costs of the Defence Reform Program.

**Mr Tonkin**—If we are going to reduce our work force—service and civilian—as we are, and our rough estimate is that in the order of 8,000 positions will come out, that inescapably involves redundancy costs. It is about a year's worth of salary per person who goes. That is a transition cost. You have to pay redundancy payments.

**Mr GEORGIU**—Do you take savings into account?

**Mr Tonkin**—The savings lag. When we talk about \$900 million of continuing savings in the defence efficiency review, that is the mature state. They lag because, in the first year or so, the transition costs eat them. The other factor is that, in order to achieve some of those efficiency costs in areas such as education and facilities, you have to rationalise training schools and bases. There is a capital cost. We have got to spend that.

**Mr GEORGIU**—I understand. But how much are you talking about?

**Mr Tonkin**—I would have thought that the transition costs would be at least in the order of \$100 million. In relation to capital costs, I am not quite sure. I could give you the answer, but it would be in the hundreds of millions of dollars by the time you close small bases. You have got to clean them up. So there are clean up costs. Every time we turn around we find we have been there for 50 or 100 years, and practices have changed. You have got to clean up the oil seepage, or whatever it is. If you break even in some places, you are really happy. There are significant costs there.

**CHAIRMAN**—That was a point we had to deal with. But I would suggest to the committee that we work through the questions that are in the briefing paper, because we have a very large topic to cover. We will tie up this question of the dollar figure then let us get back to page 10 and work through seriatim.

**Senator MARGETTS**—I would like to comment on some of the issues you have brought up. Vice Admiral Barrie mentioned that there were a substantial number of submissions to this inquiry which indicated concerns about the current level of defence spending. My understanding is that a number of these submissions concentrated on the issue of what is security as opposed to what we need for defence spending in the absence of some idea of what Australia's security needs are. Would that be your assessment of that, as well?

**Vice Adm. Barrie**—My perception, having read through those submissions, is that they probably fall into two categories. There were some submissions which attacked that question of the fundamental security needs and of course that is of concern to us all. There were a number of the other submissions which appeared to me to be what I would call cause related—that is, simply get out of the defence spending and do something else with it. Yes, I know some of them do address that fundamental question.

**Senator MARGETTS**—Back in the 1980s there was some expectation that at the end of the Cold War there would be a peace dividend. The rationale for much of the Australia's position and Australia's defence policy on spending in the 1970s and 1980s was related to the Cold War. There was an expectation in the community at the end of the Cold War that there would be a significant peace dividend.

**Vice Adm. Barrie**—There was quite a lot of discussion in a lot of eminent areas about those sorts of concerns. If I could just share something I did in the mid-1980s. I conducted a period of study in the United States under a professor from Maryland University and he suggested that the Cold War and the idea of the nuclear problem actually created a manageable security environment because the costs of a breakdown and miscalculation were just so high that no-one would ever start down that path. It was a small voice in those days. But my assessment of today's world is there is a much greater level of strategic uncertainty than what we had to try to manage in the Cold War years.

**Mr White**—It is obviously a very interesting point and there are a couple of elements to it. Going back to something you mentioned earlier, there is a lot more to security than security from armed attack. The government in the DFAT white paper, for example, has got a very explicit approach to that broader conception of security. The challenge from where we sit and I guess where the subcommittee sits is to work out within that broad concept of security what sort of attention and resources we should devote to the specific problem of the threat of armed attack—that particular kind of threat to a country's security.

I certainly recall that some people thought that, with the end of the Cold War, the role of armed force in international affairs would dwindle or maybe even disappear. I think the events of early August 1990 and the months following—that is, the Gulf War—somewhat dented that view. But more broadly, if you look not just in our own region but around the world, it is pretty clear that the end of the Cold War was not the end of history and, although it was the end of a very distinctive phase in international strategic affairs, it was not the end of the role of armed force in international affairs.

Governments throughout our region in the light of that have still considered that that part of their broader conception of security needs to take account of this more narrow conception to do with armed force. We do not deny by any means that the government needs to keep a close eye on the broader conception of security, though our job is to focus on that specific area and rather special area of security which does relate to armed force. That is the focus we are trying to maintain.

**Senator MARGETTS**—Some would argue—and I believe they have—that by Australia and other countries concentrating so very much on free trade a lot of those divisions within countries and divisions between countries have been exacerbated in recent years. If we do not look at what might be happening in terms of those internal conflicts which may become civil wars or regional wars, then all that we do in trying to arm against potential security threats may be almost irrelevant.

**Mr White**—Sorry, did you say 'free trade' before?

**Senator MARGETTS**—Yes, I did. I know that might be a radical concept for defence. There are a number of people doing analyses at the moment about Bosnia-Herzegovina, parts of Africa and even parts of our region, and how the implication of growing gaps between the haves and the have-nots within countries is exacerbating civil war, scapegoat politics and so on. That implication spilling over into other regional countries may mean that the economic situations of countries may well be their main security threat, which then leads to potential warfare.

**Mr White**—There is no question that economic affairs and economic relativities between countries is a very important element of both the broadest security environments and more narrowly—

**Senator MARGETTS**—If I could add that that may well have been a big element that was left out of the analysis of even the Gulf War.

**Mr White**—I am not sure about that. My own view would be that the Gulf War was a very simple situation of interstate aggression of one state against another and that the experience of the 20th century, perhaps more than any other century, shows that that is a particular form of international behaviour which the global community is very unwise to tolerate, but I am not quite sure I have got your point about free trade. Do you think free trade eases those economic disparities or exacerbates them?

**Senator MARGETTS**—My belief, and I believe there is a growing level of information to back that up, is that currently that is exacerbating those gaps.

**Mr White**—Okay. In my line of work I would not have a view on whether free trade exacerbates them. I guess my instinct has been that free trade, on balance, reduces them. Certainly, there has been a very strong line of thinking in international affairs, stretching right back into the 19th century, that free trade actually reduces the likelihood of armed conflict. I often find myself in the position of trying to persuade people that whilst free trade does reduce the risk of armed conflict, it does not make it disappear. I am not sure that I am in a position to argue the case from the other side.

**Senator MARGETTS**—I would probably agree with you in relation to what are seen to be traditional, so-called enemies—Australia and the United States and the former Soviet Union and so on. They suddenly realise that they are dependent and there are huge debt dependencies and an environmental debt that they need other people for. I agree there, but I think there is equally a large need for research into those other aspects of security from scapegoat politics, which are forming the basis of the internal and then international conflicts.

One could say at the moment—and there has been some talk about it—that in the Middle East the new tensions are based on the fact that people assume that just removing economic assistance from places like Iraq for long enough will force them to change their mind on their military strategy when in fact the internal tension caused by grinding poverty and destitution may well be the force that explodes.

**Mr SINCLAIR**—As it did in South Africa.

**Senator MARGETTS**—It would take a couple of hours to talk about that.

**CHAIRMAN**—This is straying a little bit from the purpose of the inquiry.

**Senator MARGETTS**—I actually have not been able to attend too many of the briefings, partly because at the time when I was not available some of these briefings took place, but I do think it is reasonable that I get to ask some of these questions because I

think they are salient. It was admitted that quite a large percentage of the people from the community giving evidence put forward some of the kinds of views that I am putting. I think it is reasonable that there is some reasonable coverage of those when we ask questions of defence, but I do have a few more questions I would like to ask.

**CHAIRMAN**—The terms of reference for the inquiry are rather explicit that we do not go into the wider debate about alternative matters other than the security of Australia as defined principally under current strategic guidance. So I would ask you to confine your remarks to that requirement.

**Senator MARGETTS**—I would like to pick up on a point that was made by Mr White in relation to whether or not we actually have a potential arms race within the region. I have found some of your comments contradictory. Also, if I am not mistaken, there were some comments from Vice-Admiral Barrie, but I think it was mostly from your presentation. Whenever you talked about what we needed to buy or have funded, you related it to what other people in the region had.

I find it very difficult that you are expecting to justify that there is not or could not be a regional arms race when the very decisions that you are asking this committee to make are based on what other people have or what you are expecting other people in the region to attain. Surely other people in the region are doing precisely the same thing. Is that not an arms race?

**Mr White**—It is a very important point, and it is something that is very central to the way we make recommendations to government on the way we develop our forces. There is a classic concept in strategic policy and a security dilemma that the more I try and build my security with armed force, the more other people feel threatened by the armed force I have developed. So you end up in a vicious circle. It is extremely important that Australia and other countries in the region not start developing their forces in a way that is seen to be mutually threatening and therefore making one's security less rather than more. It is something that is a very key focus of our thinking.

The classic example of an arms race—and when people talk about arms races the thing they normally have in mind—is something like what happened between the US and the Soviet Union in developing their nuclear capabilities in the 1950s and 1960s particularly, or what happened between Britain and Germany in the first decade of this century in developing their naval capabilities. Those are quite specific circumstances, not just the broader point that all parts of a strategic system have to be careful to develop their forces in ways that are not seen to be threatening.

It is the much more acute situation in which the people read another country's capability developments as specifically directed at them and are deeply concerned to make sure that they are not overtaken and then their response is specifically read by the other side as directed at them and then you get a quite unstable amplification of acquisitions.

The way in which countries or groups of countries try and prevent the development of their forces deteriorating into that kind of arms race in a narrow sense is from a whole range of activities which we abbreviate under the broad heading of transparency; that is, you need to make very sure that other countries in the region understand precisely what it is you are acquiring and why you are doing it.

The reason why successive Australian governments have put such a strong emphasis on explaining to other countries in the region what our force structure is, why it is shaped the way it is, what our strategic priorities are, is to make it absolutely clear to people that the way in which our forces are developed poses no threat to anybody else and, also, to encourage them to do the same to us. That has been, by and large, pretty successful in our region, particularly if you look at what has been achieved in South-East Asia and more broadly in the region through the ASEAN Regional Forum, for example, but also bilaterally.

There is a lot of transparency in the region and a lot of understanding. Transparency takes you a long way and it is very important, but it only takes you so far. Successive governments here and other governments in the region do recognise that they have responsibilities to their peoples to be able to defend in particular their own territories.

There is broad recognition throughout the region that whilst, for example, in my own view I do not believe any country in the region has aggressive tendencies towards Australia—full stop—if you ask what approach to developing our capabilities gives Australia the high level of confidence that if hostile tendencies did develop we could handle them you say, ‘You just need to take a very broad view of the sorts of capabilities that are present in the region, without saying, "We think it might be those guys" or "We think it might be those guys", and you take a broad view and ask what sort of capabilities would we need in order to defend ourselves against that.’

As long as you explain it in those terms, other countries can say, ‘Yes. Okay. We understand why they are doing it.’ They will do the same thing because they have the same responsibility, but they will not be doing it to their people, but they will not be doing it in response to what we are doing. They will be doing it, like we do, against the basis of a broad judgment about the sorts of capabilities that can be brought to bear against them.

There is a big difference between that situation and an arms race in that, if it is properly managed, you can have a growth in capabilities. It is worth making a point that the growth of capabilities in our region does have, as ministers have said before, a sense of naturalness about it. You do not have to infer from the fact of that growth of capabilities any particular hostile intention. If you manage it properly with sufficient transparency, that growth in capabilities can be steady, contained and managed, rather than exponential—as you get into really unstable situations, the classic arms race.

**Senator MARGETTS**—Okay. I would put it to you that some of the chief instabilities in our region might be, for instance, Bougainville over a resource and environmental issue. There might, in the future, be parts of the Philippines, like the Mindanao, over resource, development and environmental issues. There might well be other areas where there are severe tensions over the way development sometimes is being forced and may well be forced more in the future because of, say, the World Bank saying, ‘You’ve got to export more; you’ve got to forget about your subsistence farmers’, and so on. Nothing that we do on the ‘pointy end of defence’ is going to assist that if we are not helping countries in our region make better development decisions.

**Mr White**—I would not disagree that some or all of the situations you have mentioned could be a source of instability in the region. I just make the point that I do not think that exhausts the menu. There are some specific policy points in what you are saying that it is not my business to comment on one way or the other, but I would not disagree that the government, in thinking about security in that broader sense, needs to pay attention to a wide range of economic, social and political issues around the region. I would say that that is not sufficient by itself to manage the broad range of potential security threats, including military security threats, to us.

**Senator MARGETTS**—The 1987 Defence white paper—was that the Dibb report?

**Mr White**—No. There is a sort of little complexity there. The Dibb review was published in 1986 as a consultants’ report to the then minister, and based—to some extent, but not entirely—on the Dibb report. The white paper was produced in 1987. It was called *The defence of Australia*.

