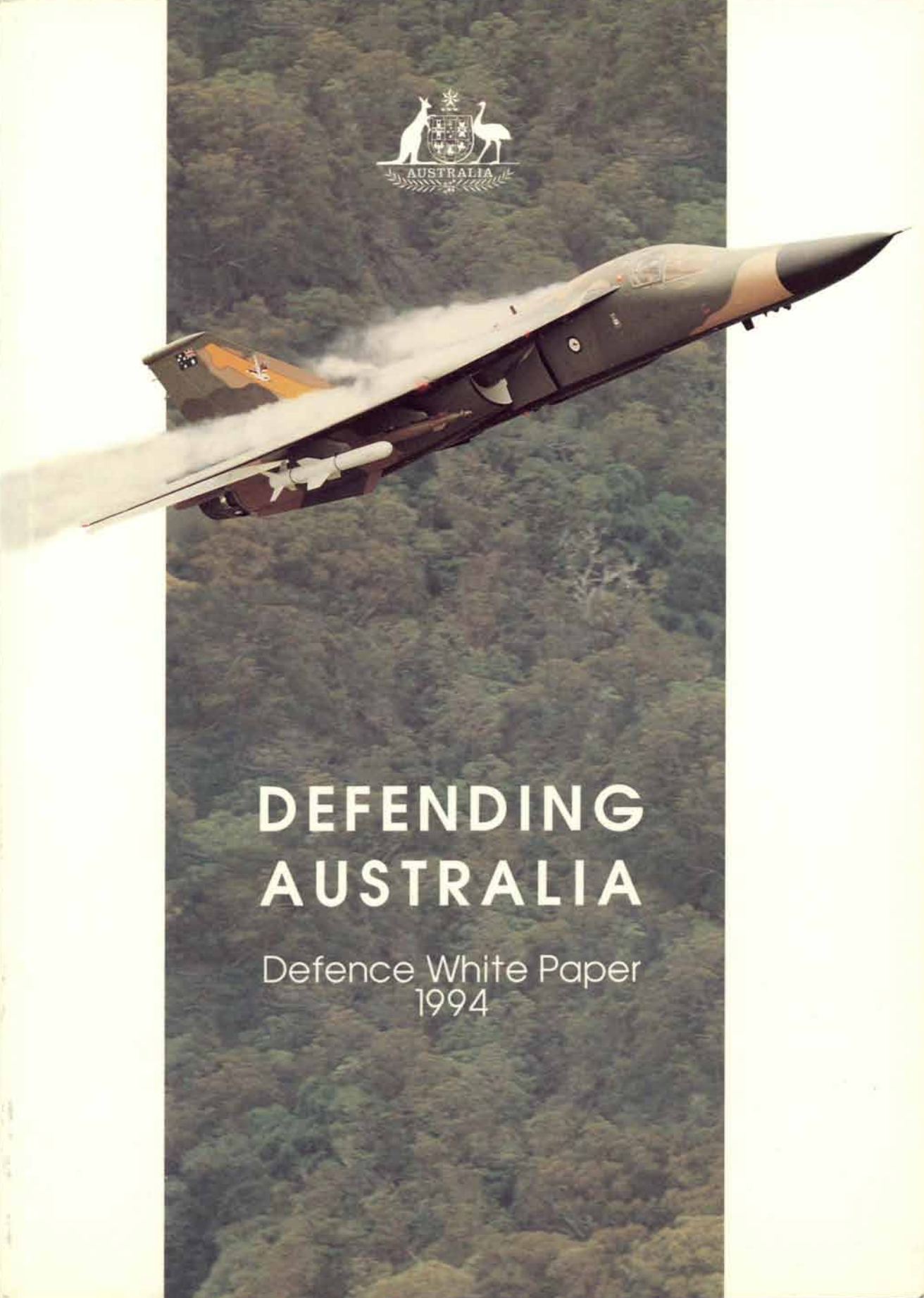

DEFENDING AUSTRALIA

Defence White Paper 1994

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Australian Government Publishing Service
Canberra

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PREFACE

This White Paper, *Defending Australia* explains how the Government will manage Australia's defence into the next century. It is the most comprehensive review and restatement of the Government's defence policy since the publication of *The Defence of Australia, 1987*, which established a clear and rigorous analytical basis for defence self-reliance. Since then, strategic circumstances in our region and around the world have changed, and new trends have emerged which will transform Australia's strategic environment over coming years. Military technology has developed, and the Australian Defence Force has undergone major reforms and developed substantial new capabilities. Over the same period, Australia's economic, technological, and social development have changed the domestic context in which we plan and develop our defence capabilities, and our international policies and outlook have evolved even further to give greater emphasis to the importance of engaging with our region.

This White Paper explains how the Government's defence policy can and will respond to these changes. While the fundamental precepts of self-reliance remain valid, the approaches we take to developing and sustaining our defence capabilities and strategic relationships will need to continue to evolve. Defending Australia builds on important changes to our defence policies announced in a number of statements and reviews published over the last four years, including the 1990 *Report on the Defence Force and the Community*, the 1991 *Force Structure Review*, the 1992 Price *Report on Defence Policy and Industry* and the 1993 *Strategic Review*. From that foundation, it looks ahead fifteen years to describe the key international trends that will shape our strategic environment, and to explain how the different elements of our defence policy will develop to meet the challenges ahead.

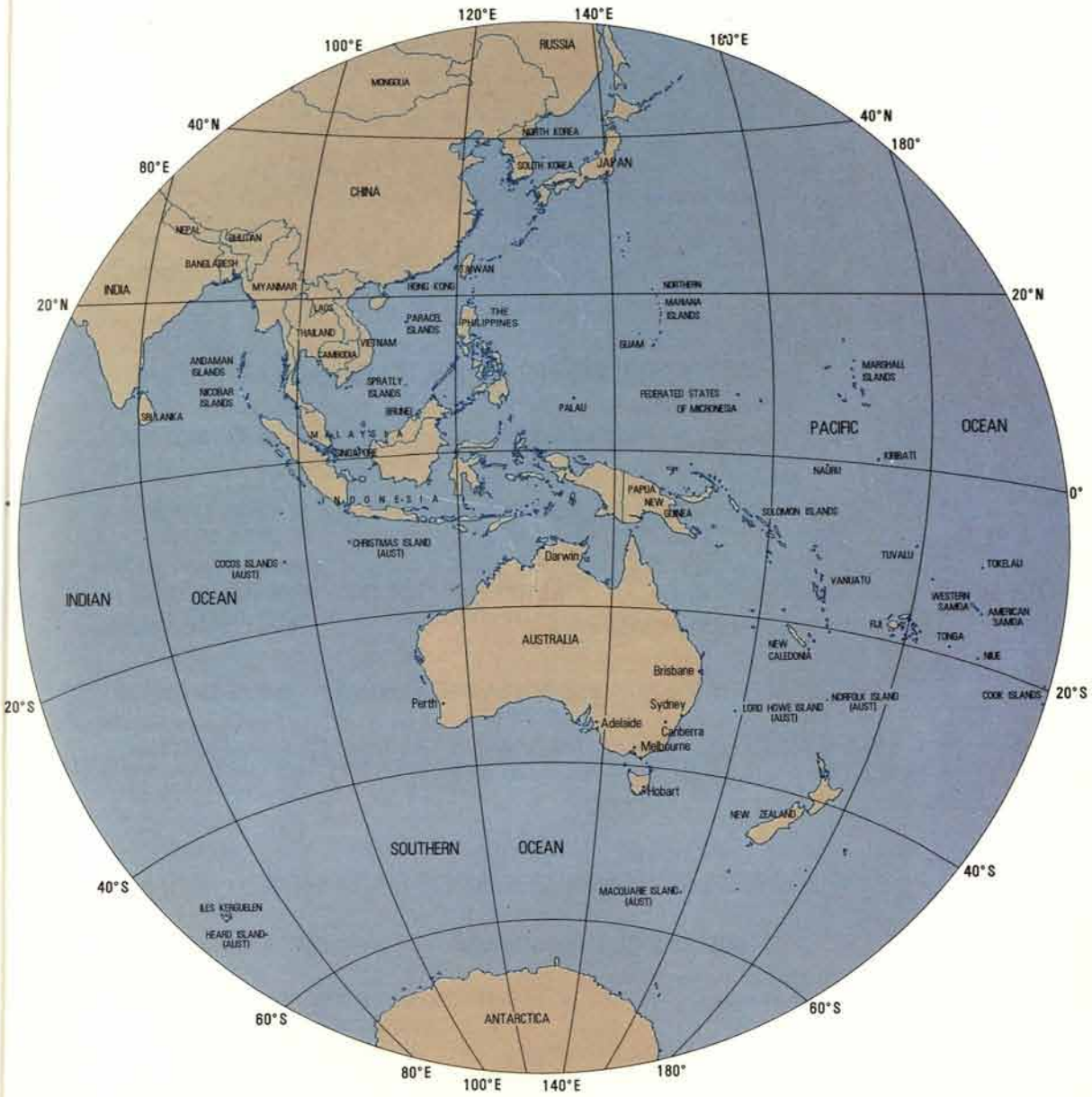
Our strategic circumstances at present are not threatening, but they are likely to become more demanding over the next fifteen years. Our defence capabilities will be developed so we can continue to be able to deter or defeat any credible armed attack, and our regional defence relationships and alliances will evolve to limit the possibility that armed attack on Australia might even be contemplated. As Australia's industrial and technological capabilities develop, and the demands on our defence capabilities increase, we will rely increasingly on our own national support base to underpin our defence. As our population and social structures change, the Australian Defence Force will change the way we employ people to conform to new social, economic and military realities.

The decisions we make on these issues over the next few years will determine the shape of Australia's defence well into the next century because major defence capabilities and strategic relationships take decades to develop. That is why this White Paper looks ahead fifteen years. It aims to explain to all Australians how their defence is planned and managed, and how it will develop in the years ahead. It will also help to inform other countries, including our regional neighbours, about the rationale of our defence posture, and so ensure there is no scope for misunderstanding. The publication of this White Paper is thus itself a contribution to our future security.

Above all, this White Paper reaffirms the Government's commitment to ensuring that in the decades ahead Australia will continue to be secure from military threat.

ROBERT RAY
Minister for Defence

Canberra
November 1994



AZIMUTHAL EQUIDISTANT PROJECTION
Only distances measured from Darwin are correct.

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PART I

The Foundations of Defence Policy

CHAPTER ONE

DEFENCE AND AUSTRALIA'S SECURITY

1.1 The Government has a fundamental responsibility to ensure Australia's defence. It meets this responsibility by ensuring that we can prevent or defeat the use of armed force against us. To do that we maintain defence forces and pursue national policies which support defence efforts, sustain favourable regional and alliance relationships and contribute to global security arrangements.

1.2 Maintaining a defence force capable of ensuring that armed force is not successfully used against Australia is essential because armed force remains a factor in international affairs. It continues to be one of the ways in which national power can be asserted and national self interest pursued. The end of the Cold War has reduced global threats, but at other levels the use of military force has not diminished and indeed may become more common. As the constraints imposed by the Cold War are lifted, and the economic and technical means to acquire military power become more widespread, so the use of that power to attain national objectives and international influence may grow.

1.3 Alliances, regional links and global security arrangements enhance our security environment by making attacks on Australia less likely and increasing the prospect of support from others. They also contribute to efforts to minimise the role of armed force in international affairs and establish credible, rules-based regimes for conflict resolution. Effective military capability is essential to our defence, however, because armed force can only be resisted ultimately by armed force. In Australia's case, the force on which we rely must be our own because our security environment and national interests are unique.

1.4 Australia's future security - like our economic prosperity - is linked inextricably to the security and prosperity of Asia and the Pacific. Australia's strategic engagement with the region is an integral element of our national effort to make our place in the region. Our defence relationships underpin the development of closer links in other fields. Our ability to defend ourselves and contribute to regional security does much to ensure that we are respected and helps us engage in the region by giving confidence that we can manage uncertainty and assure our security.

1.5 Australia's strategic stance is, in the broadest possible sense, defensive. We will not use armed force except to defend our national interests, and we do not envisage resorting to armed force other than in response to the use or threat of

force by others. We have no disputes with other countries which might be expected to give rise to the use of force, and no reason at present to expect that disputes of that sort will develop.

1.6 Nonetheless, our region is one of great dynamism, strategically as well as economically. The next fifteen years will see great change in our strategic environment. With the end of the Cold War, important new uncertainties have emerged about the future strategic situation in Asia. Economic growth will increase the power of nations in our region, and political change may make their policies less predictable. Because of these uncertainties, we acknowledge the possibility that our security environment could deteriorate, perhaps quite seriously in the future. We recognise that at some time in the future armed force could be used against us and that we need to be prepared to meet it.

1.7 If we are to do that, Australia must develop and maintain adequate forces today. A military force that has been neglected in peace cannot be revived quickly when a threat emerges. The military capabilities required to defend Australia must be sustained continuously if they are to be available and effective when they are needed because the necessary technologies and skills take a long time to develop. Modern military capabilities are enormously complex. Defence equipment embodies the most advanced technologies, and may take decades to acquire and bring into service.