**Senator MARGETTS**—So, basically, what you are saying is repudiating that line of thinking from 1986-87?

**Mr White**—No. I think that the 1987 white paper was an effective response to our then strategic circumstances. But I think our strategic circumstances have changed to some extent. So I would not see it as a repudiation. I think where we are heading at the moment is an evolution of that line of thinking.

**Senator MARGETTS**—Thank you.

**Mr BEVIS**—I just wanted to have one go at seeing if we can put some dollars on this earlier discussion of Petro’s because two per cent of GDP does not actually buy anything; dollars do.

**Mr White**—Yes, that is right.

**Mr BEVIS**—So it might help if we could at least get some grasp of it. The two per cent GDP was mentioned also in the 1994 white paper. At that stage, I think it was



predicated upon a view of the then actual dollars anticipated to grow with the projection of the economy at that time, the projection of economic growth at that time being somewhere in the order of 3½ to four per cent per annum. If that was used as a base, you could fairly easily extrapolate a dollar figure using 1994 as a base. I wonder whether or not that is a formula which you think is useful as a guide to the committee in addressing our terms of reference. If it is not, you might care to offer a different formula, but it seemed to me to provide some benchmark in dollar terms that had at least a stamp of approval at one point in time.

**Mr Tonkin**—Yes. Thank you, Mr Bevis. The difficulty even back in 1994—we were discussing this—I can recall a discussion where it was pointed out that 0.1 of per cent of GDP was about \$500 million per annum. So what was two per cent? Did 1.95 equal two per cent? If you round it up, it does—1.9 rounded to two?

**Mr BEVIS**—Which is why I think I actually said, ‘about two per cent.’

**Mr Tonkin**—That is why the paper said, ‘about two per cent’, because for those of us who engage in the real time discussion of the actual quantum of the defence budget, you want a high degree of precision, which is why in that paper and later we have talked about real growth in the Defence budget being a better measure of what is required. If I recall, the 1994 white paper said that we wanted to have modest real growth, without defining what that was.

The minister subsequently, the present minister, again has talked about real growth in the defence budget. His view is that we need real growth. What does that mean in dollar terms? I would not want to put a ceiling on it but, if you were to look at real growth—it is probably not viable, it depends on strategic circumstances—if we had an economy growing at four per cent real, or three per cent real, and you wanted to maintain the actual purchasing value of defence dollars, then you would increase defence budgets by that quantum each year. That would be increasing the defence budget of the order of \$300 million to \$400 million real per annum.

**CHAIRMAN**—Compounding, too.

**Mr Tonkin**—Compounding each year another \$400. That is a judgment for government as to whether that is sustainable against other cost pressures in the macro-economic environment.

**Mr BEVIS**—But in terms of addressing the sorts of shortfall that Mr White described earlier, is that of the magnitude that would meet that shortfall?

**Mr Tonkin**—Let me put it this way: one per cent gives you a billion dollars over a decade. That is one per cent in one year, held for the rest of the decade, is a billion dollars. Another one per cent the next year held for the next decade is another \$900. So

even one per cent gives you a significant extra slice. The point I would make is that the defence budget has been at zero per cent real growth, or been reduced, since 1989. So we have been having our relative capacity to cope with any cost pressures eroded, if you like, since that point, which generates or contributes to the problems that we have had. For each one per cent, there is a billion dollars spent over a decade. Two per cent is \$2 billion. It is a matter for my colleagues to suggest how the size of the required capability fits into that.

**Mr White**—It is, for the reasons I mentioned, of course, difficult to give as precise a figure as we would like, but we have, you will not be surprised to hear, done a bit of work on this. Something happens around about the two per cent real growth point. At around about two per cent real growth, it does not become easy, but it starts to become understandable how you might, particularly in the next decade, fit in—not just to the investment program, which is some of what we are talking about, but the broader capability development program, including those personnel and operating costs that Rob was talking about. It is something like two per cent sustained over the longer term. You get the additional flow of funds that makes the difference between us being able to look into the next decade and say, ‘That’s where we’re going to fit a replacement for the F18; that’s where we’re going to be able to think about whether the army needs to be bigger and more ready than it is at the moment; that’s where we’re going to start thinking about the future shape of our surface ship capabilities—and, equally important, that’s where we can start to make provision for the fact that if information technology continues to develop in the next 10 years the way it has in the last 10 years, then it is going to do to us what it has done in the last 10 years, that is, provide us with some huge opportunities at significant cost.’ Information technology is one of the real uncertainties in this.

We are now thinking about doing things with information technology which we did not contemplate being able to do 10 years ago, but we are not able to do them for nothing. So there is a sense in which we might, 10 years from now, be looking for money to invest in, for example, advanced surveillance capabilities of a sort that today, I will not say we can hardly imagine, but I certainly cannot give you a nice big fat document that tells you exactly how it is going to work and how much it is going to cost. So one of the things that we are bearing in mind is the need not just to replace the things or replace the capabilities that we know we are going to need to replace—and I do not mean by buying another aeroplane to replace the F18. It is a different way, maybe, of doing the whole air superiority task. But it is that sort of thing.

It is a question of whether there are not going to be whole new ways of achieving defence outcomes, which are going to involve different kinds of dollars, but which might be very important to us. Our unique strategic circumstances, involving as they do so much space, are such that the information technology side of warfare does offer us uniquely important opportunities.

To get back to your point, it is at about the two per cent line that—I will not say it

all becomes easy; it does not become easy—it starts to become thinkable. You can start to get your head around it. I do not want to put too much emphasis on the two per cent line. It is confusing because the percentages do not refer to two per cent of GDP. I am talking about two per cent sustained real growth off our present base into the next—

**CHAIRMAN**—Could we put that another way. If you equate one per cent with \$300 million a year, you said in your introductory statement that we could not buy one new ship or one new aircraft on the present funding base. To replace the tactical fighter, for example, you would be looking at an outlay well in excess of \$3 billion and at a rate of—

**Mr White**—Yes, well in excess of \$3 billion.

**CHAIRMAN**—Well in excess might be a multiple of that.

**Mr White**—Ten is more likely.

**CHAIRMAN**—Yes, but I was just using \$3 billion as a notional figure. At a rate of \$300 million a year increase you are in for a 10-year program just to acquire that capital—

**Mr White**—That is right. Some of the dollars in our present base would be devoted to that task. It is not as though we would be relying on the increase for all of that.

**CHAIRMAN**—Sure. It is an illustrative case.

**Mr White**—It is an illustration of what you get for that sort of scale. This is one of the great public policy dilemmas of defence that the sums of money are very large. It is important for us in the organisation, and for other elements of the government system, to recognise that when we talk about percentage growth on something which is already \$10 billion we are talking about very large sums of taxpayers' money, but it does not buy you very much. You cannot buy ships in ones and twos. If we look at, for example, the F18 it is not a matter of saying that a new aircraft might cost us \$30 million, \$50 million or \$70 million a copy, it is that you need to buy a capability so you have to make the spending in quite big lumps. You cannot fine tune it as much as you might like.

**Mr Tonkin**—Just to complete this, I have two things that we do not want to happen. The first thing we do not want is promises of substantial real growth which are not deliverable because we have experienced that in the past and it massively disrupts the planning process. You end up having to run a series of dummy books against what is promised and against what you predict will be the actual deliverables, and that disrupts our planning process.

The other thing more particular than that, because you could manage that, is

inconsistent funding—significant swings and variations over the years in the level of funding. If we have some idea, with a reasonable degree of confidence within certain sensible bounds, of what we are likely to get then we can start addressing the programming of newer capability within our existing investment budget plus whatever proportion of real growth we get and make some sensible judgments. They are two quite important things that we really would like to avoid in trying to do this efficiently and sensibly.

**Mr BEVIS**—In the period before 2001 you have said that you think, with guidance, you can meet the requirements within projected budgets. I just want to query that. There is something very nice about the year 2001 which is that it is at least one and probably two elections away from where we are now and, in any event, it is four years down the track and any decision about money that is four years from today has got to be a good decision. If we can do what we need to do with the funds that are currently available, why are there so many cases of restrictions on exercises, on aircraft flying time? Why are we in a position where a significant number of units are without certain types of ammunition and, in some cases, nil allocations of ammunition for live firing and things of that sort? If we have the dough we need until the year 2001, why have we got those problems?

**Mr White**—There are a few elements in that and Vice Admiral Barrie may well want to comment on some of them, but I will make a broad point. It is certainly not my view that we have enough to 2001 and there would be no point in spending any more. In particular, I have a view that what is important for us is to build up—and this goes to the point that Rob was making as well—spending, not too quickly, it is no good giving us an extra billion dollars each year and asking us to spend it very cleverly because it takes time to spend money in a really cost effective and efficient manner. Our preference would be to have a sustained increase in defence spending starting as soon as possible, partly because there are some specific things of the sort you have mentioned.

The point I was making about the adequacy of the current funding is that we can do quite a lot of capability development within that funding. There will always be constraints and there are some constraints we would very much like to get ourselves out from under if we could. If you ask what sorts of problems arise from the present level of defence spending, what I would draw your attention to is not what it does to us between now and 2001—although there will be problems like the ones you described—but what it does for you in 2005 and 2010. The time to solve that problem, is not in 2004 when somebody turns around and says, ‘Here’s an extra billion dollars a year, see what you can do with it.’ You just cannot buy front-line combat aircraft from Dick Smith’s. You have to go and order them a long way in advance. The time to address that problem is to start within the next few years.

**Vice Adm. Barrie**—If I could just pick up on that. I think the dilemma is the judgment between the investment program—that is, looking at the future capability

requirements of the defence force—and what we are doing now. That is the preparedness equation, readiness and sustainability. Every dollar that goes into readiness and sustainability is a dollar we do not put into the capital program or to develop capability. So there is always a sense of judgment about how much is enough.

If you go out into the flying units and say, ‘How many flying hours do you want?’ I think we would all have a fair guess that you could not give us enough. Each flying hour is quite expensive. There is a very fine judgment, in my view, about how much is really enough to maintain the professional standing of what I believe to be, professionally, one of the finest defence forces in the world. I think that continually gets demonstrated—albeit, not on a scale of the sort of significance we are contemplating today.

The issue about how much ammunition is enough; how much exercise time is enough, I think is quite complex. We do have a range of judgments about how much is not enough. For example, in my last position in the navy, we certainly had the view that less than 120 days of sea time for a major surface combatant that is supposed to be operationally ready, really does attack performance standards. We are talking about the team being able to do its things, strut its stuff if you like. The fact of the matter is, if those ships do not get to sea and do that sort of stuff for at least 120 days a year, you will not have a professionally ready outfit. The same is true of each arm of the defence force. So those judgments, I think, are there. We do not, as a matter of fact, invest much more than what we think we need. It is really to go back to that challenge of a dollar on that, is not a dollar we get for the other.

Broadly speaking, our judgment for today is: we are at the minimum level of investment in readiness and sustainability. We are trying to maximise the future development of the ADF. So we are always concerned when we hear about some of the problems that appear to be going on at the front-end. The classic case is that there are not enough rounds for this, or the production line has not been able to deliver X. There are a thousand reasons. People will tell you why those things are a worry, and they are a worry. We solve each case as they crop up. I do not think there is any scope to reduce the level of investment in our operating cost, without actually attacking that professionalism. It does need to be monitored; it needs to be watched. But that is the reason we face that dilemma each year.

**Mr BEVIS**—I must say that I am still not clear how the current funding to the year 2001 meets the needs that we just discussed.

**Mr Tonkin**—I think perhaps one last point is that there is a degree of stickiness in the sub-allocations of money within our organisation. If we could better allocate our resources, up to some point we could actually generate a bit more efficiency in the utilisation and meet some of those needs. One of the things that we are confronting in the reform program is trying to change the nature of the culture of the place so that we get a more clear, considered and consistent focus upon supporting capability, rather than perhaps

other cost centres. It is a matter of working through some of those processes so that the resources and the processes we do have are managed and you overcome the sorts of issues that you indicate. So these shortages and the spares problems are predicted and the money gets to the right place, rather than perhaps getting spent on some other objective which, while laudable, is not as high an objective.

**Mr BEVIS**—So we should not look at any more money before the year 2001?

**Mr White**—Let me go back to one of the points I made in my opening statement.

**Mr BEVIS**—I thought I gave you a dorothy dixer actually. I was waiting for the dorothy dixer answer.

**Mr White**—I am about to give it to you. One of the things you do not buy on the present level is increased readiness. There is a significant argument that, in making management judgments, one of the things the government might want to do is spend more money on readiness, and it goes to all the things that Vice Admiral Barrie was talking about.

There was always going to be a debate within the Defence organisation and a debate for government as to how much of your money is spent on present capability and how much you spend on future capability. It is a very difficult balance to strike. One of the elements of that is you want to make sure you are spending no more on current capability than you need to, and that is inevitably going to produce some tough decisions which some people in the organisation are not going to like. I do not think we have automatically got a problem because some people are saying they have not got as much ammunition. At least it shows we are not throwing too much at them, if I can put it that way. That is one way of making big mistakes in defence.

**Mr BEVIS**—Zero allocation is certainly not going to mean you are throwing too much at it.

**Mr White**—I am prepared to concede to you that zero allocation—

**CHAIRMAN**—With the greatest respect, I do not think this is really productive with where we want to go.

**Senator MARGETTS**—I want to ask a clarification question on the same point.

**CHAIRMAN**—There are some people who have not had a question. I call Dr Southcott.

**Dr SOUTHCOTT**—Within the defence force, are you undergoing a rethink—

**Senator MARGETTS**—I have a point of order, Mr Chairman. You have made your own clarification questions on the issue of funding, and I just want something on this same question before we go on to a new question.

**CHAIRMAN**—We will come to you, Senator Margetts.

**Senator MARGETTS**—But other people have been able to make clarification questions as we go along.

**CHAIRMAN**—You had a great licence earlier in the morning.

**Senator MARGETTS**—I am just asking on the same line as what has just been asked now.

**CHAIRMAN**—So is Dr Southcott. I call Dr Southcott.

**Dr SOUTHCOTT**—Within the Australian Defence Force, are you undergoing a rethink between the relevant emphasis on protecting the air-sea gap and looking at forward defence? Has that got any implications for what sort of equipment purchases you will be making in the future, given that for the last 25 years we have been focusing very much on the protection of the air-sea gap?

**Mr White**—Let me just define the terms of the argument a bit. I do not think the choice that Australian governments—or, for that matter, strategic policy makers—face is one between defending the air-sea gap and forward defence. Forward defence is a very specific set of policies, very directly tailored to a particular period in history. That is one in which Australia's security was seen to be threatened by insurgencies and infiltration in South-East Asia and we had adopted a policy which has some very specific characteristics to respond to it—that is, we structured forces to work primarily with allies. We based those forces in South-East Asia and—

**Dr SOUTHCOTT**—Perhaps if I could clarify. What I meant was the capacity for the defence force to operate in areas of regional insecurity.

**Mr White**—That is a much broader proposition. Since Australia started rethinking what to do instead of looking at forward defence—it was initially back in the early 1970s within the organisation and from the 1976 white paper on—there has been, if you like, an ongoing balance between the way in which you focus the primary defence effort on the defence of the continent and the way you take account of the fact that Australia's strategic interests do not end at our shoreline, at 1,000 nautical miles—to draw a line at random—or at any particularly defined point. Governments have continued to recognise the need in defence planning to take account of the fact that, partly because of unexpected events and partly just because Australia's strategic interests are, in the end, pretty broad, you can end up deploying your forces to all sorts of surprising parts of the world—Rwanda is one, the

Gulf is another.

The way in which you manage that balance is an issue which has always been under review, under discussion and under debate within the defence organisation and in different ways, in different times and with different personalities within the government. One of the reasons why governments have successively believed that an emphasis on defending Australia by focusing on our air and maritime approaches rather than on land defence was a good way of doing it is because it provides forces with a maximum flexibility that allows you to do both.

In public policy, the objective is always, if somebody asks you to make a choice between A and B, you try to find a way of getting A and B together for the same price. You try to avoid unnecessary choices. This is a classic example. In developing the ADF, we do not want to make a choice between developing a defence force which will just do defence of Australia or developing a defence force or defence capabilities which will just do things in the region. You want to develop a set of capabilities which gives you the maximum opportunities to do both. One of the attractions of having a focus on defending Australia in its air and maritime approaches is that it gives you the sort of long range maritime and air capabilities which are also appropriate for Australia to contribute were it necessary in some sort of regional contingencies.

In a sense, the answer to your question is that this government, or any government for that matter, does not face a choice between focusing on defence of our maritime approaches and focusing on regional interests. It faces the choice of, 'How do you develop a force structure which best gives you the biggest possible range of options to do both?' I think that is what this government is out to do.

**Dr SOUTHCOTT**—In your opening statement, you mentioned what you would be able to purchase with your current budget levels and the fact that you would not be able to have any new combat aircraft and no increases in the land forces. What about information warfare capabilities? Do you have that? Are you able to purchase that within current budget funding? Do you actually have planning for that within the budget?

**Mr White**—Let me be precise. Information warfare, from the way we use the language—and I just want to make sure we are using the language the same way—is that it was the idea from either the defensive or the offensive point of view targeting other countries' or other forces' information systems as a way of achieving national strategic or maybe military strategic objectives. It is a very new field. It is a very complex field and it is a field in which people like me will not be inclined to say very much in public.

We do take information warfare very seriously, we are putting a significant effort into it. So far information warfare has not proved to be the sort of the thing that requires very large investment in terms of dollars. It does not come for free, but you do not have to buy an information aircraft carrier to undertake information warfare. What it does



require is a very high investment in some very bright people—mostly young people and very computer literate people. We are taking that very seriously.

I am happy that our investment in information warfare is something that we can continue to manage. But where we find it really demanding is our capacity to attract and retain the sort of, to be blunt, bright kids who are the information warriors.

**Dr SOUTHCOTT**—I guess what I was thinking of was broader in terms of—

**Vice Adm. Barrie**—Can I just say that on the other side of that is what we call knowledge based warfare. It is not a new field. I think those of us who have been in the business have known about command and control arrangements and systems over many years. But there is no question that, within the last 10 years, there has been a high degree of focus going on how to exploit the sort of information technologies that are now available to execute what I call knowledge based warfare.

I guess, at present, we do not know the limits of that because there is a lot of research now going into how you might exploit, for example, the presentation of information to human beings in order to reduce the decision cycle. Some of what we see in the video arcades that our kids frequent is representative of the sorts of technologies we are now thinking about in command and control systems. No longer will we have symbols and codes, if you like; we will try to make the picture entirely intuitive. When you do that you can make the decision much more quickly because you do not have to assimilate the information, convert it into something that makes sense and then make the decision. It is rather striking to see what sorts of influences those developments can have.

The second part of the knowledge-based warfare issue is the ability to coordinate the delivery of combat power. In today's world the closest organisations that I know about that are doing this are police forces. Police forces in large urban areas do need to have reasonably sophisticated systems for coordinating the arrival of force, if you like, to deal with the situation. Some of them have been doing a lot of work on how you go about in the most effective way the business of coordinating the arrival of 10 patrol cars with two people in them to deal with a situation that has emerged without notice.

They are the sorts of things that I think are going on in the military throughout the world. We do not know what the limit looks like. It is a very exciting field of research. I do not think it is a big dollar spender. At the end of it all, I think it is a sensible question for expenditure, but I do not think it is a big ticket item along the lines of the new aircraft and the new ships that we have been talking about.

**Mr White**—As Vice Admiral Barrie said, that broader sense of information is right at the heart of where our investment needs to be. To put it into a whole system can involve a lot of dollars. Getting information displayed in such a way that people can make decisions faster is what winning conflicts in the future is going to be all about. If side A's

missile and side B's missile are equally good, it is the person who gets it off first who is going to win the engagement. If you get enough of those, you will win the war.

The trouble is that the sort of presentation Vice Admiral Barrie is talking about requires a lot more bandwidth to move around. One of the things that shapes our thinking about investment over the next decade or so is the way in which we are going to need to invest a great deal of money in the communications bandwidth in order to ensure that we can move the information we need around the place. That side of the business is a very big driver of costs.

It goes back to the point I mentioned before, we are not in a position to predict how we are going to want to spend some of that money because we are not in a position to predict 10 years from now which technology or which kind of capability is going to be the one we are going to take advantage of. The whole knowledge side of the use of armed force is a very big deal.

**Dr SOUTHCOTT**—Looking around the region and thinking of some of the things the defence force might have to do in the future, are there any gaps in capabilities for the sort of operation that you can easily envisage where Australians have to be rescued from Fiji, Port Moresby or Cambodia? Is there any gap in your capability there?

**Mr White**—Let me put it this way—and I am sure Chris would have a view as well—it is very easy to think of things we cannot do at the moment. Let me give you a specific example. A few months ago Vice Admiral Barrie commanded a very effective assisted evacuation operation from Cambodia, which went well and succeeded in its objectives. Our capacity to have achieved that operation in the light of significant opposition on the ground from any one of the elements of Cambodia in the sorts of time frames we did—that is, within a few days; very limited—is a good specific example of one of the things I mentioned we cannot do—expand our land capabilities. That is a good example of the sorts of constraints we face.

**Senator MARGETTS**—I have a point of clarification in relation to the figures on GDP. We still did not get the actual dollar figure. Mr Tonkin, could you remind me of Australia's current GDP?

**Mr Tonkin**—Australia's national GDP?

**Senator MARGETTS**—Yes.

**Mr Tonkin**—It is about \$US400 billion.

**Senator MARGETTS**—You are suggesting that two per cent of that would take us to—

**Mr Tonkin**—I said US dollars, so two per cent Australian is \$10 billion. Let us say \$US7 billion is the defence budget. Our defence budget is currently 1.9 per cent of Australia's GDP, below two per cent. On current estimates, it will trend down to lower than that over the next few years. If the defence's budget stays stable and the economy grows three to four per cent per annum real, our share diminishes over time.

**Senator MARGETTS**—Thank you.

**CHAIRMAN**—I think we will adjourn for 10 minutes for a cup of coffee and then get back into it.

### Short adjournment

**CHAIRMAN**—I would like to reiterate that we do have a series of questions which form a coherent line through the area in our briefing papers, and I would like to stick to those now as much as possible. We were dealing with the general issues point of view. In the forthcoming strategic review, are you anticipating any major changes with respect to capabilities?

**Mr White**—Naturally, I would not want to foreshadow in any great detail what the strategic review will say, but I think I can give an answer that is broad enough to be useful to the committee. I think the strategic review will provide the basis for a change in emphasis in our investment over the long term but not—

**CHAIRMAN**—A change in emphasis rather than capability. Can you differentiate?

**Mr White**—Yes. It will not be that we will be deciding to entirely move out of some kinds of capabilities and move into new kinds of capabilities. The balance of investment between different types of capabilities will shift in the light of the judgment of a strategic review, but not in ways, as I say, that will fundamentally change the structure of the ADF.

**CHAIRMAN**—So, basically, the funding provisions in the pink book which deal with years—

**Mr White**—It will certainly have some effect on the pink book, for example, on the way in which we prioritise investment programs. As I say, it is not that we will rip the pink book up and start again from scratch. We will be giving higher priority to some things and a lower priority to others, but it is not as though some things will disappear entirely and some brand new things will appear from nowhere.

**CHAIRMAN**—You were talking about AEW and C, which is a long overdue capability. There is some ambiguity about the funding of that, isn't there? Although the work out of the tender evaluation and the rest of it are well in hand, the actual acquisition

funding has not yet been provided for, has it?

**Mr White**—The government has not yet given approval for the expenditure for acquisition, if you like, the big dollars for acquisition. That is an issue which will soon be before it.

**CHAIRMAN**—When you say soon, do you mean within the next 12 months or the next budget or something like that?

**Mr White**—Yes, well within the next 12 months.

**Mr GEORGIU**—Will the expenditure for that be in addition to your ongoing—

**Mr White**—No. Any expenditure on AEW and C would be within currently programmed Defence expenditure. We would not be seeking any increase in Defence expenditure to cover AEW and C. That is programmed within our current budget.

**Dr SOUTHCOTT**—In previous hearings we have had the air force indicating a shortfall in funding for logistics of about \$400 million as well as large impending additional costs for personnel and operating expenses relating to the AEW and C project.

**CHAIRMAN**—In relation to the funding of the AEW and C, are you talking about solely the acquisition of the hardware or are you doing a project cost to cover the manpower, training and operational side of it as well?

**Mr White**—We are looking at the project costs to accommodate all the things that are involved in acquiring the equipment, but we are also paying careful attention to the personnel and operating costs—very substantial in the case of AEW and C—of what is, as Rob mentioned before, a new capability. Therefore, there are no offsets from existing things.

In terms of Dr Southcott's point, the air force has a shortfall. In other words, they do not have anything to offset the operating expenses of AEW and C. It is therefore something for the portfolio level to try to find those dollars, and that is something that we are giving careful attention to. We are, of course, very careful to make sure that we are in a position to fund personnel and operating costs of new capabilities before we commit ourselves to acquire them. That is something we have in hand.