1.8 The skills to operate modern weapons also may take decades to develop. The Australian Defence Force's skills need to be honed and tested continually if we are to be sure that our forces would be able to prevail in conflict. The same is true of Australian industry, whose capacity to support our forces in conflict is an integral part of our defence capability. This capacity must be nurtured carefully in peace. Also underlying the technology and skills of our Defence Force are the distinctive human qualities which are still integral to the profession of arms. Modern war still demands the age-old qualities of dedication and discipline, courage and comradeship. These qualities are inculcated by the Australian Defence Force, building over generations on the *esprit* of our fighting forces. If the men and women of the Australian Defence Force are to serve us well in war, we must continue to nurture them in peace.

1.9 Moreover, by developing and maintaining the capabilities of the Australian Defence Force in peace, we are not just preparing to resist aggression. We are helping to make war less likely. We are less likely to be subject to armed attack because our Defence Force clearly is capable of defeating any credible use of force against us. By sustaining forces which can effectively resist aggression, we help to prevent it.

1.10 While maintaining essential military capabilities and helping deter aggression against Australia, the Australian Defence Force plays a key role in maintaining the international policies and relationships which help ensure the security of Australia and its interests. The professionalism and capabilities of the Australian Defence Force mean Australia is among the first countries to be called on to assist in international security and humanitarian crises. In responding to peace enforcement and peace building demands in the Middle East, Namibia and Cambodia, and the humanitarian crises in Somalia and Rwanda, the Australian Defence Force has proven an effective instrument of national policy.

1.11 The Australian Defence Force also serves the nation well at home. In recent times, Australian Defence Force personnel have played key roles in the national response to major floods and bushfires, and its services continue to be called upon, and given readily, in search and rescue missions.

1.12 Important as these international and domestic activities are for Australia, they do not determine the force structure of the Australian Defence Force. The structure of the Defence Force is determined by its essential roles in providing for the defence of Australia.

1.13 We are rightly proud of our Defence Force, which by its ideals and achievements over nearly a century has done so much to define our national identity. Our defence self-reliance underpins our national self-confidence. Maintaining the capabilities to defend ourselves is important in the way we see ourselves as a nation. To ensure that we can continue to be confident that we have those capabilities, our defence policy will need to continue to adapt to meet changing strategic circumstances. This White Paper describes how that will be done, as our domestic and international environment changes over the next fifteen years.

CHAPTER TWO

AUSTRALIA'S CHANGING STRATEGIC OUTLOOK

2.1 For most of the last fifty years, the strongest threat to Australia's security was the possibility of global war between the superpowers. That threat has now faded. Australia's national interests, including our economic interests, could still be affected very seriously by events in Europe, the Middle East and elsewhere. As long as the threat of global war remains low, however, the likelihood of armed attack on Australia will depend on strategic developments in Asia and the Pacific, and particularly in Asia itself.

2.2 The region is now comparatively peaceful. The Korean Peninsula and South Asia remain areas of international tension and potential conflict; in the South China Sea, well-armed nations have competing territorial claims; in some countries, including Cambodia, the authority of sovereign governments is challenged severely; and elsewhere political repression holds back economic and social development. Generally, however, the stable pattern of strategic relationships in Asia and the Pacific over the last twenty years has enabled economies to grow and more effective governments to evolve, while the end of the Cold War has allowed many of the tensions and conflicts of the past to be resolved or eased.

2.3 Yet the relative peace in Asia may not last. The pattern of stable strategic relationships which has underpinned Asia's security in recent years is changing. The two major influences are the shifting relationships between the major regional powers, and economic and political change throughout Asia.

THE MAJOR POWERS

2.4 During the Cold War, the two superpowers and their relationships with China and Japan dominated strategic affairs in Asia and the Pacific. The United States and the Soviet Union had vital interests throughout the region, and the military capabilities to protect those interests. The uneasy bipolar balance constrained significant shifts in the strategic relationships between other countries in the region. Maintaining this balance was demanding, but it did produce a measure of stability throughout the region. Now some of the constraints are being loosened following the end of the Cold War.

2.5 Russia is still a major territorial power in Asia, but has lost the political motive and some of the military means to sustain a major strategic presence in the Western Pacific beyond its borders. It remains strategically important in North-

East Asia, and in the longer term it may again be a key player in Asia's wider strategic affairs. For the foreseeable future, however, it is likely to be more preoccupied with internal affairs and problems in other former Soviet republics, and so carry much less weight in the strategic balance in Asia and the Pacific.

2.6 The United States has emerged from the Cold War with a strong military presence in the Western Pacific, and will remain strategically engaged in Asia for as far ahead as we can see. It has important strategic and growing economic interests in the region, and will retain the ability to deploy and project very substantial forces into Asia. It will retain strategic commitments to Japan, South Korea and other allies, including Australia, and be an important participant in multilateral regional security affairs. As a result, the United States will continue to make a major contribution to the security of Asia and the Pacific. Nonetheless, the United States' engagement in the region is changing. With the collapse of the former Soviet Union, trade and economic issues will be more significant factors in its interests than in earlier decades. Changes within the region, for example in Korea, could affect the US presence, and the US-Japan relationship may become more complex. Although the United States will remain the strongest global power, the relative military strength of others in Asia will grow over time. The United States will remain a major contributor to security in the region over the next fifteen years, but it will neither seek nor accept primary responsibility for maintaining peace and stability in the region.

2.7 As a result of these changes, the strategic affairs of the region will be increasingly determined by the countries of Asia themselves. A new strategic architecture will evolve as the structures of recent decades fade. Much will depend on the policies of the major Asian powers - Japan, China and India - and on their relationships with one another and with other countries in the region. Perceptions of China's continuing economic growth and increasing political and military influence will be important, as will Japan's response to such factors as diminished US concern about Russia, China's approach to the region and the possible reunification of Korea.

2.8 As these key relationships develop, the stability the Cold War imposed on the region will be replaced by a more fluid and complex environment. A number of positive factors suggest that a new strategic balance will emerge in Asia to underpin peace and security, including the development of regional processes to foster trust and confidence on security matters and growing economic interdependence. The successful initiation of APEC and the ASEAN Regional Forum shows that the region can agree on broad goals. These developments give grounds for optimism. However, ethnic and national tensions, economic rivalry, disappointed aspirations for prosperity, religious or racial conflict, or other problems could produce an unstable and potentially dangerous strategic situation in Asia and the Pacific over the next fifteen years.

ECONOMIC GROWTH AND POLITICAL CHANGE

2.9 The second key factor shaping our strategic environment is the continuing rapid economic growth and political change in Asia. Many Asian economies will continue to grow strongly, and their technological capabilities will expand. These developments have direct strategic consequences. Strategic potential - the capacity to develop and support military forces - depends directly on economic strength and technological depth. The capacity of most countries in Asia to buy or build modern defence equipment, and operate it effectively, will grow very substantially in coming years. This is important for defence planning, because a nation's strategic potential may be a better indication of its long-term strategic significance than its current military capabilities.

2.10 Economic growth has enabled sustained increases in defence budgets and the development of sophisticated military capabilities, particularly advanced naval and air forces. This is not a result of economic growth alone: it reflects changing strategic perceptions and priorities. Armed forces are developing new roles as internal security becomes less demanding and external defence takes higher priority. This is not necessarily destabilising. Indeed, enhanced capabilities for defence can support regional security. We expect all countries to be capable of their own defence. Nevertheless, military developments over the next fifteen years will also add to the scale and intensity of combat which could be sustained, and will widen the range of military options available to many regional nations.

2.11 One particular concern is the potential for proliferation of nuclear, chemical and biological weapons and ballistic missiles. Such weapons already exist or could be developed readily by a number of Asian countries. The further spread of weapons of mass destruction would be destabilising.

2.12 Over the next fifteen years, the most important focus of economic growth in Asia will be China. If the patterns of recent years are sustained, China's economy will become the largest in Asia and the second largest in the world within the next fifteen years. This will affect global power relationships and become a dominant factor in the strategic framework of Asia and the Pacific. Economic growth is already allowing China to increase its military capabilities, especially of its maritime forces. China is likely to continue to pursue its strategic objectives by a combination of diplomatic, political and economic means, underpinned by its growing military strength.

2.13 Japan's economic and industrial strength already gives it huge strategic potential, and its armed forces are, and will remain, among the most substantial in Asia. Whether more of Japan's strategic potential translates into military power, or its defence posture changes in other ways, will depend on how it perceives the capabilities and dispositions of its neighbours, and especially on Japan's confidence

in its security alliance with the United States. That in turn is likely to depend on developments in the Korean peninsula, and on the broader trend of US-Japan relations.

2.14 India's economy is also likely to grow strongly in the next fifteen years. This will allow it to strengthen its already substantial forces and to exert increased influence, particularly in the Indian Ocean.

2.15 South-East Asia's economies will continue to expand, and most countries will continue to upgrade their armed forces. They have started from a relatively low base, but over the next fifteen years the strategic potential and military capabilities of most ASEAN countries will increase markedly.

2.16 The development of Indonesia's economy is potentially the most important strategic development in South-East Asia over the coming decade and beyond. Indonesia already has the largest economy in South-East Asia, as well as the largest population. If its economy can sustain high rates of growth, by 2020 it could equal Australia's. At the same time, Indonesia's armed forces will continue to develop their capabilities and professionalism.

2.17 The effects of these economic and military developments on the security of the region clearly will depend on political events in key countries. Significant evolution of Japan's political system seems likely. China's system of government is under pressure as it moves to become a modern industrial state undergoing huge economic and social change. Korea may well be unified, introducing a substantial new strategic element. The relationship between China and Taiwan is likely to evolve in response to political change in both, but in a direction that is not easy to foretell. Vietnam will face major challenges to adapt its political system to the demands of the modern world, and how it does that will determine whether its potential is realised. Indonesia will undergo an important leadership transition at a time of rapid economic growth and social change.

NEW CHALLENGES TO OUR DEFENCE POLICY

2.18 The long-term trends in regional security affairs we have identified will develop slowly, but are likely over the next fifteen years to affect our strategic circumstances significantly. They will have important and direct consequences for the development of Australia's defence policy.

2.19 First, the end of the Cold War means the passing of the structures which have shaped the regional strategic environment. Previously, our defence planning has been able to assume a degree of predictability in our strategic circumstances.

Now we need to take account of a more complex and changeable strategic environment. Australia's ability to help shape that environment will become more important to our security, and our policies will need to encompass a wider range of possible outcomes than in the more predictable decades of the Cold War.

2.20 Second, economic growth and expanding military capabilities throughout Asia mean that the nature and scale of forces that could be brought to bear against Australia, and to which the Australian Defence Force needs to be able to respond, will increase steadily over the next fifteen years.

2.21 Our strategic environment will become more demanding over the period covered by this White Paper. The challenge for our defence policy will be to ensure that we can continue to ensure Australia's security in these more demanding circumstances.

CHAPTER THREE

AUSTRALIA'S DEFENCE POLICY

3.1 The global and regional changes which are making our strategic outlook more demanding are also producing new patterns of relationships. One of the Government's major objectives is to establish Australia's place in these emerging patterns and to shape them to meet Australian interests. Australia's security as well as its prosperity in the decades ahead will depend on how well we do that. This requires an integrated approach across the range of foreign, defence, trade, immigration and other international policies, as well as domestic policies on economic, industrial, social and environmental issues.

3.2 The Government's defence policy contributes to this integrated national effort in two related ways - by ensuring that we are able to defend Australia from armed attack, and by sustaining our alliances and contributing to a global and regional environment in which attack on Australia is less likely. These are the key elements of our defence policy.

CAPABILITIES FOR THE DEFENCE OF AUSTRALIA

3.3 The foundation of the Government's defence policy is self-reliance, which requires that Australia maintain the military capabilities to defend our country without depending on help from other countries' combat forces. This approach to defence reflects our view of ourselves. Self-reliance in defence is essential to the Government's broader conception of Australia as a nation, proud of our continent and our achievements, and committed to preserving them.

3.4 Defence self-reliance also reflects strategic realities. Australia's security is not so vital to other nations that we can assume others would commit substantial forces to our defence. This will become increasingly so as our strategic environment becomes more complex. Our alliance with the United States does not mean we can expect it to provide for our defence. Indeed, that alliance obliges us to provide effectively for our own defence. Regional cooperation will be important in promoting a more secure environment, but it will not evolve into a collective defence arrangement which could subsume the defence of Australia into a wider regional defence organisation. Nor could we expect the United Nations to defend Australia. So defence self-reliance remains essential for us.

3.5 At the same time the development of our economy and technological skills has made self-reliance more achievable. By carefully planning and managing resources, efficiently using the advantages of our strategic environment, and exploiting the opportunities offered by technological developments, we can continue to sustain a self-reliant defence posture in the more demanding strategic circumstances of the future. This will be important not just to our security, but to our national independence, international standing and self-respect.

3.6 Our highest defence priority is therefore to build, maintain and support forces for the defence of Australia. By this we mean specifically that we should be capable, without combat assistance from other countries, of defeating any attack which could credibly be mounted against Australia. This task determines the capabilities we require in the Australian Defence Force.

3.7 Our approach to the defence of Australia emphasises understanding our strategic environment and guarding our sea and air approaches. It requires capabilities which can deny our approaches to an adversary, as well as capabilities to defeat incursions onto our territory. It therefore goes beyond our shores to include a range of direct interests which are important to our defence. That requires us to cover a vast area; over 10 per cent of the earth's surface. While our stance is fundamentally defensive, the Australian Defence Force is not limited to defensive operations. We will continue to develop capabilities which allow the Australian Defence Force, in responding to any use of force against Australia, to take the operational initiative within that area, and in some circumstances beyond it.

3.8 This challenge provides a rigorous analytical basis for determining our defence needs. It gives clear criteria for making the complex choices required in capability planning, and helps ensure the efficient use of our resources. The scale of the task relative to national resources means that we cannot afford to spend money on capabilities which are not essential to it.

3.9 In developing capabilities for the defence of Australia, we seek forces which provide a range of cost-effective options. Our objective would be a cessation of hostilities as rapidly and conclusively as practicable, consistent with protecting the range of national interests involved. These would include preserving our territorial integrity and economic interests, protecting Australian lives and property, maintaining our international standing, and avoiding unnecessary risks to the personnel and platforms of the Australian Defence Force.

3.10 A key feature of our defence is the need for our forces to be supported as much as practicable by Australia's wider resources. We seek to draw on the full range of skills and capabilities within the Australian community. This is necessary to ensure not only an adequate number of suitable personnel, but also effective support for our forces in times of conflict.

3.11 Planning for the defence of Australia takes full account of our broader strategic interests. Australia has important interests beyond the defence of our own territory, and the Australian Defence Force will be called upon in the future, as it has been in the past, to undertake activities and operations elsewhere in our region, and in other parts of the world, in cooperation with neighbours, allies and international institutions, particularly the United Nations. Recent deployments in the Gulf, Namibia, Cambodia, Somalia, Rwanda, the South Pacific and elsewhere, as well as our continual defence deployments around the region, have demonstrated that capabilities developed for the defence of Australia are sufficiently versatile to fulfil a wide range of other tasks. We do not need to make these activities a primary basis for our defence capability planning, because forces developed for the defence of Australia give us a sufficient range of options to meet them.

INTERNATIONAL DEFENCE INTERESTS

3.12 Our defence policy recognises that Australia's security from armed attack does not depend on our defence capabilities alone. It also depends in fundamental ways on maintaining a global and regional environment and a set of international relationships in which the use of armed force against Australia is made less likely. Working with other countries is therefore an essential element of our defence policy. As well as seeking self-reliance in the defence of Australia, we also seek diplomatic support and the cooperation with friends and allies to develop and sustain our own efforts for the defence of Australia.

3.13 The relationships and arrangements we value range from bilateral alliances through less formal international relationships and groupings to active support for multilateral security institutions and regimes. We have always recognised that Australia cannot be secure in an insecure region, and we have worked hard over many decades to support security in the region. This task is becoming more important as the regional security situation becomes more fluid and complex, and more dependent on the countries of the region themselves. In coming years, Australia will need to do more to ensure that our strategic environment develops in ways which are consistent with our interests. Active engagement in the strategic affairs of the region will be as important to Australia's long-term security as economic engagement will be to our prosperity.

3.14 Other regional countries recognise that the same is true for them, and as a result the scope for cooperation at both the bilateral and multilateral levels is increasing. Bilateral defence relationships, especially in South-East Asia, will expand as our levels of military capability converge and as we increasingly recognise shared strategic interests. Multilateral cooperation offers a framework in which trust, confidence, and mutual understanding can be developed; disputes can be avoided or resolved; and the more demanding strategic environment can be managed.

3.15 Our treaty relationship with the United States, though more than four decades old, continues to be a key element of our defence policy. It serves Australian, US and regional interests. It helps strengthen regional security by supporting US strategic engagement and activities in the region, and helps us maintain our own defence capabilities. We will work hard to keep the alliance vigorous and relevant in changing circumstances. Our US alliance, and also our relationship with New Zealand, will remain important to our defence policy over the next fifteen years.

3.16 At the global level, Australia is a proponent of consultative and multilateral security regimes. Our national interests are served by ensuring the existence of effective UN mechanisms for conflict prevention, management and resolution. As a middle power, we have a particular interest in fostering an orderly international system in which agreed norms of conduct constrain the use of force, and in supporting international institutions which give us important opportunities to shape that system. We support UN and other multinational peacemaking and peacekeeping endeavours because we consider that institutions which are effective, and are seen to be so, in crises today are more likely to be effective in helping to protect Australia's interests should they be challenged in the future.

3.17 In the same sense, our active involvement in negotiating and implementing arms control and non-proliferation regimes reflects not only an abhorrence of the use of weapons of mass destruction and inhumane weapons, but also our strong

national interest in preventing the spread of weapons of mass destruction among countries from which they could be used against Australia. Such a development could seriously complicate and add to the cost of Australia's defence.

MANAGING DEFENCE POLICY

3.18 Defence policy is coordinated carefully with other elements of the Government's international approach to reinforce our overall national security interests. As new forms of regional security interaction develop, the elements of our security policy will work even more closely together. Many areas of national policy contribute to Defence objectives, and Defence contributes to other national security interests. The Government has established effective mechanisms to coordinate overall security policy, especially between the Departments of Defence, Foreign Affairs and Trade, and Prime Minister and Cabinet. The Strategic Policy Coordination Group is a forum for frequent high-level consultation and a mechanism for coordination on the full range of strategic and security-related issues, as are regular consultations among the key Ministers involved. The activities of the intelligence community are also carefully coordinated to serve the needs of national strategic policy making.

3.19 The principal elements of our defence policy must be coordinated closely so we can respond to the challenges of our more demanding strategic environment. The planning and development of our defence effort will need to take account of the increased capabilities which could be brought to bear against Australia, as well as social and economic changes within Australia that affect the way we develop and sustain our forces. The pursuit of our international defence interests will need to adapt to changes in the policy and approaches of our allies, new opportunities and issues in our region, and new global agendas.

PART II

Capabilities for the Defence of Australia

CHAPTER FOUR

PLANNING AUSTRALIA'S DEFENCE CAPABILITIES

PLANNING THE DEFENCE OF AUSTRALIA

4.1 Careful planning for the defence of Australia ensures that we have the level and mix of capabilities necessary for defence self-reliance. The posture and forces we require are determined by our strategic geography and by the nature and level of capabilities which could credibly be used against us. This approach provides a rigorous, enduring basis for disciplined planning, even as our strategic circumstances become more demanding.

Strategic Geography

4.2 Our strategic geography is central in planning our defence posture and capabilities. Australia's location, size, population and infrastructure provide both advantages and challenges for our defence. As an island continent, the primary focus of our defence effort is on our sea and air approaches, which can be turned to our decisive advantage. An adversary attacking Australia would have to project and sustain forces across our sea and air approaches where hostile ships and aircraft are relatively easy to detect and attack, and will become increasingly so as technologies develop. We can therefore make it difficult for an adversary to mount or sustain an attack on our territory by denying our sea and air approaches to hostile ships and aircraft.

4.3 Australia could be most easily attacked in the north, where our sea and air approaches are shortest, so we need to pay particular attention to defending that area by being able to undertake operations in our northern approaches and across northern Australia. While our sparsely populated north provides great strategic depth, an adversary may seek to exploit the vast distances and dispersed population to mount small attacks at isolated locations. Those challenges mean that our forces must be highly mobile to allow rapid deployment into areas of contention and to conduct dispersed operations over wide areas. They must also be familiar with the difficult operating environment to gain advantage over a less well acclimatised adversary.

4.4 Our defence planning is also shaped by our human geography. We have a relatively small population but a strong education, technology and industry base. Our defence approach therefore gives priority to capabilities which rely on high

technology rather than on large numbers of personnel. That fits well with the priority, derived from our physical geography, we give to naval, air and highly mobile land forces which are technology intensive.

Levels of Capability

Capabilities and Threats

4.5 Within the priorities shaped by Australia's strategic geography, the defence posture and capabilities we need are determined by the nature and level of opposing capabilities which might credibly confront us. Our planning focuses on capabilities rather than threats. The existence of military capabilities which could be used against Australia does not in itself pose a threat to us. A threat of armed conflict only arises when, in addition to the required military capability, there is a cause which provides a motive, and an intention to use force in regard to that dispute. We believe no country at present has either a motive or an intention to attack Australia, and we have no reason to expect that any country will develop such a motive or intention. Our defence planning is therefore not based on an expectation of threat to Australia from any country.

4.6 Moreover, the motive and intention to attack Australia would not arise instantaneously. Countries do not readily resort to armed force to resolve disputes. In Australia's circumstances, significant changes in policy and attitude toward us, quite contrary to present trends, would be needed for any threat to emerge. We have a responsible approach to regional and wider international relationships and we maintain an evidently strong defence capacity; these help make such a change unlikely and help to ensure that we could expect clear and early indications of any changes.

4.7 Our planning recognises, however, that hostile motives and intentions can develop much more quickly than military capabilities can be built up. We cannot wait until a threat emerges because our forces could not be expanded faster than the emerging hostile motive or intention towards Australia. Australia therefore needs to maintain a defence force which can defeat those capabilities which could credibly be brought to bear against us in our sea and air approaches and on our territory.

Major Conflict

4.8 The scale of forces which could credibly be deployed in our approaches or on our territory is limited by the nature of capabilities developed by countries in our region and by our distance from powers with more substantial military forces. No country in Asia has developed the forces required to mount a major conventional attack on Australia sufficient to seize and hold significant territory on our continent. An adversary would need extensive amphibious and air capabilities to land and support a substantial land force, and strong sea and air capabilities to protect this force from reaction by Australian forces.

4.9 Moreover, while military capabilities are expanding throughout the region, no country is currently acquiring the range and scale of forces necessary for an operation of this magnitude. Nor does any country appear to have plans to develop such forces. The massive capital investment required far exceeds the programs any countries in the region are now undertaking. In addition, the development of these capabilities would need many complex new operational and support skills, and the establishment of new command structures and expertise.

4.10 Military capabilities on this scale cannot be developed in secret. We are confident that our intelligence would detect at an early stage the development of such forces. We know from our own experience that the capabilities required could not be developed from the existing low base in much under a decade. On the basis of these judgments, rather than on any attempt to predict the future, we are confident that we would have sufficient warning time to adapt and expand our own forces to defend Australia against a major attack of this sort. In turn, our response

would complicate any potential adversary's planning. While Australia maintains the ability to adapt and expand our forces quickly enough to meet any development by others of forces for major attack on our continent, we do not need to maintain the actual force structure for such operations now.

Short-Warning Conflict

4.11 We do need, however, to be prepared to meet the increasingly demanding range of conflict which could credibly be undertaken, should political circumstances change, with capabilities which are now available in the region, or which are likely to be introduced within a few years. The types of conflict which could be sustained with these capabilities are called short-warning conflicts. While our survival as a nation would not be at stake in such a conflict, great damage could be done to our national interests if we were unable to deal with the adversary and to settle the conflict on terms favourable to Australia. This might be no easy task. We need to maintain forces to deal with short-warning conflict because we would not have time to develop additional capabilities within the relatively short notice we might receive of the development of motive or intention to attack Australia.

4.12 The scale and intensity of short-warning conflict could range from small raids to larger and protracted operations. An adversary deterred from mounting larger attacks by our capacity to respond might nevertheless attempt to mount a series of lower level raids and other harassing actions. Countering these lesser forms of short-warning conflict could be demanding. This would be so especially if the adversary applied undeclared and limited force, in dispersed locations and over a long time, although in these circumstances Australia would of course have available the option of escalation, including the possibility of strategic strike.

4.13 Equally, our planning for short-warning conflict must acknowledge that once conflict starts, an adversary could use most of its effectively available capabilities. This will become increasingly significant for our defence planning as high technology weapon systems become more widely available. In short-warning conflicts, there will still tend to be fewer and less intense engagements than in major conflicts, in part because of constraints on the use of some types of weapon and because of the limited numbers of platforms involved. However, the use of high-technology weapons cannot be ruled out in any conflict in which they are available, especially where they could achieve decisive effects at relatively low risk and cost.

4.14 In planning Australia's defence capabilities over the next fifteen years, our most important challenge will be to adapt to the greater demands possible in short-warning conflict as capabilities in the region increase. While we do not expect any country to develop the capability to mount major attacks on Australia,

the availability of sophisticated equipment, and the increasing capacity of many countries to acquire and operate advanced military systems, are raising the level of capability in the region. These developing capabilities, especially in naval and air forces, will increase the potential scale of short-warning conflict.