**Dr SOUTHCOTT**—What do you expect to be the shortfall for the AEW and C logistics and operating costs?

**Mr White**—I would not think of it so much as a shortfall. It is what funds do we need to find in order to fund the personnel and operating costs.

**Vice Adm. Barrie**—In my view, I think that question goes to the provisioning of logistics to support a new capability. That is going to be quite a complex question because I think there are a whole range of new approaches to doing Defence's business that might well change what would be a traditional view of that. Let me give you a simple example: the maintenance of an AEW and C aircraft might be totally contracted out. We might not have a single air force person doing the maintenance of those aircraft under new systems. I do not know the answer to that at this stage, but the provisioning for logistics support is one of those things that we will be chasing under the Defence reform program.

**Mr Tonkin**—The information just to hand suggests that the mature figure is about \$100 million per annum. That is with the full number of aircraft up and operating.

**CHAIRMAN**—But, Vice Admiral, whether the maintenance is done by a civilian contractor or uniformed personnel, you are still paying money for it. It is not cost free.

**Vice Adm. Barrie**—No doubt about that.

**Mr White**—There is a very important broad point there, Mr Chairman, and that is that when we think about the demands on the Defence budget over the next decade or so, these personnel and operating costs of major new capabilities are a very important element of it. Whilst in some cases there are offsets from existing capabilities, we nonetheless do find that the cost of maintaining and operating this equipment is a very significant expanding element of our overall budget.

**CHAIRMAN**—Let us move to a different area, and that is the conceptual basis on which Australia's defence has been based vis-a-vis the region, and that is the maintenance of the technological edge. If the technological edge has not eroded at the moment, it is in the process of eroding. Conceptually, how are we going to maintain a military equivalence or superiority if it is not through technological means which, at the end of the day, were bought out of increased expenditure vis-a-vis regional powers?

**Mr White**—You are quite right. Our technological edge, I would say, has to a significant degree already eroded. The capabilities in the region are equivalent levels of technology to our own. We would say we retain a capability edge in that we believe we have, in terms of the way our capabilities interact, our systems as a whole work and, in particular, the quality of our people, a better capacity to apply that equipment to achieving actual strategic outcomes than other countries in the region. But we are very far from being complacent about our capacity to maintain that advantage into the future. To get to the point of your question, there is no alternative to spending money to achieve that. We will need to—

**CHAIRMAN**—That is really the heart of the question, isn't it?

**Mr White**—It is. We need to be able to invest in capability ourselves in terms of

the capital investment, but we also need to invest in the personnel skills—that will be the other decisive element. Our approach to that is not a blanket one. I think one of the changes in our strategic circumstances is that whereas in the 1980s we believed, perhaps mistakenly, that we could forever maintain a decisive technological advantage in every area of capability, we now recognise we have to be more selective in the way we go about maintaining our capability edge, that is, we have to find those areas of capability and, within those capabilities, those areas of technology where we can most cost effectively put our resources to maintain the capability edge we need. Likewise, on the training side we need to find those areas where we really need to put our big effort into having the very best people available and spend the money required to do that.

That is a way of containing or limiting the sums of money that will be required to maintain that capability edge. It limits it; it does not do away with it. That is one of the things which drives the size and shape of both the investment budget and these personnel and operating cost budgets that we have been talking about.

**CHAIRMAN**—One of the fundamental propositions, then, for this committee is that, with the erosion of the technological edge, that increased expenditure is therefore inevitable to give a capability increase.

**Mr White**—Yes, I would agree with that.

**Mr GEORGIU**—I will continue a theme. There have been inefficiencies found in defence—DER was a response to some of them. What major remaining areas of inefficiency do you think you can deal with or aren't there any?

**Mr Tonkin**—I do not think the major areas of inefficiency we have yet to deal with are ones which are going to generate significant dollars. The area of further improvement that we want to pursue is the way in which we manage our resources and better target them. That will generate at the margin some better use of our existing resources, but I would probably count that in the tens of millions rather than in the hundreds of millions. If we further develop our charter of accounts and our analysis and allocation systems, that should enable us to make better informed choices and will generate greater productivity.

Putting a number on it, I think, is difficult. The context I would put it in is that once we do that it might have the equivalent effect of one year's one per cent real growth—or something, maybe; the best case—but that is at the outer limits. As I said before, we have generated about \$1.5 billion over about eight years out of the process, which is fairly substantial. The defence reform program went round and kicked over every rock it could think of. It was done externally, so that people who were opposed or who did not like some of the things being questioned—

**Mr GEORGIU**—Sorry, I want to make my position clear when the notion of

opposition is raised. I do not have any opposition in terms of the quantum of expenditure at any particular level; my problem is with efficiencies within whatever quantum is determined.

**Mr Tonkin**—My argument would be that the defence reform program for the organisation aggressively looked everywhere it could think of where we could get substantial resources. There were no targets stuck there. It was whatever we could build it up to in a genuine and sustained way. I would argue in terms of major efficiencies that we are close to the edge, but we will continue to refine it. We will continue to apply information technology and such like to make our process better and, in the same way that warfare knowledge is applied, we will apply that inside the running of our organisation. That will help us get more efficient in our use of resources.

**Vice Adm. Barrie**—If I could just add to that, because I think it touches on a very important point. The defence reform program is quite a new approach to making continuous improvement inside the defence organisation. It has got a very important characteristic in my view and that is that there is no input. There is no sunset clause to the sorts of changes we are trying to put in place in the defence organisation, for the reason that we do not want to create a climate where people think we have suddenly got there and now we can stop doing that stuff.

What we are doing, in the most macro-level terms, is creating a new culture inside the organisation. This is actually all about harnessing peoples' intellectual capacity and their skills to try to make the organisation as value for money as possible. That is going to be an ongoing program. What the DER gave us was a range of opportunities to be explored in the first instance, but we will have failed in the quest if, having made those sorts of things, people feel that this quest for efficiency has somehow disappeared.

**Mr GEORGIU**—Yes, but if we are talking about culture, we already have had a definition of potential further expenditure savings, within the limits, amounting to tens rather than hundreds. I would like to probe that a bit.

**Vice Adm. Barrie**—But the central objective of the blueprint that we had in April was to find 20 per cent of overhead, administration and support and to use that more effectively in delivering the defence output. That is a pretty good start. It is a very bold start, to be truthful. That is going to take all of our people working on the problem to achieve. You will not achieve that if this is simply a mandated program driven from the top. That is why a cultural change is important.

The second issue is that there is a huge intellectual capacity inside the organisation which is capable of dreaming up different ways of doing our business and we need to harness that energy. But the game does not stop once you have got that 20 per cent. We have got to go on saying to our people, 'If you have got a bright idea for improving the way we do the business of this organisation we need to know about it and do it.'

**Mr GEORGIU**—Have a look at Health.

**Mr SINCLAIR**—I wanted to try and get a bit of a handle on what the hell we are trying to do. I still have not really got that because it seems to me that some of the factors you mentioned in your introduction you really only touched the periphery of. Part of the problem we have in working out how much money we need for defence is not just because we have a position that we know now, but we have a number of extraordinary circumstances which you have not taken into account.

One of them is the end of the Cold War, which you mentioned. The product of that is that the American's are downsizing the defence capability. You have not mentioned whether, in forward planning for defence, you think that we ought to take what might be a window of opportunity because they are downsizing in some respects to augment our capability, or whether you think that is just a factor that we can have in mind looking at the normal priorities for defence spending.

There is also the problem that we have a range of platforms about which there is some contention as to their adequacy. In about 2005, or thereabouts, you are either going to have to refit those platforms and make them more capable—that is apart from the augmentation that goes on in the normal course. You have a lot of platforms that are going to have about a half-life refit in the first decade of the next century. I think it is important, if we are going to have a look at how much money you have got to spend, that we know whether you think that with the platforms we have you are going to be able to make do with a half-life refit or whether, because of the change in circumstances, with American downsizing and the changes to strategic situations, we might have to be more self-sufficient.

I find it difficult with those two factors—whether there is a window of opportunity and whether the time is now appropriate for us to re-examine the adequacy of what we have for the task ahead—and I do not think you have really addressed that. We will leave that to start with. I want to see where we are coming from to know how much money we need, and I have not really yet felt that you have got there. It seems to me, in each white paper, that you are moving along with a bit more of the same and some shifts here and there.

I accept the point that Rob made that we have been pretty appalling in setting financial targets that have never been realised and you never had the money to spend. I accept that. But putting that aside, really is it a time now when we should look at something more than we have been doing? I would really like to get your answer to that to begin with. I have only mentioned a few of the arguments, obviously.

**Mr White**—There are a lot of very important issues there. I do not see how the end of the Cold War is going to significantly reduce the US engagement in our region. Although their defence budget has gone down to \$US250 billion a year, I must say I am



not concerned that US capabilities overall are going to reduce to the point where they are not going to be able to fulfil what you might broadly call their strategic responsibilities in the region.

That does not mean that the future shape of US engagement in the region is not a significant factor and uncertainty in our strategic thinking, and it does not mean that it is not something we need to pay attention to in thinking about the size and shape of our defence forces. In particular, whilst I would not say that US downsizing provides a window of opportunity for us, I would say, if I can put it this way, that it provides a window of responsibility for us.

That is, with the US maintaining a different kind of presence in the Asia-Pacific region—one more based on regional rather than global issues and one relying more on the willingness of its regional friends and allies to support it and work with it in coalition, both in peace and war—then one factor that we need to give careful attention to is how adequate our forces are to support US forces in the region. In coalitions in conflict, if that should occur, in some circumstances at the moment that is hard to predict and, for that matter, in peace time in all the deployments that the US forces undertake around the region and contribute to that are so significant to regional security.

It goes back to Dr Southcott's question earlier: this is a factor for the government in thinking about the way in which we balance the development of our forces for the more narrowly defined defence of Australia task and the broader task. It contains some very important capability drivers and cost drivers. It is very important that Australian forces remain interoperable with United States forces. A few years ago interoperability meant something relatively simple like you needed to have good communications channels, you needed to speak the same language, have common code books and that sort of thing.

As information technology becomes a more and more important part of the way we fight wars and as the sorts of systems that Admiral Barrie was referring to before become a bigger part of capability, then the need for us to keep up with the United States in the investments of the United States in information technology is central to our capacity to continue to operate with them. This, we are finding, is very demanding in budgetary terms.

We need to make sure that our aircraft and our ships, in particular, have the capability to work with the United States, and that means that we need to have if not the same systems then comparable and compatible systems with the US. That is very demanding because the US is spending a lot of money and buying very capable systems. For us to keep up with them, we are having to spend a lot more money than we did in the past on these sorts of things. This is a real driver of upgrades. It is a big determinant of how much we have to spend on the sorts of upgrades we have been talking about.

The other point is that the pace of US investment in new types of capability,

notwithstanding their downsizing, remains high. When we, for example, think about the sort of aircraft we might buy to replace the F18 one day, we are looking at some very sophisticated platforms which, although the US is working very hard to make them as cheap as possible and they are being fairly careful about their budget themselves they are, nonetheless, very sophisticated platforms with very sophisticated systems that are going to come with a pretty fancy price tag. The other element of the way the US is evolving, which draws us into higher expenditure, is the demands placed on us by the way in which the platforms themselves, quite apart from the systems, are evolving.

The second part of the question is, I guess, what does this mean for the sorts of capabilities we need to get? As I said, I do not think the US presence in the region is likely to reduce in strategically significant terms, and I do not think there is a sense that we have to do more because the US is withdrawing. I think we do need to be sure that we do enough, and that may require us to do more, to support the US in the region in these new strategic circumstances. That is going to impose demands on the size capability, the range and, particularly, the readiness of our forces. When I ask myself, 'Are we doing enough to ensure that we could work with the US in a regional contingency?' I must say that the readiness is one of the elements that really worries me.

That is a good example of the sorts of trade-offs we were talking about earlier: if we were to invest a lot of money in upgrading platforms, we will have less money to maintain those platforms at a level of readiness that will allow them to join at short notice with the US, or anyone else for that matter, in a contingency in the region or further afield, if that is what the government decided to do. That is one of the real pressures we are facing at present.

**Mr SINCLAIR**—Coming from that are elements that flow in terms of how you prioritise and how you are spending your money. It is not just a matter of how much; it is whether the priorities are right. Are we allocating enough money? For example, you talked about intelligent warfare, and we saw something of the communications systems and the problems of Tandem Thrust. There is no doubt that we are way behind the United States in communications. Is that something that, in the short term, we can allow to continue? Therefore, is our lead time in introducing our new communications systems too slow? Are we in a position where, really, instead of the traditional areas where we have been spending money, we have to relocate priorities? I query whether we are spending enough money in the area of defence, science and technology. We seem to have cut it down. So if we are going to look at the handle of the whole, are the components and the way in which we are prioritising appropriate?