4.15 These developments also change the nature and likely conduct of conflict. The range at which engagements can occur is increasing. The greater accuracy and lethality of weapon systems demands greater attention to stealth, deception and self defence capabilities, particularly of key assets. Air defence is increasingly important. Effective command and control of force elements, and layers of defensive systems, will be necessary for survivability. The demand for accurate and timely information is becoming greater, not only for the security of forces but also for the coordination and application of available assets. At the same time, the vulnerability of essential command and control systems to countermeasures is increasing.

4.16 It is not possible to predict precisely how fast and how far increases in capability will proceed over the next fifteen years. That will depend on a range of factors, including strategic developments, availability of weapons from major suppliers, economic growth and political developments. Our planning recognises nevertheless that the recent trend of increasing military capabilities in the region will be maintained, and may accelerate. That will require us to develop Australia's defence capabilities to ensure that we remain able to defeat any forces which could credibly be brought to bear against Australia in our sea and air approaches or on our territory in a short-warning conflict.

AUSTRALIA'S DEFENCE POSTURE

4.17 Our planning for the defence of Australia focuses on the development of a defence posture which exploits our natural advantages in geography, the development of technology and our wider national strengths to achieve our fundamental defence objective as efficiently as possible. This posture gives primacy to three key tasks:

- ensuring timely warning of significant developments in our strategic environment;
- maintaining a force able to defeat current or planned capabilities which could credibly be used against us in short-warning conflict; and
- maintaining the adaptability to expand or redirect our defence and national effort in response to developments in regional capabilities and to more demanding forms of conflict which could emerge in the longer term.

Using Geography

4.18 Our approach to these tasks is based on exploiting our geography. Our strategic geography is such that substantial forces would be needed to mount a major attack on Australia. This enables us to be confident that we can detect and respond effectively to the development of such forces. In preparing for short-warning conflict, we can exploit the vast distances which an attacker would need to cross. This ensures that we would have early warning of the deployment and launch of hostile forces in our sea and air approaches. This would allow us, as far as practicable, to engage those forces in our approaches, outside an adversary's weapons launch range of our assets and territory.

4.19 Developing our capabilities to take advantage of our strategic geography means, most importantly, making our sea and air approaches an effective barrier to attack. We therefore give clear priority to the naval and air capabilities required to deny our sea and air approaches to an adversary so that we can limit the lodgement and support of land forces or the mounting of air attacks.

4.20 We also seek to turn the vast and difficult areas of northern Australia to our advantage by ensuring that we can operate better there than any adversary. Our forces are familiar with the environment of northern Australia, and our equipment is optimised for conditions there. The capacity to draw on available civil resources and the development of essential defence infrastructure in northern Australia will enable the Australian Defence Force to sustain the necessary scale of operations with a major advantage over any adversary, who would have to operate in an unfamiliar environment and at great distances from support infrastructure.

Using Technology

4.21 The second key element in developing our defence posture is the exploitation of technology. The development of modern defence technology offers important new opportunities for our defence. As a result of technological advances in radar and other areas of surveillance, major platforms and force concentrations in our sea and air approaches will become easier to detect. The chances of success in projecting significant forces across our approaches against effective maritime forces would be limited, and the price of trying would be high.

4.22 Australia's forces already provide a formidable capacity to monitor our sea and air approaches and deny them to an adversary. With careful development of our naval and air forces, we can continue to make the potential costs and risks of substantial attack on Australia so high that an adversary would be unlikely to attempt such action.

4.23 Our land forces also play an essential role in the defence of Australia. By exploiting new technology in areas including surveillance, mobility and firepower, the land force can complicate an adversary's planning and make the risk and cost of action on Australian territory very high.

4.24 While new technologies provide new opportunities for Australia's defence, they will also expand the challenges we face. Many countries in our region will continue to develop modern capabilities and the skills to operate, support and maintain them. This poses a challenge for both our present and future defence planning. Our planning is based not just on likely developments over the next fifteen years, but on an awareness that the decisions taken over that time will lay the foundations for our defence capabilities further into the future when our strategic circumstances and relative technological capability may have changed even more significantly.

4.25 Our defence planning will need to accommodate these changes. Until now, we have been able to sustain a technological edge over the full range of capabilities that could be brought to bear against us. Over the longer term that advantage will not be maintained as economic growth and technological development increase the strategic potential of countries throughout our region. We will therefore become more selective about identifying those areas in which we need to maintain a decisive lead, and give priority to them. These will be areas in which we can reinforce our natural advantages in geography, or ones we judge to be particularly decisive to success in combat, and we will aim to build on our established strengths where possible. Not least of these strengths is the effectiveness of our training and discipline. We seek individual and collective skills which allow us to achieve the full effect from available assets.

4.26 In these ways, we will continue to develop excellence in those key areas which are needed to give us the decisive edge where it counts most. Among the key areas for development will be:

- intelligence collection, evaluation and distribution;
- surveillance and reconnaissance;
- command and control;
- key weapons and sensors; and
- electronic warfare.

Depth in Defence

4.27 The successful use of our geographical and technological advantages, backed by the diverse resources of our national support base and our thorough understanding of our region, provides Australia with a defence posture of great depth, drawing on every dimension of our defence effort. Geographically, the depth in our defences is derived from our ability to detect and engage hostile forces with a layered series of capabilities from distant surveillance and strike, through maritime and air patrol and interdiction forces, to air defence and land forces on and over our own territory.

4.28 The technological depth of our defences means that at every stage of an adversary's operations, from planning to execution, the adversary would expect us to be able to detect and respond to those operations. An important element of this is the depth of our knowledge of our region, which ensures that we would have early warning of the development of more significant capabilities, and of the emergence of hostile motives and intentions towards us.

4.29 At the national level, the depth in our defences derives from our ability to draw on a wide range of national resources to provide the greatest practicable opposition to any adversary. That requires integrating a range of civil assets and capabilities into our defence effort. Such integration includes collaboration with Australian industry to supply, repair and modify equipment and to provide through-life support; increasing reliance on the broader national infrastructure for transport and telecommunications; an extensive shift to commercial support for Defence activities in areas as diverse as aircraft maintenance and catering; and cooperation with Coastwatch and the people of northern Australia to ensure warning of hostile movements in a conflict. Our ability to draw on our wider national resources as part of our defence effort will become increasingly important as our strategic circumstances become more demanding. It enables us to sustain our relative capabilities more efficiently, and provides a wider base of expertise to draw on for developing and supporting high-technology systems. More broadly, the closer integration of Defence and the civil community strengthens Defence by making the Services more appealing employers, and provides important benefits to the community as well.

4.30 The result of effectively integrating our geographical and technological advantages, our knowing the region and having a wider national support base is that at no stage would an adversary be able to assume freedom of deployment or action. Caution would be necessary at all stages. Any adversary would be presented with a comprehensive array of capabilities, employed in a measured way for offensive and defensive operations.

4.31 Given the wide range of situations which could develop in short-warning conflict, we need flexible concepts for the use of our capabilities. A purely defensive response to any form of armed aggression would be very demanding on the Australian Defence Force, and could result in high costs for Australia for a relatively modest investment by an adversary. Our response to conflict would therefore include options to respond proportionately against the aggressor's own interests, including if necessary with strikes against military assets or selected infrastructure. The possibility of such action would increase the level of defensive measures an adversary would need to take, thus reducing the level of offensive effort that could be directed against our forces or territory; and it could deter attack altogether.

4.32 Depth in defence requires responsive national mechanisms; effective command and control of a cohesive Australian Defence Force; carefully targeted intelligence and surveillance operations; and highly capable, responsive and mobile forces that can deal with threats quickly and decisively. To make the most effective use of each of our operating environments - sea, land and air - the Australian Defence Force is structured in such a way that anyone wishing to apply military force against us would need to contend with the coordinated and efficient action of all our forces under joint operational command.

4.33 In our sea and air approaches, the coordination of naval and air forces allows us to deploy our forces in ways that make an adversary's operations difficult, or to channel hostile forces into areas where they can be most easily dealt with by the land force. In turn, land force operations will be closely coordinated not only with maritime forces but also with activities of civil authorities and the civil community, both to draw upon their capabilities and to provide a measure of protection.

4.34 As far as possible, capabilities acquired by the Australian Defence Force will have characteristics which enable them to contribute to a number of operational roles. For example, the way our land and air forces prepare to deal with potential incursions is influenced by the quality of our intelligence about an adversary's intentions and the capacity of our naval and air elements to intercept hostile forces. The structure of our naval and air elements is influenced in turn by how they can best work together to patrol our sea and air approaches and defeat hostile forces in those approaches. Forces structured this way will best prevent successful attacks on our territory, our offshore islands, our shipping and offshore resources, and ensure our capacity to re-supply northern Australia.

Australian Defence Force Roles

4.35 To achieve this posture for the defence of Australia, Defence needs to be able to undertake the following key roles:

- command, control and communications;
- intelligence collection and evaluation;
- surveillance of maritime areas and northern Australia;
- maritime patrol and response;
- protection of shipping, and offshore territories and resources;
- air defence in maritime areas and northern approaches;
- defeat of incursions on Australian territory;
- protection of important civil and defence assets, including infrastructure and population centres; and
- strategic strike.

4.36 To perform these roles successfully, the Australian Defence Force depends critically on our ability to support and sustain operations. This requires a significant national effort and close cooperation between the Force's logistic resources and those of the community as a whole. There are key tasks which only the Australian Defence Force can undertake, but increasingly non-operational functions will be accomplished through national support.

Preparedness

4.37 The successful implementation of our defence posture requires the Australian Defence Force to be ready to undertake operations when needed, and to be able to sustain operations for as long as needed. These two characteristics of readiness and sustainability together constitute the Force's preparedness.

4.38 Careful attention is given to the degree of readiness we require in different elements of our Defence Force in our strategic circumstances. Prudence requires that we hold sufficient forces at relatively high readiness to deal with events which could arise with little warning. However, even the lower levels of short-warning conflict are unlikely to occur without a clear indication of deterioration in relations, and probably also notice of military preparations. Readiness is expensive, requiring higher rates of training activity, including expensive collective training and live weapon firing, near complete staffing, and fully provisioned and maintained equipment holdings. Readiness must therefore be held carefully at the level appropriate to our strategic circumstances and program of activities.

4.39 Relatively high levels of readiness are required in capabilities which contribute to intelligence and surveillance; patrol and response in our sea and air approaches; some elements of our strike capability; and land force surveillance, reconnaissance, ready reaction and special forces elements. These forces need to be especially well trained, both individually and as operational units, well equipped and familiar with their likely areas of operations. Many Australian Defence Force units are now located in the north and west of the continent during peace, and increased opportunities are being provided for other units to train regularly in those areas. Individual and unit skill levels are also promoted through training and exercising with allies and regional countries, and participating in multinational activities.

4.40 Sustaining forces in combat requires provision of sufficient consumables to support the rates of activity; maintenance, repair and replacement of assets and equipment; and the relief of deployed forces. It is essential to have reliable and assured sources of support and supply, or adequate stockholdings, and the capacity to deliver the support to the operational areas where and when it is needed.

Sustainability is particularly demanding in relation to high-cost items such as missiles, which require periodic inspection and may have components with a limited shelf-life. Careful attention is paid to maintaining sufficient stocks of key items to sustain combat for as long as might be necessary in our strategic circumstances. However, stocks are expensive to hold, and we must be careful not to waste resources by building up stocks to levels higher than our strategic circumstances require. Access to a range of reliable sources of resupply is important in reducing our need to hold expensive stocks, and is given high priority in preparedness planning. Sustainability also depends on repair and maintenance capabilities, both in the Defence Force itself and in the wider community, and on training systems for the timely provision of reinforcements and replacements.

4.41 Sustainability involves complex judgements about the nature, dispersion and duration of operations, together with assessments of lead times for the acquisition of goods and services. Reliance on commercial sources and confidence in international supply support arrangements not only reduce resource demands but also the risk inherent in the complex judgements involved.

4.42 Our overall preparedness levels are influenced both by planning for the defence of Australia and by the Australian Defence Force's peacetime program of activities and exercises. This includes counter-terrorism capabilities; the Defence Force's contribution to other national tasks such as fisheries patrol, coastal surveillance, and assistance to the civil community; participation in bilateral and multilateral exercises and activities; and contributions to peace operations and other activities in support of our international policies.

4.43 We will continue to emphasise strengthening the long-term capacity of our Defence Force through investment, rather than on sustaining higher levels of preparedness than our present strategic circumstances and levels of activity require.

Adaptability

4.44 While our planning focuses on short-warning conflict, it also considers those higher levels of conflict which could occur in the longer term as major new capabilities develop in our region. Our approach to these forms of conflict has two parts: maintaining an intelligence capability which ensures timely warning of major capability developments; and having the adaptability to modify and expand our own capabilities relatively rapidly if necessary.

4.45 Adaptability is also a characteristic of our wider national defence effort. It requires a flexible defence capability base which we can enhance or expand; a national industrial, scientific and technological base which allows us to redirect and expand our defence effort in a timely way; the skills and capacity of our

population to support our national defence effort; and effective planning for the management of our national response, including relationships with the civil community and between various levels of government. Such adaptability allows our force to be smaller now than we would need if we sought to maintain all the capabilities which we might be need in the more distant future, or if we did not have the capacity to adapt quickly.