**Vice Adm. Barrie**—I think you have just sketched what is a pretty fundamental classic dilemma for us. My characterisation is in the field of war gaming but, in a sense, I have seen the US spend a lot of money developing new systems, and some of it turns out to be money that does not actually lead to very much in the future. Some of it, of course, leads to very exciting changes. A question of judgment for us is, of course, where do we

make the sensible decision to suddenly leap into the next range of technologies about compatibility with the United States? I think we are facing such a decision now. In other words, we have really maintained incremental changes to things like communications systems over the last 20 years in the United States or, indeed, even in global communications terms. There have been huge advances in the way technology is used. I think the time is here for us to leap off into that.

There is a risk, of course, of not keeping pace on a day-to-day basis with those things, but I guess my judgment about that is that we simply cannot afford it. A country of our population size does not have the sort of industry base which would sustain unwise investments in some of those sorts of technologies. So it is always going to be a bit of a challenge: where do you leap into the next range of technologies?

To go back to our earlier discussion, the level of available bandwidth in the battlefield in the future is a serious issue, if we are going to have the sorts of knowledge based warfare that we talked about.

**Mr SINCLAIR**—The flow-on from that, essentially, which is relevant to our inquiry is, given the present allocation, the defence expenditure review and the DRP and the flow-on from that, do you have enough money to do as much as you believe you need to do for these new technologies? If not, how much more money do you need? That is in addition to those ordinary parameters of operation you were talking about before, because that seems to me to be quite vital in trying to make some judgment on future defence funding.

**Mr White**—I think the best way of answering that question is to say that we will need to be spending, and I believe we will be spending more on this whole information side of a capability than we have in the past, and that is going to squeeze how much we have available for other things. At the levels of investment that we now envisage, we will be introducing those new capabilities slower, and it will be harder for us to take those decisions that Chris was talking about, about leaping ahead to the new technologies than we would like it to be, and that that does carry a risk. It carries a risk, for example, that we will not have kept close enough to the United States to be able to operate effectively with the United States in a coalition in a major regional contingency.

It will also carry the risk that we will not, ourselves, for our own defence force, have acquired the leverage that that technology is going to need to deliver to us if we are going to maintain our edge. We are happy that we have an investment program of C<sup>3</sup>I which is, if you like, balanced and cost effective within the present financial guidance, but keeping ourselves to that guidance does entail some significant strategic risk that our capability will not be adequate in the case of the unexpected circumstances, and that we will not be taking as much advantage of what the new technologies have to offer as we would like to.

**Mr Tonkin**—If we had some more resources globally which we could allocate to that area, we could do precisely what you are saying, taking the risk of cutting the decision cycle down for C<sup>3</sup>I type equipment, taking the risk that we may spend some money on some things which will turn out to be not that effective, because we cannot afford the time we normally take to contemplate, assess, judge, test, all that sort of stuff, because, by the time you do that, you are two generations behind the technology. I think it is about an 18-month cycle on some of this stuff between one generation and the next.

We must make quick decisions and investments in this. To the extent that some of that is risk taking in its nature, then it would seem prudent not to do that within the money that you have already got allocated for more assured and considered acquisitions. The same thing on science. You made a point about defence science. I do not believe they actually have cut defence science, but it is a significant area.

**CHAIRMAN**—That has gone down over the last 10 years.

**Mr Tonkin**—When we talk about cutting defence science, we are not talking about cutting the output of defence science. If Dr Brabin-Smith was here, he would argue that while expenditure on defence science has gone down, it has gone down in two areas. It has gone down in the overhead cost of the activity, which would seem a sensible thing to harvest, and it has gone down in the amount of support staff and administrative costs. In terms of the number of scientists that we have engaged, they have actually gone up. Our actual horsepower in science, our actual output in science, has gone up, not down. Now, we are postulating increasing it further.

**Mr SINCLAIR**—I accept that that balance is correct, but the output has not gone up to any great degree. Really what I was getting to—and you skirted around it and have given us a general answer—is that we have got to put numbers on all of this. There are two aspects of numbers that I am not sure about in your answer. Can you quantify how much you need to do it? Secondly, can you do it as Defence, or should you do it, for example, in conjunction with the communications or whatever Richard Alston's new departmental label is? Are there other people with whom you can move in this area? Is there a way by which you can put a handle on what sort of money, in a percentage or a dollar term, which we need in order to be able to meet reasonably accelerated goals, both in terms of IT in one sense and, I guess, defence science in the other?

**Mr Tonkin**—On defence science, I know that the Chief Defence Scientist is probably looking for an increase of about \$30 million per annum in his area, as a number.

**Mr SINCLAIR**—It is not what he is looking for; what is he going to get from it? Is he looking at these areas that we are trying to identify as being possible gaps within your present program?

**Mr Tonkin**—He has given us his best considered judgment of what he considers

the cost pressures and demands are. The extent to which his judgment is rewarded by allocation of resources depends, firstly, upon the total size of the bucket and the other things that go with it. So, all I can say, you want to know what the cost pressure is, the Chief Defence Scientist has identified cost pressure. In terms of the information systems, I do not genuinely believe we can give you an answer. It is almost pick a number in that area.

**Mr SINCLAIR**—But we are asked to, so why can't you?

**Mr Tonkin**—I am going to defer to the people who run the pink book again. They place a global demand on me.

**Vice Adm. Barrie**—I used the example of the war games area earlier, and I think this is the dilemma. I saw in the United States mega-dollars thrown at war gaming systems through the 1960s, 1970s and 1980s, which did not produce much. Simply throwing funding at solving the problem is not necessarily the way of getting the right answer. There is no substitute for some very hard thinking about what it is you are trying to do. I think the result in today's climate is that war gaming systems are not big soakers up of dollars; they are now soakers up of intellectual capacity and effort. I think that is the sort of dilemma you face now with the information technology business.

**Mr SINCLAIR**—Never mind the war games technology. We come down to this basic system: if you had our service communications up to the standard of the US marines, how much is that going to take us beyond that that we now have? We saw the very, very poor comparison in Tandem Thrust. It just seems to me that that is an area where you can see it. You have got to spend bucks—how many and how many more—and will we ever catch up? My impression was we would not; therefore, we need more money.

**Mr BEVIS**—Do you want to put a satellite in that?

**Mr SINCLAIR**—No, it was in the systems themselves. I think within our reasonable capability. If we go into satellites, that is obviously another phase. I wonder whether you can put a handle on that. War games is another ballpark.

**Mr White**—The broad point is that we need to design a communication system and integrate that with command support and computers and all the rest of it. It is not just a communication system standing alone which works for the ADF, has the right level of inter-operability with allies and so on. We have a significant pattern of investment in that. It will absorb a large share of our investment over the next few years, but we will not be investing in that as fast as would like to—and the risks will get greater. If you ask me what specific number would I put on it, I would say that will depend what priority we give to spending more on C<sup>3</sup>I. It would depend how much additional money we had overall.

I do not think you can say that there is a priority for spending another, say, billion dollars over the next five years on C<sup>3</sup>I or communications, rather than on some other part of the system, because you need to make sure the system as a whole is working. What I can say is that investing in that part of capability is perhaps our highest priority overall; that the pace of investment that we will be able to afford over the next few years will give us some improvement, but will certainly not allow us to take advantage of all that technology could offer us and will provide inhibitions to our own capabilities and our capacity to interact with allies; and that the strategic risk of those deficiencies is, if you like, expanding as capabilities in the region increase.

So there is a significant strategic risk being taken in the fact that we cannot afford to spend more on C<sup>3</sup>I than we do at the moment. That is different from saying there is a particular level that many millions of dollars, if we spent that much, would fix the problem. It is a more complicated issue than that.

**Mr SINCLAIR**—If it is more complicated, I will put it around the other way. How much more money, in your wish list, do you want for defence as a whole when you look back and see what you want to do with it? We are trying to look at the funding; we are trying to get a handle on it. I was trying to pick it out piece by piece. Do it the other way around.

**Mr White**—We are not in the wish list business. We are in the ‘Let’s see if we can build the most cost effective combination of capabilities for the government as we can’ business. When we look at the things that we think would significantly reduce the risks, that would improve the quality of our risk management on strategic problems, the figure I would use is the one I mentioned before—that is, that a lot more things, a significant number of additional things we would like to be able to do, start to become possible under a line at about two per cent real growth in the defence budget.

**Mr SINCLAIR**—So you are looking for two per cent real growth? We can’t just say two per cent; we have got to say, ‘Now what does that mean?’ That is why I was trying to tease you out the other way. So two per cent. Say that we made a recommendation that you get two per cent increase in your defence budget over the next five years, what—

**Mr White**—It is a very serious point, actually. What happens is, as the years go out, that two per cent starts delivering you a bigger and bigger slice of money, and it is what you can do with that money in the years 2005 to 2010, if you like, that really catches my attention.

**Mr SINCLAIR**—To get a handle on it we need to get a bit of a figure on what the difference in outcomes is, say, if you had two per cent over five years or one per cent over five years. Is it possible for you to give us that? You say you have got four scenarios. Let us say two per cent over five years and two per cent over 10 years or one

per cent—

**Mr White**—Two per cent over 10 years gives you \$10 billion extra.

**Mr Tonkin**—That includes the compound.

**CHAIRMAN**—In practical terms, that is only one new tactical fighter fleet.

**Mr Tonkin**—That is right. In practical terms that is what it gives you, on top of what we presently expend in an equipment sense. Our capital equipment budget is \$2.5 billion. We spend another \$860 million on replacement equipment, and we spend another \$830 million on equipment and stores. So our total capital budget is about \$4 billion per annum in terms of capital equipment. A lot of that is consumable stuff, but the \$2.5 billion is major capital equipment. Over a decade, we are spending another \$25 billion. So, in total, \$25 billion is already going in capital equipment over a decade, roughly speaking. If we had another \$10 million over that period not all of that would be available for new capital equipment because of all the other cost drivers we have talked about. If we put AWACs in the air at \$100 million a year there is a billion gone just for that; down to nine.

**Mr SINCLAIR**—But aren't they allowed for? You said they had already been given priority.

**Mr Tonkin**—No. If we have no more money for AWACs we will have to look at how we cut our cloth in terms of whether that has an impact. We would have to look at the operating costs of a new capability like AWACs. We would have to see whether it decreases our opportunity for new acquisition or whether it decreases our opportunity for readiness, activity rates or whatever. It is a matter of a series of choices. Up until the late eighties—this is, perhaps, one of the reasons for this inquiry—we had real growth, and so when we brought a new platform into service that real growth was there and we could accommodate the effect of these things in that real growth line. If you take away that real growth line you significantly compound the problem of how you accommodate these sorts of things.

Moving back to some form of real growth environment at least gets us around the problem of, 'Yes, AWACs is a good thing, but does it cost us frigate operations or battalions? What does it cost us?' Clearly, we would rather increase our global capability than trade one for another. That is a critical component. You get your \$10 million sliced off and sliced off. We probably would have for investment purposes over 10 years proved numbers, \$30 billion. That includes replacement. We could go through a great long list of things.

We published a formal unclassified pink book which gives an idea of what is going out in the future in broad orders of magnitude. Clearly, we do not want to divulge how

much money we are going to allocate to a particular platform because we are trying to win the debate with the supplier on those issues. So there are cost pressures there. We could probably provide you with at least the latest version that we have got.

**Mr SINCLAIR**—That would be good. In fact, you might take my question on notice. For the purpose of our inquiry we are supposed to tell you and the public how much money you need to do your task. We are just trying to get a few numbers on it now. We have got to get a few of the nuts and bolts or it becomes very difficult to make a judgment.

**Mr White**—But that does get back to the point I made at the outset, that is, the nature of our business is not one in which we have a defined task to undertake. We are preparing to perform a task where the nature and limits are not defined. It is profoundly uncertain because we do not know the size and shape of the war, so we do not know what defence forces are adequate to perform our tasks. That is why I say this is all a risk management exercise. The judgment that we have to make, and, I think, the judgment that the subcommittee has to make, is: are those risk management judgments ones that are appropriate to our circumstances?

Let me try to be a bit more specific than we have been so far about what we do with the funds that would be available if, for example, we got something like two per cent of real growth over the next few years. But I want to stress that this is my sense of the way in which our capabilities will most naturally and effectively be expanded. We are talking here about over the next 10 years.