4.46 The extent to which Australia can rely on the adaptability of our defence capabilities to meet future demands depends on our confidence that lead times for the introduction of new capabilities would be shorter than the warning we would have of the need for them. As military capabilities and technology in our region grow, the demands on our capacity to adapt our forces will grow. Lead times to develop new capabilities involve materiel acquisition and the development of doctrine, skills and experience in using and maintaining defence equipment. In general, lead times are longer for those capabilities which rely on technologically complex systems and which demand sophisticated training, exercising and support.

4.47 Ensuring sufficient adaptability to meet future challenges has several important dimensions:

- it is influenced by the capacity of the national infrastructure to support the Australian Defence Force, not only in acquiring materiel but also in providing services and through-life support so the Force can concentrate its efforts on combat functions;

- it requires all the forces, including Reserves, to contribute effectively to operational activities, and in the case of Navy and Air Force, to have available trained personnel to enable an early increase in the rate of effort from existing platforms; and

- it would be assisted by the existence of a base of trained personnel, especially junior officers and experienced non-commissioned officers, to reduce the lead time for military staff development.

Versatility

4.48 An Australian Defence Force structured primarily for the defence of Australia will possess significant capabilities which can be used flexibly in a wide range of activities. It has considerable versatility. The Australian Defence Force thus provides many options for undertaking activities which flow from other elements of our defence policy or in support of wider government interests.

4.49 The versatility of the Defence Force has been demonstrated well by the deployments in support of UN and other peace operations. Our capabilities have met our needs in these areas. Given the discretion we have in choosing whether and how to employ defence capabilities to support these tasks, the available options will be adequate in virtually all situations of interest to Australia. If situations arose where the Force lacked the specific characteristics to provide adequate options, we would consider some marginal variations to force structure. The justification for this would be examined on a case-by-case basis. Variations might include, for example, adopting compatible communications standards to allow interoperability with allied or regional forces, or adjusting the timing of the acquisition of capabilities for use in multinational activities.

Force Development Priorities

4.50 Our present defence capabilities, and the substantial developments we have underway, provide a strong foundation for building the Defence Force over the next fifteen years and beyond to meet the needs of our defence posture. We have, and are developing, strong and expanding intelligence capabilities and enduring intelligence relationships with friends and allies; modern surveillance assets, including the unique capability of the Jindalee Operational Radar Network; potent capabilities for patrolling and guarding our sea and air approaches and for longer range strike operations, including F111 and F/A-18 aircraft, guided missile and ANZAC frigates, and the Collins class submarines; and flexible and mobile land forces increasingly based in northern Australia and well equipped for operations there. Our task in coming years is to develop these capabilities further to continue to ensure that we can defeat forces which could credibly be brought to bear against us. In doing that, we will give priority to:

- developing the Australian Defence Force as an integrated whole, including command arrangements and doctrine at the operational level;

- carefully identifying areas and capabilities in which we need to maintain a high degree of excellence, in particular, command, control and communications; and which effectively use our strategic geography, in particular, maritime and air capabilities;

- cultivating our ability to expand and enhance our forces in response to significant new capabilities which might be brought to bear against us; and

- strengthening our national support base for defence.

4.51 Planning for the defence of Australia is dynamic. Constant improvement is required simply to maintain relative capability. Force development is continuous, responding to changing strategic circumstances, and the evolution of military technology and the nature of conflict. Important to this process is the matching of personnel, training, equipment, organisation, structure, deployment, preparedness and doctrine, all components of capability.

4.52 As regional capabilities grow, we need an active force development program simply to preserve existing levels of defence effectiveness. Emphasis needs to be given therefore to preserving the investment program so that our platforms remain effective and our skills in applying force are preserved. This will provide challenges in both our acquisition and personnel programs.

CHAPTER FIVE

DEVELOPING AUSTRALIA'S DEFENCE CAPABILITIES

5.1 The Australian Defence Organisation today possesses a wide range of substantial capabilities, as set out in Appendix A. The combat capabilities, and most combat support capabilities, reside in the Australian Defence Force, although some - notably, intelligence collection and evaluation and significant support capabilities - reside predominantly in the civilian elements of the Defence Organisation. The capability developments proposed in this Chapter will ensure we can meet defence needs as our strategic environment becomes more demanding over the next fifteen years and beyond.

5.2 Many platforms and assets can contribute to more than one of the key defence roles, either at different times or simultaneously. Thus they contribute very broadly to the Australian Defence Force's capacity to defend Australia. In this Chapter, assets are treated under the role or roles to which they make the major contribution, rather than considering in detail the full breadth of the contribution they could make to other roles.

COMMAND, CONTROL AND COMMUNICATIONS

5.3 Effective command and control of Australia's forces is fundamental to success in any conflict, just as it is to the efficient management of force elements participating in peacetime activities.

5.4 The revolution in information technology is changing the ways in which armed forces are commanded and controlled, allowing much more efficient use of military capabilities and better coordination of activity at all levels. These developments will continue over coming years. The successful exploitation of new command and control capabilities will be increasingly important to Australia's defence because it will allow us to use our ships, aircraft and land forces to maximum effect.

5.5 Our capacity for tactical level command is good, but we have not been as proficient in joint operational command of our forces. To provide for more effective command at the operational level, the existing joint headquarters will be collocated by 2000. This will provide more flexible options for operational command: where necessary, the appointment of a Commander Joint Forces Australia, the appointment of a lead Joint Force Commander or continuation of our present system. A

transitional arrangement will be established in 1995 at the existing Maritime Headquarters site at Potts Point. This will help define joint operational concepts, requirements and staff processes.

5.6 The collocated joint force headquarters will be supported by a Joint Command Information Support System which will be acquired progressively over the next few years. This will interface with the Australian Defence Force Distributed Intelligence System and single Service command support systems, such as the Australian Army Tactical Command Support System, which are currently being developed.

5.7 These evolving command and control arrangements are supported by flexible strategic level communications which draw wherever possible on civil networks and systems, backed up by a minimum emergency Defence network. The Australian Defence Force also operates a range of modern communications systems which provide coverage of Australia and our sea and air approaches for mobile naval, land and air forces. A joint, Australia-wide high frequency radio communications system is being established to provide a reliable, integrated service at reduced operating costs. The new tri-Service facilities will be constructed at four sites including one at Wagga Wagga to replace the existing Navy communications facility in Canberra.

5.8 Familiarity with space systems and research will be important. Further development of integrated joint communications systems will include satellite communications, initially using civil satellites and military transponders. The cost effectiveness of military satellites, with broader applications such as surveillance, will be examined. As the relative costs of space-based systems decline, they may well become a cost-effective means of meeting national surveillance and communications needs. We are also moving into an era in which communications and computer systems will merge in seamless networks. This will require careful attention to security needs, including the acquisition of security devices and systems capable of protecting Australian information.

INTELLIGENCE COLLECTION AND EVALUATION

5.9 Our defence planning and strategy rely on timely warning of changes in our strategic environment, particularly developments in political attitudes and military capability, including the introduction into our region of any significant new capabilities. Collection, evaluation and distribution of intelligence information allows the timely development of our defence posture and force structure in ways appropriate to our circumstances, and contributes to effective command and control of our forces in operations and during peacetime activities.

5.10 Information is drawn from a wide range of sources to prepare intelligence assessments. Collectively, the Defence Signals Directorate and the Defence Intelligence Organisation have significant capability to provide information and analysis to meet the demands of the Defence Organisation and the Government. Collaboration with other countries with whom we have intelligence-sharing arrangements, especially the United States, is essential in meeting the demand for intelligence.

5.11 In the medium term, further development of Australia's defence intelligence will use advances in technology to ensure ready availability of data to commanders at all levels. The Australian Defence Force Distributed Intelligence System will ensure that information is processed and disseminated quickly and securely. It will be complemented by high speed, high capacity communications which will allow users at the strategic, operational and tactical levels to gain access to the intelligence necessary to support their decision-making.

Environmental Information

5.12 While the collection and analysis of environmental information is not always a high profile activity, it is essential to enable the Australian Defence Force to operate effectively in northern Australia and the adjacent sea and air approaches. This information improves the performance of our sensors and weapons and gives a natural advantage to our forces. The ports, shipping routes and focal areas in the waters of our sea and air approaches attract the highest priority for hydrographic and oceanographic information, while our coastal areas and offshore territories attract priority for land survey. It is also important to provide meteorological and ionospheric information across those regions.

5.13 Environmental information is collected by various elements of the Australian Defence Force: hydrographic information by Navy using its survey ships and aircraft; opportunity tasking of Navy ships and data exchange programs; and land survey information by the Army Survey Regiment. Various State and local government authorities and agencies provide extensive data and information. Civil organisations are used wherever possible for activities such as remote sensing.

5.14 We will continue to give high priority to the collection of information about our operational environment, making optimum use of commercial support. We will also emphasise maintaining the existing capacity to collect and process environmental information and improve the integration of geographic information with command, control and combat support systems. The survey ships HMAS Flinders and Moresby, which are approaching the end of their economic lives, will be replaced by two new hydrographic ships. We are also evaluating options to

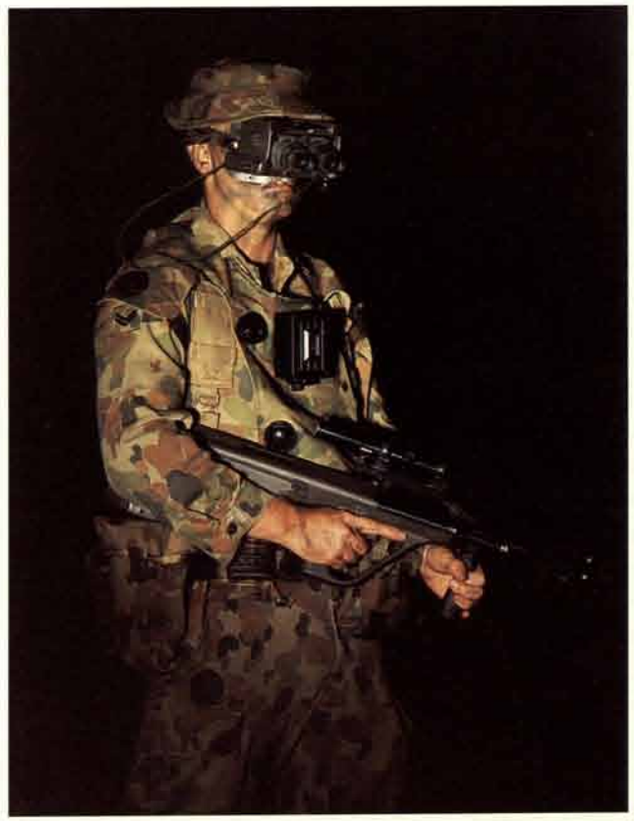
supplement Australian Defence Force hydrographic capacity and meet oceanographic needs with contractor support. Finally, Army mapping systems will be updated.

SURVEILLANCE OF MARITIME AREAS AND NORTHERN AUSTRALIA

5.15 The ability to locate and monitor potentially hostile forces in our sea and air approaches and on our territory is essential to prevent or nullify threats to our interests. The Australian Defence Force possesses significant capabilities to detect and monitor aircraft, ships and submarines in the sea and air approaches to our territory. The capability to detect and monitor any forces which may have lodged on our territory is more limited. The capability for wide area surveillance will continue to be improved over the coming decade with the introduction of new high technology systems.

5.16 The Jindalee Operational Radar Network will be completed to provide broad area surveillance coverage of ships and aircraft in Australia's sea and air approaches. Ground based microwave radars, surface combatants with a range of active and passive sensors, including naval helicopters, and maritime patrol aircraft such as the P3C Orion, all contribute to surface and air surveillance. While our detection capabilities are good, localisation of detected air targets needs further attention. Towed acoustic arrays are being fitted to the Collins Class submarines to provide a further capacity for detecting ships and submarines, and similar arrays will be fitted later to surface ships. Maritime patrol aircraft and naval helicopters carry sonobuoys which can detect submarines within localised areas. The feasibility of fixed seabed acoustic arrays for wide area maritime surveillance will be investigated.

5.17 Surveillance of northern Australia can be carried out using both air and land force assets. F111 aircraft can undertake specific reconnaissance tasks, day and night. Other Australian Defence Force aircraft, such as helicopters, can also undertake aerial reconnaissance or deploy forces for ground patrolling. Land force elements, such as reconnaissance squadrons, special forces and regional force surveillance units, supplemented as necessary by infantry units, can cover large land areas using a variety of armoured and other reconnaissance vehicles. Ground surveillance is enhanced with systems such as night vision devices, advanced radios and global positioning satellite navigation equipment. Most of these systems, however, are restricted in area of coverage or application.



5.18 Further development of Australia's capacity for surveillance will focus on better integrating surveillance information from a variety of sensors, and ensuring our sensors remain effective against evolving electronic countermeasures. The Defence Force will also enhance its capacity for precise location and tracking of ships, aircraft and small widely dispersed ground force groups.

5.19 A promising area of investigation is the use of unmanned aerial vehicles for surveillance of land and maritime environments. These remotely controlled aircraft can employ a variety of sensors and be operated by land and naval forces to provide flexible and responsive surveillance coverage. The available options are being examined to determine their cost effectiveness relative to other systems such as piloted aircraft and space based platforms and the extent to which they can complement the wider Australian Defence Force surveillance effort. For example, unmanned aerial vehicles may meet part of the need to replace Army's Kiowa reconnaissance helicopters and to provide aerial surveillance from Navy's patrol combatants.

5.20 Australia's air surveillance capability includes a range of overlapping systems extending from the wide area coverage provided by the Jindalee Operational Radar Network to the local area coverage of radars and other sensors on aircraft and ships. Our total capability enables initial detection of aircraft at long range and subsequent precise localisation and classification. This significant reliance on combat aircraft to localise and classify unknown targets can also be inefficient and place the combat aircraft itself at undue risk. Thus the Defence Force needs an air surveillance system which can provide intermediate-range detection, localisation and classification of air targets, and control any subsequent interception. Such a capacity could be provided by an airborne early warning and control capability.

5.21 Defence has continued to monitor developments in airborne early warning and control technology to identify an affordable option which meets Australia's needs. Recent developments in radar technology present a number of possibilities. The Government has approved the first stage of the acquisition of a suitable aircraft: a project definition study, planned for completion in 1995, to define the technical characteristics and costs of options and their potential contribution to wider Australian Defence Force surveillance, command and control arrangements. Subsequently, a suitable airborne system should be acquired by about 2000.

MARITIME OPERATIONS

5.22 A primary objective in defending Australia would be to prevent hostile forces from reaching our territory or from launching successful attacks against Australia's interests in our sea and air approaches. The Australian Defence Force maintains capabilities for patrolling our sea and air approaches, responding quickly and decisively to any emerging threat, and protecting shipping, territories and resources in these approaches. This protection could involve countering a number of threats, including the mining of focal areas and port approaches, attacks on merchant shipping or civil aircraft in our sea and air lines of communication, or raids on our offshore resource infrastructure and territories. Capabilities for maritime operations are based around a mix of aircraft, ships and submarines, each fitted with appropriate sensors and weapons. These force elements are also able to contribute to strategic strike and air defence in the sea and air approaches to Australia.

5.23 The Government has made a substantial investment in recent years in surface ships and submarines. This reflects the strong maritime emphasis in the concept of depth in defence. Investment will continue in maritime forces, with approved or planned projects to upgrade maritime fixed wing aircraft and acquire mine warfare vessels, surface combatants and an enhanced naval aviation capability. With the increasing availability of precision weapons, long-range sensors, and 'clever' countermeasures, the demands which could be placed on our patrol platforms are increasing. Australia's capacity for maritime operations will be

developed further to ensure the sensors and weapons carried by our platforms remain effective in the face of developments in technology, and that new platforms such as the ANZAC frigates are fitted with necessary sensors and weapons, including helicopters.

5.24 The P3C Orion aircraft can patrol large maritime areas and intercept hostile ships or submarines using a variety of sensors and precision missiles and torpedoes. The P3C fleet will undergo a major upgrade over the remainder of this decade to improve significantly its surveillance capacity and to extend its operational life. F111 and F/A-18 aircraft can also use stand-off precision weapons to defeat hostile ships.

5.25 Our surface combatant fleet, with air support and ship-borne helicopters, has the reach and endurance, particularly when supported by afloat support ships, to patrol our large maritime areas of interest and respond to threats. Australia's six guided-missile frigates (FFGs) will be upgraded to extend their operational life and ensure their survivability in the increasingly sophisticated maritime warfare environment.

5.26 The introduction into service over the next ten years of eight ANZAC frigates will significantly enhance our surface combatant fleet, improving our capacity for maritime patrol and response and protection of shipping. The first of the ANZAC frigates was launched in Melbourne in September 1994 and the last will be launched by 2002. Planning has begun to identify the required surface combatant force capabilities after the three guided-missile destroyers (DDGs) leave service, currently planned from about 2000.

5.27 A new class of patrol vessel will be acquired to replace the Fremantle Class Patrol Boats. The new vessels will have more capable combat systems, weapon and sensor suites, allowing better integration with other maritime assets and hence a capacity for surface warfare in coastal and inshore waters. A contract was let in 1993 for an Australian design which will be submitted to Malaysia for consideration in its plans to acquire a large number of offshore patrol vessels. Selection of that design by Malaysia could provide an important opportunity to develop a collaborative acquisition project and support program between Australia and Malaysia. Timing of the acquisition of the new patrol vessels has yet to be decided. In the meantime, the option to extend the life of the Fremantle Class remains available.

5.28 In future, all major surface combat units will be equipped with helicopters to extend the effectiveness and range of the ships' combat systems. Seahawk helicopters currently operating from our surface combatants increase the effective range of the ships' sensors and weapons, and possess systems to locate and if necessary defeat hostile submarines. The Sea King utility helicopters operated by Navy will be modified to extend their life until about 2010, delaying the need to acquire new maritime utility helicopters.

5.29 Helicopters will be acquired for the ANZAC frigates. A decision on the number and type will be made in 1995-96. Acquisition of a common type of helicopter for other surface combatants is also being considered. The ANZAC frigate helicopters will be equipped to undertake surface surveillance and reconnaissance tasks and to provide data on over-the-horizon contacts. Some of the helicopters may be equipped with an air-to-surface missile. To optimise logistic support arrangements and minimise costs, the Government will seek the greatest practicable level of commonality in helicopter types across the Australian Defence Force.

5.30 The force of six Collins Class submarines being introduced over the remainder of this decade will provide a very substantial capacity for maritime patrol and response, maritime strike and support of a number of other roles. Our fleet of Collins Class submarines will be an important element of our capacity to deny our sea approaches to hostile shipping and to mount strike operations at long range. These submarines are difficult to detect and therefore are less vulnerable than surface ships and aircraft, while their sensors and weapons allow them to detect and attack shipping with accuracy at long range.

5.31 Six Collins Class submarines are considered appropriate to meet current and foreseeable needs, and additional submarines will not be acquired now. The priority for acquiring additional submarines will be reviewed after the commencement of the first five year Defence budget in 1996-97, taking into account Australia's strategic circumstances. Early in the new decade, planning will commence on an upgrade of the six submarines to ensure that they remain effective in the face of developing technology and to take account of developments in conventional air-independent propulsion systems. Defence will also continue to monitor the need for more capable submarine-launched missiles.

5.32 Six Huon Class minehunters will be constructed in Newcastle over the remainder of this decade to balance the planned Australian Defence Force mine countermeasures force. This force will have a significant capacity to detect and neutralise mines in port approaches, confined shipping routes and focal areas. The new vessels will complement existing assets which include two Australian-designed inshore minehunters and a number of small vessels which can tow the Australian-designed mine sweeping system. Planning includes the acquisition, as necessary, of craft of opportunity such as fishing boats or tugs to enhance mine sweeping capacity. Mine clearance divers also contribute to our mine countermeasures capability. A mine warfare systems centre is being built at HMAS Waterhen in Sydney to provide operational, logistic and training support of the mine countermeasures force.

5.33 Attacks on shipping beyond Australia's port approaches could be avoided during a conflict by re-routing ships away from threat areas, though this would

involve a cost penalty. Some merchant ships - including those supporting Australian Defence Force operations - may, however, be unable to avoid threat areas. The Australian Defence Force therefore maintains a capability for escorting ships using its fleet of surface combatants, assisted by a range of aircraft where their reach and endurance permit. Australia's offshore territories and oil and gas resources infrastructure would be protected by a combination of maritime patrol aircraft and surface combatants, air defence using F/A-18 aircraft and ground-based missiles, and deployment as necessary of land forces.

5.34 Harpoon missiles, a key element in our capacity for maritime operations, are deployed on a range of Australian Defence Force aircraft, ships and submarines. We will continue to improve our precision missile capability.

5.35 The Government has acquired two heavy landing ships to replace the training ship HMAS Jervis Bay and the heavy landing ship HMAS Tobruk. They will be modified to provide a capacity for training, afloat medical support and helicopter operations. These ships will enable the transport of land force groups of up to battalion size with tanks, other vehicles and equipment. These ships will be able to carry sufficient helicopters to land platoon size groups of up to 30 personnel in a single lift. Following their modification in 1995-96, they are expected to

provide a further twenty years service. Future requirements for a logistics over-the-shore capability in support of land force operations are the subject of further analysis.

5.36 With the introduction of new platforms such as minehunters, ANZAC frigates and Collins Class submarines, Navy personnel numbers will need to increase. Opportunities to offset this increase by reducing uniformed personnel numbers in support areas are limited in Navy, which already relies extensively on civil support. The present Navy full-time personnel strength of 14,800 will therefore be increased marginally to support the increased capabilities. While it is desirable for submarines to be crewed by volunteers, all entrants to the Navy will continue to be liable for submarine service. Among other measures, a selection process is being introduced which will identify and encourage personnel with suitable sea experience to qualify as submariners to relieve crew shortfalls.

AIR DEFENCE IN MARITIME AREAS AND NORTHERN AUSTRALIA

5.37 Aircraft with long-range precision weapons could cause significant damage to important Australian assets in our sea and air approaches and on our territory. Thus, the Australian Defence Force maintains a capacity to intercept and defeat hostile aircraft and missiles. A timely and effective response to air threats requires surveillance, command and control and response capabilities, integrated into a coordinated total air defence system.

5.38 Australia's three squadrons of F/A-18 fighter aircraft provide our primary air defence response. Their effectiveness in a conflict would be enhanced by forward basing to Darwin and one or more of the unmanned air bases in northern Australia, and by the availability of aerial refuelling aircraft. The Government will commence a program this decade to upgrade the capability of the F/A-18 fleet. This program will ensure that new sensor, electronic counter-measures and weapon systems are compatible and fully integrated with the F/A-18's current avionics, weapons and sensor suite, and will be managed to enable the aircraft to remain fully effective until their replacement around 2015. Early upgrade of the aircraft's radar is planned, with precise timing influenced by the plans for upgrades by other users such as the United States and Canada.

5.39 Ground-based air defence missiles such as RBS-70 and Rapier provide a limited capacity for point defence of selected vital assets. Longer term developments in precision-guided munitions and ground-based surface-to-air missile defences are being monitored to ensure that our point air defence capacity remains viable, particularly when the existing Rapier and RBS-70 systems reach obsolescence in about 2000 and 2005 respectively. In addition, options for mobile ground-based area air defence missiles and their associated integrated sensor and command and control systems will also be monitored.

5.40 Hostile aircraft with beyond-visual-range precision-guided missiles pose a very high risk to ships. Our surface combatants are fitted with a range of anti-missile defence systems such as the close-in weapons system, and SEA SPARROW and STANDARD missiles which can destroy incoming missiles and, in some circumstances, the launch aircraft. Australia is involved in a program to develop an upgraded SEA SPARROW system, and we will look at options for retaining or replacing the STANDARD missile system in order to maintain an area air defence capacity on the FFG frigates through to their end of life. The NULKA decoy system will be installed in a number of ships.

5.41 Air Force's Macchi MB326H lead-in fighters which provide essential introductory training for the crews of both fighter and strike aircraft will be replaced by 2000 as they reach their airframe life. Industry has been invited to register interest in tendering for replacement options. The Government will consider acquiring as a new lead-in fighter an aircraft which would contribute to other defence operational and training tasks, such as close air support for the land force and air defence training for the fleet. This will reduce the burden on the airframe fatigue life of the F/A-18 aircraft and release them for more demanding tasks.

5.42 The surveillance and command and control elements of our air defence system will be enhanced with the planned acquisition of the airborne early warning and control capability. In addition, facilities and equipment for an air defence control and reporting unit are being established at the Tindal Air Force Base. Up to six new mobile ground air defence radars will also be acquired.

LAND OPERATIONS

5.43 The Australian Defence Force possesses a substantial capacity to prevent large hostile forces from landing and being sustained on our territory. However, smaller groups could penetrate our shores anywhere across the north. It is not practicable to have a continuous land force presence everywhere. Australian Defence Force operations in northern Australia thus have several dimensions: surveillance and reconnaissance, protection of assets and infrastructure, and interception and defeat of hostile forces.

5.44 The Australian Defence Force's capability to intercept and defeat small, widely dispersed land force groups is based on close coordination of joint maritime and air forces operating in our sea and air approaches, and joint air and land forces operating on or over our territory. Land force surveillance and reconnaissance is provided by a combination of Regular and Reserve units. Mobile units deployed from forward bases by fixed and rotary wing aircraft or ground transport vehicles would combine with aviation and other components of the land force as well as air assets to provide the necessary response.