I think the key differences are that we would spend more and faster on a whole range of command, control, communications, intelligence, surveillance and reconnaissance assets. That would probably be our highest priority. We would have a larger proportion of the army at higher readiness levels and would provide it with more airborne fire support and more modern armoured fighting vehicles. We would upgrade the major surface ships and aircraft we have in service at the moment faster, so we have those upgraded capabilities available sooner. As it stands, the sorts of programs that are envisaged would see those upgrade programs taking place over something like 10 years. It would be strategically advantageous to have that done faster.

Most importantly to my mind, we would put ourselves in a position to be able to invest earlier in the new capabilities, particularly new aircraft, and acquire better quality capabilities and bigger numbers of those capabilities than we would be able to at present. Looking into the future from where we stand at the moment, we see a series of upgrade programs with major platforms which are going to take a long time to afford and we see a series of challenges in the major new equipment, particularly replacement to aircraft, which at the moment is very hard to see. The expenditure on new aircraft in the next decade is very hard to accommodate. If you ask me what would two per cent real growth give us, it would give us a way of fighting our way through that problem.



**Mr SINCLAIR**—The one thing that strikes me about that is that you are saying that, if you have got that increase, you would not allocate any of it to personnel—not for training, et cetera.

**Mr White**—No, because when I talk about capability, I do mean that in the broad. I do not just mean the actual capital investment required. A significant amount of that is capital investment, but I do mean capability in the broad. For example, in the case of the army getting the high levels of readiness would involve a lot of expenditure on personnel and operating costs. But there is another point there.

One of the things that is not perhaps accommodated in the set of priorities I gave you is that fact that our costs per head of personnel are increasing like everybody else's and in our case in two ways. First of all because our heads are getting better so we are having to pay them more. We need to do that. We need armed forces that are full of very bright people because they are doing very complicated tasks. So the nature of the people we employ is changing and also we have to recognise the need for meeting ordinary cost increases in employing labour like everybody else.

If we get some additional money—and this will happen with regard to the funds that come available from the DRP process as well—there will be a debate within the defence organisation about how much of that should go to capital costs, how much should go to operating costs and how much should go to personnel. That is not a debate—if I can put it that way—because the capital side of the house always wins.

**Mr Tonkin**—To come back to some indicative numbers—just to pick up Mr Sinclair's concern—let us take that \$10 billion and two per cent for a minute. One billion dollars went to Dr Southcott's AWACs aircraft. If we assumed that labour salaries rise at four per cent per annum and we are presently getting subsidised 1½ per cent—let us assume this went up at two per cent—that would be \$4 billion of that \$10 billion consumed by rising labour costs, because we presently spend about \$4 billion of our budget on labour.

If we take the fact that our equipment platforms are ageing and the demands for making up shortfalls of equipment, spares and stuff was \$100 million extra a year spread over a decade—that is \$100 million next year, that \$100 million continues and another \$100 million—that is another \$5 million. I already find I have spent my \$10 million extra on AWACs, salaries and operating costs without one cent going to new capability.

**Mr SINCLAIR**—But that presumes that you have no capacity at all within your present budget to absorb—not the AWACs, you explained that—your operating costs.

**Mr Tonkin**—The way you affect labour costs is that you have less labour. We would argue that a defence force of between 50,000 and 52,000 is about as low as you would credibly want to go. The departmental work force would be between 12,000 and

14,000. That assumes that we have market tested and contracted out to the maximum extent possible.

To give you some idea of the magnitude of what we are talking about, we have probably the most successful market testing program in the whole of the Commonwealth government. We have market tested on an average 1,000 positions over each of the last four years. We are market testing over the next four years 4,000 a year. In order to do that requires an extraordinary scaling up of our activity.

I stood up in front of one of our programs the other day and said, 'You presently have a staff of 7,770. By the time we finish the defence reform program with the rationalisation and every position market tested, assuming they all go out, there will be 156 of you left.' At some point, you run out of ability to cut the numbers. So I factored that in and I have still got \$4 billion labour costs.

I assume that the cost of maintenance of equipment is going to rise over time. It has been. It seems logical that it will. I said, 'Let's be tough and knock half of that off.' Maybe I will come down to saying there is \$2 billion left for new capability over the decade. That is standing aside increasing activity rates and all sorts of other things. So you can see why even two per cent becomes a modest request.

**Mr BEVIS**—Mr Tonkin basically made the point that I was going to pursue. As Mr White went through that list, which I think is very useful to have done, you could see the \$10 billion from the two per cent over 10 years evaporate very rapidly. The point Mr White concluded on was the prospect of some investment of new aircraft earlier and maybe better capability. That was really the point I was going to query because I could not see how it was going to do that. I think Mr Tonkin has just explained how it cannot. I would have thought you would need an additional, and maybe special for the purpose, provision of between \$6 and \$8 billion to undertake that which could clearly not be accommodated within the \$10 billion that the two per cent would deliver.

**Vice Adm. Barrie**—I would agree that is one approach to solving that problem. You would just have to caveat it by saying, 'I don't think the way ahead is clear.' I think the cost pressures, even in the United States, of those sorts of decisions are causing people to have a bit of indigestion about the possibilities. Certainly in the past particular capital acquisitions have been progressed in that way.

There are just a couple of things worth adding. Our judgment from the military side is that the minimum level for the Australian defence force in uniform—the full-time component, that is—is somewhere between 50,000 and 52,000. That does mean that we need to concentrate carefully on what tasks and jobs it is going to do. There is no doubt that our focus today is in essence that the majority of the force ought to be at the combat end of the defence business. Therefore, it is essential that we seek opportunities for engaging our business and our community in the defence function to achieve all the other

things that we need. That is a special challenge, of course. The committee will know that we are doing some work on the industry policy aspects of that as we speak.

**CHAIRMAN**—In this general area, I would like to go back to the question I asked about new capabilities being required in the region. One of the points that concerns me is the increase in missile technology. We saw the introduction of the scuds into the Gulf theatre and the effect that that had. It is almost 10 years now—eight years—since all that happened. In that time we have seen a proliferation of theatre ballistic missiles, I presume a diminution in their costs, certainly an increase in their accuracy and the general increased utility of them.

Defence against those things is extraordinarily difficult and extraordinarily complex—the detection, the launch phase, the cruise and final interception. That is something that has got the Americans at full stretch. I do not see that this region is going to be immune from them. What forward planning or contingency planning have you got in place for the introduction of theatre ballistic missiles?

**Mr White**—We keep a very close eye on the theatre ballistic missile problem and the rate of proliferation. We share your sense that this is a problem that needs a lot of attention and that we should not be complacent about it. We do two or three things to keep ourselves in touch with that business.

We have, of course, very close cooperation with the United States in some significant elements of theatre missile defence through our cooperation in the infra-red early warning of missile launches, and that is something we will sustain, even past the closure of Nurrungar in a few years time. We have had close cooperation with the US in some aspects of missile defence technology, which have been undertaken by DSTO for some years now. By doing that, we not only make a contribution to what you might call a broader allied effort on this issue but also keep ourselves well attuned to what is going on. Of course, we have a keen interest in a whole lot of the other what you might call ancillary or component capabilities which make up a theatre missile defence system—radars, command control systems and the like.

Our judgment is that, at the moment, the potential ballistic missile threat to Australia is not great enough to warrant the very significant investments that would be involved in a theatre ballistic missile defence system. That is a judgment that we keep under review, and it is possible to envisage circumstances in which, sometime in the next 10 years or so, that judgment might need to be revised and we might need to invest in such systems. Were that to occur, it would have very substantial cost implications that could not be accommodated within our present defence budget without a very serious distortion of the rest of our force structure.

I cannot tell you how much that would cost because, as you have mentioned, the systems themselves are evolving in a very complex way in the US and, to some extent,

elsewhere. For example, the size and shape of the sorts of systems that might be available in the next decade are not yet too clear, but it is pretty clear that none of them is going to be cheap. That would be a major new strategic investment for us. I could not give you a probability that we will need to make that investment. I do not regard it as very high, but I do think it is a distinct possibility that our planning needs to take into account.

**CHAIRMAN**—Thank you.

**Mr SINCLAIR**—I suppose the other thing we have to worry about is that, within the money you are now spending, there are criticisms of what you are doing and how you are doing it. The DER was a major program. There has been an audit released, to which some publicity was given the other day, about defence stores and their adequacy and whether or not they were current and properly held. What processes have you in place to try to make sure that, within the funds that are now available, you are spending them as efficiently and adequately as you can? Obviously, you have a number of set areas in personnel and payment for equipment but, every time there is another report that suggests there are less than adequate prudential arrangements in place within the department, the quest for more money is more difficult to accept.

**Vice Adm. Barrie**—I would have to say that that is a core issue in the defence reform program. I could not for a moment defend some of those inefficiencies. I think that is not acceptable in an organisation that should be value for money, and something needs to be done about it. I am sure there are some that we probably do not even know about just yet.

In essence, this is why the idea of the culture change we need inside the organisation is so fundamental. If it is the people who are actually managing those systems who do not see for themselves the need to get efficiency out of it—and this is always a problem for senior management: trying to think of all the things that are going wrong inside the 75,000-strong organisation—then we will never become efficient. What we have to do is change the culture of the people inside the organisation and have them ask themselves the question: is this a value for money decision; does this make sense and, if not, what am I going to do to change it?

In terms of the new arrangements for logistics, in particular, I think it is a challenge for the Commander Support Australia. Firstly, banging together, if you like, logistic systems that came out of three services and trying to break down the barriers that are established by 'if it was not invented here it is no good' sort of thing. They have to leverage off each other's experience and knowledge to get a system together which really works. That, I think, is going to take us a little time, but we have certainly started that particular plot.

The second element of that is to go through the market testing issue. Defence is not the only organisation in Australia that does logistics in the same way we do; that is,

warehousing distribution, maintenance of inventory—those sorts of things. So it is also leveraging off what is available inside Australian industry and business that we ought to get together and learn so much from.

Again, if the 50,000 to 52,000 people all end up being warriors inside the Australian defence organisation, it might well be that one of those outcomes is that the holding of inventory and the management of the distribution system is not something that we would do in-house. There is a long way to go. I would be the first to say that.

**Mr Tonkin**—Just on a cultural point, what we are trying to do is shift the organisation, its use of resources and management, from a notion of ownership of those resources at lower levels to a stewardship of it, so that they understand that they are part of some collective activity and they are working towards a common outcome. You asked about the mechanisms for picking up on these sorts of things.

We have a committee called the Defence Audit and Policy Evaluation Committee, which I chair. That essentially is the central focus of our corporate government process. We have to learn better lessons from the outcomes of these audit reports more efficiently than we have in the past. We should not have them sit on shelves as a series of interesting books but focus on how we therefore actively re-mediate and place the accountability on people to produce the adjusted outcomes. We do evaluations and we should learn through targeting those evaluations more efficiently so that it is not just a series of recommendations that people nod at but they do something about it—they come back and report on their implementation.

This is to make the organisation progressively more of a learning and adaptive place. Take the fact that most audit reports are an opportunity—they are a valuable contribution to what we do—to do things better rather than seeing them as an attack which you have to rebut all the time. Some of the things that come in audit reports we already know about because we have told them, et cetera. But that is the process we are trying to follow. We need to be much more flexible in the way we respond to these sorts of things. Hopefully that will help us to get better value for money.

**Dr SOUTHCOTT**—The Auditor-General's report on JORN mentioned the problem that all government departments have in that they have an ethos where they try and spend the money by 30 June each year. The Department of Defence agreed that that needed to be addressed. Has that been addressed as part of the defence reform program?

**Mr Tonkin**—We actually addressed it before that audit report, before the defence efficiency review, and we are moving to improve it further. We have a current arrangement with the Department of Finance that we can carry over from one year to the next a total of \$130 million a year—\$100 million of which is in major capital equipment projects and \$30 million in any other expenditure other than running costs, running costs being salaries and administrative expenses. We are now seeking to get a slightly larger

number and more generally applied.

That \$100 million on major capital is to overcome the problem that we only want to pay for major capital equipment on earned value. We write into our contracts on major capital equipment early and late payment clauses. If you are making payments on submarines, which might be \$50 to \$60 million a month, you can for a minimal cost move those payments either side of that financial boundary line to give us some sort of flexibility. It is certainly correct that we want to move away from a focus that says, 'Every dollar must be spent. It does not matter how you spend it—paint the rocks white, buy the computer boxes and have the equipment arrive later'—all the techniques across government which go on. We want to avoid that, spend money where we can and, if we cannot, seek to roll it over.