5.45 Effective protection of civil and defence assets would be a priority in conflict, but it would be impossible to provide close protection for all potential targets. Even if the threat to such assets was perceived to be relatively low, the Australian Defence Force would need to maintain a visible presence in northern Australia in order to provide the local community with confidence, encourage 'business as usual' and coordinate with the activities of the civil authorities and the community. The Australian Defence Force capability to protect vital assets on the Australian mainland is based on a joint force, including land and air components. In the early stages of a conflict, Regular infantry units and airfield defence guards would protect vital assets, assisted by air patrols and ground reconnaissance of likely approach routes. If circumstances warranted 'call-out', the Reserve infantry brigades would boost significantly the number of troops available, freeing some Regular units for response and other tasks.

5.46 In developing a land force which can contribute effectively and appropriately to these important roles and tasks, a balance must be established between Regular and Reserve elements, and between combat and combat support units. This balance will vary over time in response to changing technology and to readiness considerations.

5.47 Central to considerations of balance is the strength of the infantry component of the land force, and in particular the balance between Regular and Reserve infantry units. Army at present maintains 21 infantry battalions in total: 4 Regular, 3 Ready Reserve and 14 General Reserve. These provide troops at readiness levels varying from less than a month in the case of the Sydney-based Parachute Battalion and the Townsville-based Rapid Deployment Force, to about a

year in the case of the least prepared Reserve battalions. In the event of warning of the emergence of a threat, the readiness levels of all units could be raised appropriately.

5.48 With the introduction of the Ready Reserve scheme and a more clearly defined role for the General Reserve as part of the Total Force, existing infantry readiness levels are now considered broadly sufficient for the defence of Australia in our present circumstances. The exception to this could be in the period of any conflict prior to call-out and preparation of the Reserve, when considerable demands would be placed on our four Regular battalions to protect important assets across a vast area. The availability of a fifth infantry battalion would greatly enhance our capacity for initial land operations in the defence of Australia.

5.49 The scope of savings and efficiencies programmed by Army through a range of initiatives will free up the personnel and operating resources necessary to raise a fifth Regular battalion. The battalion, which will include one Reserve company, will be raised over the next three to four years as the resources become available. An additional infantry battalion maintained for the defence of Australia will improve the versatility of the Force, provide greater flexibility for contributions to UN and other peace operations, and contribute to combined exercises in the region.

5.50 A review of the land force, to be completed by late 1995, will establish what further adjustment to its structure is necessary. This review will address a range of issues including the number and readiness of infantry units, the benefits of additional ground reconnaissance units, the balance between Regular and Reserve elements of the force and the resource implications of any options for further change.

5.51 The Ready Reserve scheme, which is a specific component of the wider Reserve force, was introduced as a first step in matching the Reserve structure better to the demands of short-warning conflict. It has elements in all three Services, but its major component is the infantry brigade in Brisbane. The scheme has attracted many very capable people to the Australian Defence Force and provides units at relatively high readiness. After three years of development it is appropriate now to review progress. A review of the Ready Reserve program will be initiated.

5.52 The structure and evolving role of Reserves in the Total Force is discussed more fully in Chapter Seven.

5.53 In addition to the structural changes planned for the land force, the Australian Defence Force's capacity to defeat incursions will also be developed to enhance the mobility of surveillance, reconnaissance and response forces through upgrades and acquisition of aircraft and vehicles. Emphasis will also be given to ensuring the provision of firepower, including from both fixed wing aircraft and helicopters.

5.54 The Kiowa helicopter fleet will be replaced by a new aerial surveillance, reconnaissance and fire support capability for the land force toward the end of this decade. The new capability may involve a combination of fixed wing aircraft, helicopters with single or multi-role functions and unmanned aerial vehicles.

5.55 Four D-model Chinook helicopters have been acquired to provide a capacity for the tactical transport of fuel, supplies and equipment, the evacuation of casualties and the movement of troops in platoon groups. The Government will consider acquiring more utility helicopters, some equipped for operations in a maritime environment, to provide for air transport of an additional infantry company.

5.56 The Caribou tactical transport aircraft provides the Australian Defence Force with important access to poorly prepared landing strips, including in wet weather conditions, in areas where runways capable of supporting C130 aircraft are not available. The Caribou has been in service for several decades and is becoming expensive to maintain. Options to replace the capability provided by the Caribou are being reviewed and include both fixed and rotary wing aircraft. The timing of the replacement will depend on progress with the approved replacement of the C130E fleet and introduction of the new Chinook helicopters.

5.57 New land force vehicles will be acquired to give greater mobility and better personnel protection. The fleet of M113 tracked armoured vehicles will also undergo a limited modification program to overcome existing deficiencies and extend their life well into the next century. New light reconnaissance vehicles based on commercial standards will be acquired this decade, and a lightly armoured transport vehicle will be acquired to provide mobility to infantry brigades. The present fleet of trucks will be replaced early in the next decade. These projects will be managed to provide opportunities for Australian industry and reduce subsequent through-life costs, including adopting civil standards to the maximum extent practicable.

5.58 Night vision devices are already available in the Australian Defence Force. Additional devices will be acquired to enable more night operations. The capability will be enhanced further through acquisition of Global Positioning Satellite navigation systems for use by mobile elements of the Australian Defence Force. Acquisition of unattended ground sensors and ground surveillance radars to detect and monitor small hostile groups is also planned.

5.59 Additional Australian-manufactured single channel radios will be acquired to complement existing RAVEN radios. A field trunk communications network being acquired will use commercial satellites as well as microwave and high frequency transmissions.

5.60 Infantry and reconnaissance units in Army can be supported by considerable firepower through a combination of artillery, helicopters, tanks and other armoured vehicles. Air assets such as the F111 strike aircraft and the F/A-18 fighter can provide additional support if necessary. Surface ships also can provide naval gunfire support in coastal areas. Defence will continue to review fire support options as existing assets approach the end of their economic lives.

5.61 Tanks provide a base from which to adapt the force to meet the demands of major conflict. Their mobility, protection and firepower would also enable them to contribute significantly in short-warning conflict. The present fleet of 103 Leopard tanks is adequate for these purposes, and will be supported until at least 2010. A proposal to purchase surplus German Leopard tanks to replace the older Australian Leopards will not be taken up as it is not cost effective. When necessary, the Leopard tanks will be replaced by smaller tanks suited to our northern environment and fitted with a state-of-the-art combat system.

5.62 Recognising that technology is increasing the demands which could be placed on soldiers, Defence has initiated a project to identify and plan developments which will ensure our soldiers continue to be equipped to meet emerging challenges. The project will focus on increasing the endurance, self-protection, communications and geographic awareness of the individual soldier by exploiting and integrating leading-edge technology.

STRATEGIC STRIKE

5.63 The Australian Defence Force retains a capacity to undertake strategic strike operations against the interests of an adversary. This includes an ability to strike ships, land-based forces and infrastructure.

5.64 Against an adversary's infrastructure, special forces could be deployed, or F111 or F/A-18 aircraft could strike specific targets from the air with precision munitions, by day or night and in all weather conditions.

5.65 Our Collins Class submarines provide a very significant capacity to strike ships using a variety of sensors to locate targets and a combination of missiles and torpedoes. Even without launching an attack, submarines by their very nature would create significant uncertainty for an adversary and force precautionary defensive measures. They are therefore an important means of discouraging attacks on Australia. Attacks on ships could also be undertaken using precision-guided weapons launched from our F111, F/A-18 or P3C aircraft or ships.

5.66 Advances in air defence technology, sensors and weapons increase the risks to air assets, so further development of the Australian Defence Force's air strike capability will ensure our aircraft retain adequate self-protection systems and a capacity to deliver weapons precisely at sufficient range to avoid defensive systems.

SUPPORT OF THE FORCE

5.67 Successful defence relies not just on the possession of military capabilities, but also on the ability of the nation as a whole to sustain these capabilities in peace and during a conflict.

5.68 Although the Australian Defence Force requires combat capabilities necessary for the defence of Australia, complete self-sufficiency in the logistics and other support of the Force is neither practicable nor affordable. Indeed, to seek such self-sufficiency would be so demanding of resources that it would constrain significantly the range of combat capabilities we could afford to maintain, and so weaken our overall defence effort. Careful judgements are made on the balance between investment in combat capabilities and investment in their support, in order to achieve an optimum combination of combat strength and supportability.

5.69 Defence pays careful attention to ensuring reliability of supply, seeking supply from Australian sources where practicable. Where it is necessary to use overseas sources, it seeks multiple suppliers and holds appropriate stocks. Standing agreements with allies and other countries and comprehensive planning are vital

elements of this support, as is the priority the Government gives to a national capacity for the maintenance, repair and modification of defence equipment (see Chapters Eleven and Twelve).

5.70 Judgements about how to provide support for combat forces are continually refined as strategic developments occur. In general, we will seek support from commercial sources in our national support base, although the Australian Defence Force will continue to possess those logistic support capabilities required in operations.

Transport

5.71 Australia has many civil transport assets which could assist the movement of forces and supplies, so the Defence Organisation gives high priority to developing mechanisms for their use during conflict. As civil transport may not, however, be able in all circumstances to meet all defence demands, the Australian Defence Force maintains its own capability to provide for certain essential transport needs. This involves transport aircraft such as the C130 fleet, as well as a large number of trucks and amphibious and afloat support ships.

5.72 The large area, hostile terrain and limited infrastructure of northern Australia make air transport essential, both to support deployed land forces and to support bases in remote areas. Australia's fleet of commercial aircraft has some limitations in terms of its capacity to carry large items of equipment and to operate into poorly prepared air strips. We will therefore continue to give high priority to maintaining a capable air transport fleet in the Australian Defence Force. The Government has already approved the replacement of the twelve ageing C130E strategic transport aircraft with new C130 aircraft, and will consider options to retain the airlift capability provided by the twelve C130H aircraft.

Facilities and Infrastructure

5.73 The availability of facilities and infrastructure such as bases, training areas, airfields and roads contributes significantly to defence force effectiveness. The Government's program of enhancing such facilities in the west and north of Australia is nearing completion.

5.74 Relocation of several land force units to the north of Australia will be completed during this decade. They will occupy newly constructed facilities near Darwin. The 2nd Cavalry Regiment, which is already established near Darwin, will be joined by the end of the decade by elements of the 1st Armoured Regiment, the 5th/7th Battalion Royal Australian Regiment and the remaining elements of 1st

Brigade. Furthermore, a new field training area will be acquired in northern Australia.

5.75 The chain of northern air bases will be completed later this decade when work on the Scherger Air Force Base on Cape York Peninsula is completed. Together with aerial refuelling, these bases will allow Australian Defence Force aircraft to operate at long ranges and to remain on task for extended periods over a much larger portion of northern Australia and its sea and air approaches than was hitherto possible.

5.76 We are developing facilities at HMAS Stirling in Western Australia to accommodate all of the submarine force, about half of the surface force and associated naval helicopters. Naval facilities in Darwin will also be upgraded as necessary to accommodate new patrol vessels and hydrographic survey ships.

5.77 While commercial firms undertake the construction of permanent facilities, the Australian Defence Force maintains some in-house capacity with its land force engineer units to provide construction and engineering support in operational areas.

Logistic Support Capabilities

5.78 The ability to keep defence equipment operational throughout a conflict is fundamental to Australian Defence Force effectiveness. As Defence spends more than $1 billion annually on equipment replenishment, repair and overhaul, it is constantly seeking opportunities for efficiencies. Civilian support is used wherever it is cost effective, but the Australian Defence Force must retain a capacity to provide for essential repair and maintenance and the supply of spares and consumables in combat areas.

5.79 The introduction of supply system and aircraft maintenance information management systems will improve the joint management of logistic support functions. The rationalisation of warehousing arrangements will continue under the Defence Logistics Redevelopment Project, involving the establishment of a central storage and distribution facility at Moorebank in Sydney and leading to substantial savings and greater effectiveness in the supply system.

5.80 Modern technology will increasingly be introduced in logistic organisations to reduce support costs. We are acquiring, for example, automatic test equipment, module replacement and increasingly reliable systems, to reduce either the cost of support or at least demands in operational areas to support much of the Australian Defence Force's equipment. The implementation of an increased level of joint logistics support capabilities and commonality of systems, procedures and components between the three Services will improve the efficiency of support.

Other Forms of Support

5.81 The Defence Organisation relies on a range of other forms of support both in peace and in conflict. For example, Defence must protect its facilities and information from theft or criminal damage. Commercial security firms provide facilities security on a number of Defence bases, while information security is undertaken in-house. This second area will face new challenges as information systems continue to proliferate and advance and communications systems become more complex.

5.82 Catering, cleaning and other functions must also be undertaken at fixed Defence bases, and in the field. Often commercial contractors perform these functions, although some Australian Defence Force personnel continue to provide catering and other essential support on ships and in support of deployable units. Defence also maintains a limited number of military police, firefighting and air traffic control services, and administrative support functions to meet the essential needs of operational units when deployed to a combat area.