We also have a general understanding that savings coming out of the defence reform program should not have to be spent when they arrive but perhaps we can roll them into the future year, so that we could move it across the boundaries. Although consistent with the fact that parliament appropriates funds on an annual basis, we must account for funds on an annual basis. There is always going to be a significant degree of rigidity in the way funds are appropriated. We are not a private company; we are accountable to parliament and we must perform in that light. But with some sort of visible boundary we think we can improve the process.

**Dr SOUTHCOTT**—Have you given any consideration to using accrual accounting within the department?

**Mr Tonkin**—Yes, absolutely. The whole of government is moving towards accrual accounting by 1999-2000. We already have accrual accounts at the portfolio level. If you look in our annual report printed this week, you will find accrual accounts at the portfolio level. We will progressively move that through the organisation and make ourselves full accrual accounting. That will substantially assist our ability in areas like stock holdings and land and building assets—those assets which are essentially tradeable in nature. If we are sitting on a very substantial amount of assets in stores, some of which is growing old and being bought, sitting on a shelf and sold off as surplus, accrual accounting gives you a more focused approach to be able to target that area of expenditure and drive that sort of thing down.

It comes back to Vice Admiral Barrie's point that there is more we can learn from our commercial colleagues about how we do some of these things. We are not an island. Too often in the past perhaps we could be accused of saying that we are separate and different. Big slices of what we do are not and we ought to learn that lesson.

**Mr SINCLAIR**—The other component of defence decision taking which is difficult—and you mentioned that you had set up this committee to audit the auditors—is that for so long there have been so many committees. I know part of the DRP has been to

eliminate some of those committees. But one which is quite critical is that which determines which capital equipment you are going to buy. Are you satisfied that you have in place the most effective systems to ensure that that capital component of your program is being spent as well it can be on the acquisition? You mentioned a possible additional two submarines, for example. How are you going about re-appraising what you have and where we are? You had a new helicopter acquisition for the navy about which some of us feel not completely satisfied, for example.

**Mr White**—There are two components to those decisions, which we do very deliberately keep separate. One is the decision as to what sorts of capabilities we should be acquiring; the second is the decision on the actual source from which equipment will be purchased. Both of those arrangements have been significantly changed in light of the DRP. I can speak on the first of them where we have undertaken some very substantial reforms in light of what we have recommended in the defence efficiency review and a lot of work we have done ourselves, which has been to some extent reflected in the DER, about the way these decisions are made.

We had—by ‘we’ I mean the people in the organisation, civil and military, who have been involved in the process—a number of reservations about the way our old processes ran. I guess in a nutshell the way I would put it is that they focus too much on equipment rather than on capability and they focus too much on specific decisions about whether we buy this type of ship or that type of ship, rather than what sorts of priorities we shall give to investment in surface ships within our overall investment budget and so on.

The third difficulty that I had with the previous process was that it was insufficiently differentiated between very big decisions and just big decisions. None of our major capital equipment decisions are small; they are all at least \$20 million. But we tended to use the same process to make a decision on a \$20 million project as we did on a \$2 billion project. That did not seem a very smart way of using our time and resources.

The fourth problem I had with the old process was that there were, frankly, too many people involved in it which did not provide a high enough sense of personal responsibility for those who were involved. There were so many people around the table that it was hard to make them all feel that they were personally responsible for decisions being taken.

In light of those things, we have abolished two committees and replaced them with one. The committees that were abolished are the concepts and capabilities committee and the force structure programming and priorities committee. Each had normal memberships of about 12 and usually there were about 40 people in the room when they met. They have both been replaced by the Defence Capability Committee which consists of three people—Vice Admiral Barrie, Gary Jones, the head of acquisition, and me. That is attended routinely by the service chiefs at three-star level when there are issues affecting

their service. By the nature of the thing, invariably we have one or two and sometimes three of the service chiefs at the table. We also have a representative from the Department of Finance.

This is a very much smaller, much tighter group that looks at much broader issues. It attempts to make sure that we are getting the big decisions right, then we are delegating down to lower level committees and other processes—not all committee processes—some of the very important decisions, but nonetheless lesser decisions, that need to be taken about the sorts of capability we acquire.

I am not satisfied that this is a perfect process, but I am very satisfied that it is a significantly better process than the one we had before. We have been running it now since May, which was the time of the first meeting of this new committee. Its maiden flight was carrying cargo, if I can put it that way. We have started to use it this year and have actually used it to process the recommendations that are going forward to government for capital investment this year.

So far I am happy, and I think the others who participated in the process are happy, that it is producing better quality decisions, with better focus, in a better strategic context than we have had before. But at the end of this financial year, when we have gone through the budget cycle we are presently undertaking, we will stop and spend a day or two taking the thing apart and seeing how well it has run on its first flight, and I am sure there will be more changes to come after that. We do not regard this revolution as being at an end. We are being a bit Trotskyite on this one.

**Mr SINCLAIR**—What about the user? You are relying on the Defence Chief to ensure that the guy who is flying whatever the particular equipment might be at this time is—

**Mr White**—There are lots of ways that the user's view on these issues is brought into play. One is that the people who work for Chris and me within the headquarters who develop ideas and prepare proposals include, of course, a large number of service men and women with experience and very strong links, and issues are prepared and ideas are developed in very close consultation with the services. But I should say that it is a very significant feature of our processes that the service chief himself is sitting there at the table with a very strong sense of what he thinks his service needs in order to do the job.

Service chiefs, being what they are, have a very significant capacity to express that view very forcefully. We are finding that we are getting, if I can put it this way, tougher, more vigorous debates and more content-filled debates on what the real capability requirements of the ADF are in this structure than we did when we had a bigger committee with more people and there was more, if you like, committee politics going on than actual getting to grips with the issues.



Again, I would not say that if you asked the service chiefs they would say they are perfectly satisfied with the way in which any particular aspect of the process contributes to the committee's outcomes. Chris and I are not perfectly satisfied—we are trying to build something new and it is different and it is taking some time to shake down—but I am satisfied that already we are getting a better representation than we used to.

**Mr GEORGIU**—What does Defence use to work out real expenditure? Do you have a defence deflator?

**Mr White**—Yes.

**Mr Tonkin**—It is a range of deflators that the Department of Finance applies to adjust our budget in real terms. The best way to address it would be to look at the annual portfolio budget measures statement. I have one here, but in the first 20-odd pages of that are a couple of pages which actually show how the real growth calculations are calculated, what are the ons and offs, et cetera.

**Mr GEORGIU**—Fine. The second thing I want to have a go at is defence project management. It has had a fair towelling on a significant number of projects—JORN being the latest. Is Defence looking at that issue seriously?

**Vice Adm. Barrie**—We always look at that issue seriously. I am not qualified to give you the chapter and verse detail of project management issues, but I think there are a couple of points worth making. One is that in most cases we are managing unique projects. This is not building a bridge or a large building or anything like that. This is something that is kind of unique.

The second one is that, particularly for the high visibility projects, they are exceedingly complex. Whenever we are criticised, we look to our own thing to see if we can do better. That has got to be part of an ongoing thing that we do. But it is fundamental to the core skills and capabilities of the people in the military side of project management.

We have seen over the last 12 years or so, a substantial investment in the people end of project management. That is to say, when we recognised in the Collins program at \$5.2 billion—the largest single project ever undertaken in this country—that we needed significant skills, we had to invest in those in a number of ways, including getting our people special education and training, and slowing down the posting cycles to make sure that people spent a long time inside project management to actually achieve those sorts of efficiencies.

**Mr Tonkin**—There is a raft of recommendations in the reform program—recommendations 19 through to 23—which actually directly target the way in which the acquisition organisation works, focusing it more on a technical focus for the grouping of

projects. We are more actively looking at the way in which project management can be better done, how we scope it, et cetera, how we control it, how we write the contracts, to give us flexibility to protect the taxpayer and so on. All those things are actively under way. We very closely, obviously, follow the activities of parliamentary committees on things like JORN, et cetera, and the lessons that we can learn out of that.

**CHAIRMAN**—That is a very important question of Mr Georgiou's, because one thing is to give you more money and the other thing is to make sure that you spend it more efficiently. The contracting process is a long way from being perfect. The way we write those contracts changes all the time. We lose a huge amount of money in that. I think the Collins project is a classic—you say it was a \$5.2 billion program. Probably, if it had been written efficiently, it might have been \$3.2 billion. Who knows? I see in one of the parliamentary reports that the Commonwealth has gone beyond that \$5.2 billion and given \$500 million in indemnities to the manufacturer or the prime contractor. What guarantees have we got that this looseness is not going to occur in the future?

**Mr Tonkin**—I do not think any of us here are specialists in that area. I think we probably jointly contest whether the word 'looseness' is appropriately applied. Defence is the largest contractor in the government sector. I would argue that the track record, while you can pick holes in some things, is not a track record of inexpertness over time and that, generally speaking, the value for money is achieved.

We acknowledge fully that we can do better in some of these areas and we get attacked on the JORN project. The JORN project was a cash limited project. In terms of the Commonwealth as a whole, it was a significant problem. In terms of the defence budget, we will get the capability at the price we contracted to pay. That raises a whole range of other things and, again, I am out of my depth instantly.

**CHAIRMAN**—We will get it three years late or four years late, will we not?

**Mr Tonkin**—You have the choice, when you get into certain equipment, that if you want to buy old technology or second-rate equipment you can get it faster and sooner. If you want to be on the cutting edge of technology, you take risks.

**CHAIRMAN**—Hang on. We wrote a contract for a capability here to be delivered for a certain price at a certain time. Now we are about four years late on it, and you are telling me we are getting new equipment. That was not your idea when you wrote the contract.

**Mr Tonkin**—What we were after was technology at the cutting edge. In fact, some of it is—you are really taking the punt that you can invent bits of it as you go along so that by the time it arrives, it is state of the art when it arrives. That is a risky business. We can either choose to undertake those sorts of activities in Australia or always rely on buying what someone else has invented elsewhere. That is a choice that governments

could make over time. There is a risk to take and a cost to pay sometimes by going down that sort of a pathway. That is a judgment call for governments and departments to make.

**Mr White**—I think that is the key point, at least from where I sit. There is a strategic element in the project management issues. Of course, as you mentioned and as my colleagues have mentioned, we certainly would not claim that defence project management is perfect, and there are some specific cases where it has been significantly deficient. But, overall, particularly in the big high technology projects which are naturally the ones that attract attention, we are taking extremely complex investments which have very significant technical risk and a degree of managerial risk because they are very complicated projects, and not a lot of people in Australia manage projects like this.

It has been the view of successive governments, and I think a correct view, that it is worth taking those project management risks in order to get the good capabilities we are after. We could have bought, for example, submarines at lower technical risk, but we would have ended up with a very ordinary common or garden submarine. What we actually would have ended up with was a submarine just like the ones that other people in the region are buying, and that is specifically what we did not want. We could not have bought an OTHR that would have done anything like what we want from anyone, because it is a different kind of capability uniquely focused on our strategic circumstances.

I would have to say, from where I sit looking at OTHR, that I am sorry we are not going to get it sooner. I think that the risks that are reflected in the contract and the way the project has turned out have been more than justified by the kind of capability we are going to get. It is a very important capability to us.

**CHAIRMAN**—If we accept the validity of your argument there about the difficulties technically and the groundbreaking—

**Mr GEORGIU**—I step a bit to the side on the technical difficulties.

**CHAIRMAN**—My colleague has just reminded me to remind people of the F111 decision. I am glad you raised that because that was an example of a political decision overriding technical advice from the department.

**Mr White**—But what a wonderful decision it was.

**CHAIRMAN**—Thank the politicians for that, not the Public Service.

**Mr White**—It was not without some evident risk though. Particularly about half way through it looked a bit spotty. It was not a model of project management.

**CHAIRMAN**—You are developing highly complex contracts here. Surely that puts on Defence the requirement to get a specialist management team rather than rotating

people in for two or three years so that it is buggins turn to go down to Melbourne or Adelaide—depending where the ships are being built—and sit there.

**Mr Tonkin**—We fully agree.

**CHAIRMAN**—While the efficiency review recommended changes there it did not set up a dedicated project management team of people whose whole career would be looking after major projects.

**Mr Tonkin**—What it does is it says that we need to have specialist military personnel in that area who will spend the bulk of their career in that area. You do not certainly want them always to be there, but you would like them to also go out and actually see the end-user effect. To come back to Mr Sinclair's point that it is all very well to have people shoving it in the pipeline: to see what it does on the ground is pretty educational before they come back higher up the tree to do it. We want project managers sitting there for longer.

The reform program talks about reducing the military proportion in acquisition from 30 per cent to 10 per cent. We do not think that 10 per cent is viable and the position of the minister is that we are going to go at this progressively. We will take it from 30 per cent to 20 per cent or 25 per cent, see how it goes, bring it down at each level, think, look, understand what that means and move progressively to that point. The aim of that 30 per cent to 10 per cent was to try and produce exactly what you are talking about: greater stability and greater specialism in the area of acquisition. We have a lot of technically good acquisition specialists—noting that an acquisition team is not just a contract group, it is a whole array of technical expertise right across the spectrum. So the reform program is moving towards that as well as making use of external expertise.

**Mr GEORGIU**—One of my concerns about inefficiency is not just a waste of money, but it is a loss of capacity at a particular point in time. If we are really talking about risk management in Defence, then a four year delay minimum on JORN actually does impact. I am not getting preoccupied with JORN, it just exemplifies a situation. It does impact on, presumably, all the intelligence stuff that we have been speaking about.

**Mr White**—That is absolutely right. To be honest, from my point of view—what you might call a strategic point of view—my concern about our project management processes, or our acquisition processes more broadly, is not that sometimes we take risky decisions and some of those risks come home to roost on us. It is that all of our acquisition processes take too long because there is a real strategic cost in delay in introducing capabilities and because that increases the risk that, on the day you want it, you are not going to have it. For that reason, from my perspective, the urgent thing in our acquisition process is actually to get the processes through faster. Some of that is project management but some of it has to do with industry capability and that sort of thing.

But there I absolutely agree with you. It is delays of introduction in capability which can be very damaging strategically. So can wild cost blow-outs. But I have to say wild cost blow-outs are things that our project management process has to a significant degree squeezed out. Sometimes we get things wrong, but it is not as bad as it used to be.

**Mr GEORGIU**—With respect to Mr Tonkin, a huge hit for the Commonwealth over JORN is not defended by saying Defence did not pay for it.

**Mr Tonkin**—No, nor did I say that.

**CHAIRMAN**—I think that was one of the implications that could be drawn from it.

**Mr Tonkin**—It was not my intention.

**Mr BEVIS**—Can I ask a question on the issue of waste? There was a recent report—I think it was the Auditor-General's report—about stockholdings and the headlines about the \$1 billion. I have not had the opportunity to go through the detail of that report yet but I do recall reading, in the executive summary or the PR stuff that was put out at that time, comment about Defence having a mentality of 'just in case,' the implication being that a business practice of 'just in time' would be more suitable. I wonder what your thoughts are on that because it goes to how much money is allocated, obviously. I actually would have thought there is a whole range of things that we do want to keep just in case and I was a little concerned at that much of it which I had the opportunity to read.

**Vice Adm. Barrie**—I think that is part of the complexity of the sort of logistic support systems we need to have in place. 'Just in case' to me raises the picture of ammunition, missiles—those sorts of things which are unique to defence. They are essential to a delivery of our output. They are the sorts of things you simply would not want to do without, what sensible judgments might be about what you build in country, what you acquire from overseas and all those sorts of things. On the other hand 'just in case' does not apply to cornflakes packets in northern Australia. That is 'just in time'. There is absolutely no reason why we should hold much inventory of that when it is widely available. It is, I guess, finding out just where you do it this way versus that way that is the real challenge.

Again, I think there is a lot of work to be done to reconcile the standard of practice in our warehousing and in our inventory holdings versus delivery of systems from source. Indeed, yesterday I was having discussions with a couple of people who are really experts in these areas. When they tell you some of the sorts of things they are doing, as they say, to manage the inventory and the distribution system for our customers, I think there is an enormous opportunity to do a lot of work over the next couple of years. But it is balanced—it is not all of one or all of the other. You need to understand 'just in case' soaks up our dollars. We need to have a very good basis for making those judgments.

There are a lot of efficiencies to be gained under the 'just in time' replacements.

**Mr BEVIS**—The full report may convey a different impression, but I must say that that much of it that I read, which I think was the press release that was put out at the time and the executive summary, led you to a conclusion that it was all wrong.

**CHAIRMAN**—We are getting into a debate here as to whether we try and tie this up in the next ten minutes and finish by 12.30 or whether we break at 12.30 and come back at 1.30. I think it might be best if we tried to sprint through in 10 minutes and wind it up, if it is the feeling of the committee that we are getting pretty close to—

**Mr White**—It would certainly help us.

**Mr SINCLAIR**—I think what we might have to do is have a look where we are as a result of today. The problem we have is that we have had a few indications of expectation of funds and we have had a few bids of definite programs. Trying to relate that to our terms of reference, it seems to be that there are still a few gaps.

**Vice Adm. Barrie**—It might be worth saying, Mr Chairman, if there are specific questions for which you want those sorts of answers—

**Mr SINCLAIR**—We might be able to follow them through in correspondence. That would be a good idea.

**CHAIRMAN**—I have a couple of quick points I would like an answer to. If, in your submission, you say that if we get no percentage of real growth by the end of the decade, then we are going to have a loss of capabilities, what are the ones you would recommend being cut first of all? What advice would you be tending government?

**Mr White**—I would rather not push very specifically what advice I would give to government, but I would be happy to make some broader comments. The first thing is that we absolutely have to—

**Mr SINCLAIR**—You mean there is something different between what you tell government and what you are saying to us?

**Mr White**—No, Mr Sinclair. You will recall, no doubt, that ministers get fussy if they hear the advice first in public media.

**CHAIRMAN**—I will put it to you in a hypothetical sense. What would pass by your mind?

**Mr White**—The first thing we need to do—and it is a continuation of some of the things we have been talking about all morning—is to keep focussing our investment, both

in equipment and in all other aspects of capability, on the sharp end. In broad terms, that is something that, at various points, starts to have capability costs.

Vice Admiral Barrie was talking, for example, about the ways in which we can increase the extent to which we rely on the commercial sector to provide services to the ADF. As you go down that track, you start getting closer and closer to the point where things are mission critical: where the high explosive is actually being delivered. That does carry some risks because, in the end, with the best will in the world, commercial organisations will not deliver services with the same absolute degree of reliability that service organisations do. I believe the organisation is going to need to accept some of those risks, but the further down the track you go, the more of those risks you will have to take. It seems to me that that will not begin to absorb the sorts of issues, the sorts of deficiencies, that we are concerned about.

I think the government will be faced with a very basic decision as to the degree of priority it wants to give to those air and maritime capabilities—which are, in some ways, most relevant to what you might call the fundamental defence of Australia—and the sorts of land capabilities which are most useful in a whole range of other contingencies and are the ones that are familiar from all sorts of things that crop up—from evacuations through to problems in the South Pacific and operations like Rwanda and Somalia and so on.

The biggest choice that the government faces is between the extent to which it invests in our maritime forces and land forces. I would not say that the government would take a decision to make the cuts in land forces—I would not recommend that it did that—but it would certainly, I think, have to squeeze very hard on our land capabilities in order to maintain that fundamental maritime defence which is at the core of our national security, and to do that would run very significant strategic risks.

**CHAIRMAN**—I want to move quickly on to funding in relation to personnel issues. We have had very high resignation rates in recent years, even though the economy is a bit depressed, and there is a cost to the department in resignation rates beyond a certain level. That cost is in increased training for replacements, a loss of corporate memory and experience and we come back to this business of readiness. It has a great impact on readiness.

I would agree that once you get past a certain level of readiness, the costs become quite disproportionate. It is important, I think, for some air units, some naval units and things like 3 Brigade in the ADF to have high standards of readiness. For the rest of it you can accept a lower level. But if you have a lower level, then your resignation rates go up because people do not do the things that they want to do when they join the services. Furthermore, you cannot develop the capabilities of your platforms and develop tactics and doctrine if you are not using them in peacetime. Mr White raised the point that interoperability with the US also suffers. There is an equation here that we have got to balance and it seems to me that we are probably a bit on the low side at the present time on readiness. Would you agree with that?

**Vice Adm. Barrie**—I think it is poised. I think it is about the right size, but that does not mean to say that it all works perfectly. For me, the ultimate demonstration of the readiness equation is just how professional the force looks doing its thing. It is, or will become, an unprofessional force if does not have enough emphasis on readiness. I do not think we have that problem. I could be wrong. I am pretty sure I am not. I think that when the ADF does its thing, it does it very professionally. That is something which I think flows from the readiness equation.

There are times when people think we are not doing enough and there are occasions on which they think we could do this just a little better. It goes back to the essential ingredient—let me use the one I know—how many days do you spend at sea? We think 120. With 125 or 130 days, you can do just a little bit more. If it is up towards 200, you can do a whole bunch better. What we are absolutely certain about is it is not under 120. There are navies, for example, that operate at 100 or 90 days and they are not as professional as we are. I do not think it is on the low side, but there is not a lot of margin for error in it. It does go back to that essential business of \$1 for this is not \$1 for that.

If our strategic circumstances were to change, we would have to, at quite short notice potentially, change that equation. If there were a set of circumstances which said that we needed to hold our forces at higher levels of readiness notice, that is going to be quite costly. An example that I can think of is taking a battalion from 14-days readiness notice to seven-days readiness notice costs you about \$20 million. It is as simple as that. So they are quite significant decisions. I characterise it as being on the fence. That is just something you have got to—

**CHAIRMAN**—I do not want to focus too much on readiness because it is only one part of these personnel questions. I see Defence brought back recently a flying retention scheme or something like that. Whatever the wisdom of that move might be, there is certainly a tendency to remunerate personnel with an eye to retaining them by trying to get away from a rank for pay structure. What are the implications of that on your budget in the years ahead?

**Vice Adm. Barrie**—I think there are very significant implications. One of the problems the service chiefs have right now is that the only lever they can use to solve the problem of managing an open-ended personnel system is recruiting. There are very few other things they can actually do to solve problems as they occur because frankly, all members of the ADF can serve until age 55 and it is the member's decision about the time of departure. There is no contractual obligation. There is, in a sense, no way in which particular levers can be pulled to influence the work force other than the recruiting base and then applying the sort of bandaid measures you just eluded to.

We are looking at the moment at different ways of constructing a system which would produce the outcomes we want. It is very interesting, for example, that the US



Marine Corps personnel management model is based on something like a 75 per cent turnover of the force in four years. So they have very different methods of managing the force inside those sorts of parameters. It is a very different approach than the one we are currently using and I think we do need to explore all those opportunities if we are going to solve that problem.

That has become even more critical when you think about the 50,000 to 52,000 people and the sorts of skills and technologies they are going to have to use in meeting the defence challenge. They will become very highly educated, very highly skilled people. They will be very attractive to outside industry, I have no doubt; nonetheless, we will have no alternative but to invest in it.

**CHAIRMAN**—Are there any final questions?

**Mr SINCLAIR**—In the Minister for Defence's statement to parliament on 30 September, he said that the decline in the defence budget and the percentage of Commonwealth outlays have made it:

. . . enormously difficult for Defence to maintain high levels of operational and training activities, and to buy and modernise equipment.

Could you identify any areas where that is already starting to bite? He said that, because of the declining percentage, there are already areas where it was very difficult to maintain operational and training activities. You have identified in general form and said you think it is just about right.

**Vice Adm. Barrie**—No, I did not say it was just about right. I said it was on the fence at the minimum acceptable level in today's circumstances.

**Mr SINCLAIR**—Right, I accept the redefinition. What I am after is finding out whether it has fallen over and, if so, where.

**Vice Adm. Barrie**—Occasionally, we see things that happen on exercises and other things that we know can be done better. From where I come, nothing quite convinces you that the system works well until you fire the round and it actually goes whack on the target. You can have all sorts of other systems to persuade you that the system is a good one, but until you actually prove it by doing it you never really know that answer. Through the exercise program you continually learn that there is more that can be done. I think one area that we have to keep under review all the time is the degree to which we fire weapons systems in a proper scenario to prove that they work, that the people and systems are capable of doing the job, those sorts of things. Occasionally we find that things do not quite work as we expected. That is part of an ongoing program.

Other areas of performance: every now and then we have accidents and other

things that go wrong in the normal course of doing defence's business. They all need to be explored to find out the why and wherefore because judgments need to be made about readiness levels, professionalism and training and education. They are the sorts of things you have to keep under review. I would like to see us do more of the systems proving, but that is quite expensive.

**Mr SINCLAIR**—I will leave it at that.

**CHAIRMAN**—I would like to thank you for your attendance today. Almost certainly, we will give you some written questions to try to avoid another hearing. You will be sent a copy of the transcript of your evidence to which you can make corrections of grammar and fact. Thank you for coming.

Resolved (on motion by Mr Sinclair):

That the subcommittee authorises publication of the evidence given before it at the public hearing today.

**Subcommittee adjourned at 12.31 p.m.**