5.83 Defence must ensure that its people are fully fit for operational duties, and can be treated promptly if they are wounded or injured. This is not only an essential responsibility to its people, but is also essential to maintain the effectiveness of our combat capability. As there is little demand in peace for certain medical skills which are very important in conflict, the Australian Defence Force relies on the availability of Reserve health specialists for combat support in a number of areas. Army maintains a field hospital, and medical facilities will be installed on the recently acquired training and helicopter support ships.

RESOURCES

5.84 The capability developments outlined in this Chapter will ensure we can provide for the defence of Australia in the more demanding strategic environment of the future. Achieving our priorities will present many challenges. To meet these, it will be important that we continue to provide resources for investment in future capabilities. The nature of this investment will shift in the future from ships, which were the focus in recent years, to aircraft.

5.86 Despite the continuing emphasis on equipment investment, the more complex Defence Organisation of the future will need increasingly skilled people, so we must provide sufficient resources to fund our most important asset - our people.

CHAPTER SIX

DEFENCE PERSONNEL

6.1 The Australian Defence Force's tradition of military excellence is based on the professionalism and competence of its people, both at home and abroad. Recent deployments in the Gulf War, Namibia, Cambodia, Somalia, Rwanda and elsewhere have reinforced this.

6.2 In the face of a wide range of social, demographic, technological, industrial, cultural and legal changes in Australia, recruiting and retaining people with the skills, professionalism and discipline required by the Australian Defence Force is and will be challenging. Our response to these challenges covers a broad front. Existing initiatives include improved housing, family support programs, reviews by the Defence Force Remuneration Tribunal, national accreditation of military training and early determination of deployment allowances.

6.3 People are fundamental to all our defence capabilities. For the Defence Organisation to respond to more demanding strategic circumstances, personnel policies are directed at ensuring maximum return from uniformed personnel and welding all personnel, military and civilian, full-time and part-time, into a single team, Defence's one organisation. Fair and reasonable pay and conditions will be maintained for all staff, and the special features of military service will be recognised. High quality, cost-effective training will continue to be provided to enhance staff development and practice. Personnel management will be based on merit and equal employment opportunity, and demand exemplary standards of performance and conduct.

THE SPECIAL NATURE OF MILITARY SERVICE

6.4 Defence Force service imposes special demands and impacts on families. Australian Defence Force personnel often work under arduous physical conditions for extended periods. Both on and off duty, they are subject to strict disciplinary requirements, backed by the punishment provisions of the Defence Force Disciplinary Act. They must render service as ordered, and the opportunity to take into account personal preference or convenience is less than might be found in most other forms of employment. They must also maintain high standards of health and physical fitness so that they can withstand the physical and mental stresses associated with armed conflict, and are subject to compulsory early retirement well before the age of sixty five.

6.5 In addition, Australian Defence Force personnel can be relocated at short notice, and their employment often involves frequent and extended absences from home. In a society that emphasises the freedom of the individual, these restrictions contrast sharply with the personal liberties normally enjoyed by most Australians.

6.6 Consequently, the Government will provide Australian Defence Force personnel with a package of pay, conditions of service and other benefits, including housing, designed specifically around the special nature of military service. The elements of this are not fringe benefits but prerequisites for members to meet the demands of military service.

ADJUSTING THE CULTURE

6.7 Our approach to the use of Service personnel is adapting in response to change in both our society and our strategic circumstances. This involves significant organisational and cultural change to obtain the most cost-effective output from our limited military and civilian personnel resources.

Restructuring

6.8 A program of restructuring in the Defence Organisation has been initiated in response to the changing demands of our national defence effort. This program will continue, with the following key objectives:

- developing Defence as one organisation, with civilian and military personnel working closely together, and with military personnel in the Australian Defence Force working cohesively as a Total Force;
- maximising combat capabilities by reducing the numbers of Service personnel involved in administrative and base support functions and by using commercial and civilian support and maintenance where operationally feasible, practicable and cost effective;
- meeting the strategic focus on northern and western operations by extending western basing for Navy and northern basing for more Army units, and enhancing Air Force's forward deployment capacity; and
- making greater use of Reserves, including the Ready Reserve, as key elements of the Total Force.

Defence Personnel Numbers

6.9 Since the **Force Structure Review, 1991**, and as shown in Table 6.1, Defence civilian personnel numbers have been reduced by some 16 per cent, while full-time military personnel numbers have been reduced by about 15 per cent. These reductions have been the result of a number of factors:

- the savings resulting from the **Force Structure Review, 1991** and related initiatives;
- reductions to overcome structural imbalances in rank and skill levels due to lower than expected separation rates, and to offset increases in per capita salary costs;
- recruitment shortfalls in specific employment and skills categories;
- reduced recruitment levels to assist in achieving longer term stable personnel levels as soon as possible; and
- achievement of additional savings from Tier Two of the Commercial Support Program.

Table 6-1: Number of Permanent Personnel in the Defence Organisation

Year at 30 June	Navy	Army	Air Force	Total	Civilian
1991	15894	31143	22121	69158	25006
1992	15395	30157	21502	67054	23832
1993	15041	28054	19345	62440	22105
1994	14776	26347	17807	58930	20966

6.10 Since 1989, the number of civilian personnel in the Senior Executive Service in the Defence Organisation has been reduced by some 25 per cent, while the number of senior military officers of colonel equivalent rank or higher has also been reduced.

One Organisation

6.11 Defence's one organisation approach emphasises the need for close integration of all Australian Defence Force and Defence civilian personnel employed in policy, administrative and support functions. It increases efficiency by eliminating duplicated effort caused by parallel Service and civilian structures. Although extensive restructuring and productivity increases have been achieved, scope for further progress remains. We will continue to develop the structure of the Defence Organisation to improve efficiency and effectiveness, including through integrating more support functions and creating a closer understanding between the various elements of the organisation.

Commercial Support

6.12 The Defence Organisation now draws widely on the skills of the Australian community for support and better integrates its activities into those of the community. The maintenance of our combat capabilities has been assisted by the Commercial Support Program by testing whether better value for money can be obtained by contracting out many functions which do not require military skills or need to be performed within the Department of Defence (see Chapter Eleven). The shift of support services to contractors, together with more complex defence technology, is also leading to an increase in per capita labour costs in the Australian Defence Force, as well as an increase in the proportion of more senior staff. While commercial support offers opportunities for cost savings in some areas, and establishes closer links between Defence and the community, it does not replace the need for military personnel in operational functions to meet Australia's essential military capability needs.

6.13 To achieve maximum defence effort, we need to make careful judgements about functions performed by military personnel, Defence civilians and industry. It is no longer appropriate to measure defence capability simply by the number of personnel in uniform. We will continue to seek opportunities for wider commercial support so that we can enhance operational capabilities within available resources. At the same time, we need to be conscious of the requirements for combat deployability and readiness, employment skills, relative costs and the need for relief from duty in remote locations.

The Total Force

6.14 The Australian Defence Force will use its skilled military personnel efficiently, developing a Total Force in which all elements work together in a coordinated effort under joint operational command. Given these evolving joint command arrangements the Total Force recognises that Reserves are a fundamental part of our force structure, and they are allocated specific roles in the defence of Australia. It is a flexible concept that allows the Regular-Reserve balance - and the balance between active and inactive Reserves - to be adjusted to meet changing demands.

MEETING FUTURE REQUIREMENTS

6.15 The one organisation approach, increased use of commercial support and integration of Reserves into the Total Force all improve the efficiency of the Defence Organisation and enable it to meet its responsibilities with fewer full-time personnel. Nonetheless, the Australian Defence Force remains one of Australia's largest employers, and will continue to recruit substantial numbers of full-time Service personnel to maintain the professional expertise underpinning its credibility. Highly skilled people are needed throughout the Defence Organisation. At present, there are few difficulties in attracting suitable civilian staff, but the Australian Defence Force faces competition with other employers to attract applicants with the aptitude, skills and fitness needed to meet military requirements.

6.16 Personnel policies and recruitment practices need to take into account the many social and economic factors at work to ensure that military service is recognised by job seekers as an attractive and rewarding occupation. This must be

accomplished within a framework of significant social change, and in a period when economic growth, industrial expansion and technological change are combining to create a highly competitive labour market.

Attracting the Best People

6.17 Defence recruitment is subject to demand pressures not always linked to the general state of the national labour market. Professional personnel such as engineers, pilots and telecommunications and electronics technicians are among those for whom there can be sudden, heavy national and international demands at almost any point of the business cycle. Further, the special problems associated with service in some elements of the Australian Defence Force, such as submarines, increase the difficulty of attracting enough suitable volunteers from within the Services. Finally, the increasing trend to a high technology, highly trained but numerically smaller Australian Defence Force reduces the demand for people with limited skills and education, who are most readily available because of less employer competition.

6.18 While the total strength of the Defence Organisation has reduced appreciably, the turnover of skilled personnel means that the demand for new Australian Defence Force recruits will remain high. Competition with other employers is likely to be most intense for people in the preferred 17 to 24 age group. The Australian Defence Force and the Department of Defence will continue their efforts to ensure that young Australians, including those from Aboriginal and migrant groups, are more aware of the many positive rewards of service in the Defence Organisation, and thus able to make a more informed comparison between Defence and other employers when choosing an occupation.

6.19 The Australian Services Cadet Scheme provides valuable introductory experience of Service life to many young people. Research indicates that the significant proportion of cadets who subsequently join the Australian Defence Force have lower separation and failure rates during initial training than other recruits, and a subsequent retention rate well above the Australian Defence Force average. The Government will continue to support the Cadet Scheme.

6.20 The Australian Defence Force is also developing a number of other approaches that permit greater flexibility in meeting its anticipated recruiting needs. These are directed mainly to widening the scope for lateral recruitment of personnel with relevant skills and qualifications gained through civilian training and employment. Members of the Reserves (both active and inactive) will also be encouraged to undertake varying periods of full-time service. Concurrently, options for introducing a mix of short and long fixed-term career appointments will be examined. Direct recruiting from the graduate stream of universities and TAFE

colleges will continue, and general Defence recruitment will be more focused. Specific attention will be given to high school students in Years 7 to 10 to encourage them to consider a Defence career and to continue studies in subjects needed to qualify for Defence employment.

Training and Developing Personnel

6.21 The quality and depth of Australian Defence Force training is a significant recruiting incentive, and the Defence Force will always provide basic and advanced training covering a wide range of occupational skills. To maintain this extensive training and development capacity, the Defence Force will continue to rationalise training common to all three Services and to out-source non-military skills training to civilian institutions wherever practicable and cost effective.

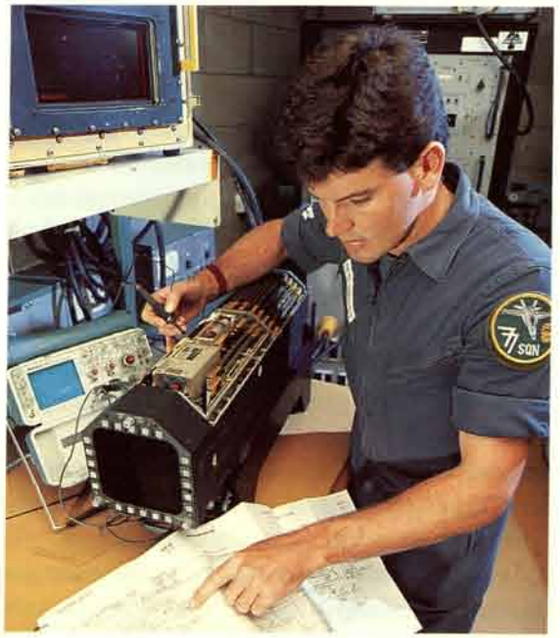
6.22 The widespread and increasing use of simulation technologies offers new opportunities for efficient, effective, and lower cost alternatives to live training. New information systems technologies, distance learning techniques and multi-media interactive systems provide better and more comprehensive training, particularly in remote locations. This will yield significant benefits by reducing the time personnel spend at training schools far from their normal posting locality.

6.23 Also, the Australian Defence Force will continue to seek civil accreditation for its education and training programs, and generally adopt standards consistent with those applied elsewhere in the Australian community. This helps Service people to enter civilian employment when they leave the Australian Defence Force, and increases the skills base of the Australian community. Conversely, the Defence Force is also broadening its recognition of civil qualifications. This increases the scope for lateral recruitment from the community.

6.24 Australian Defence Force officer development requires considerable investment over a long period. Officers need at least fifteen years of commissioned service to develop the necessary combination of professional knowledge, experience and skill to command a modern frigate, infantry battalion or fighter squadron. During this time, they attend a succession of increasingly complex and demanding training courses, and are given appointments of progressively higher responsibility.

6.25 Officers are also required to further their education as they progress in rank. This process starts during pre-commissioning training at the Australian Defence Force Academy and the single-Service officer training establishments. It continues at single-Service staff colleges, then the Joint Services Staff College and finally the new Australian College of Defence and Strategic Studies. Only those officers selected on the basis of regular appraisal reports as having the most potential to succeed attend the next, higher level. Officers are also encouraged and assisted to gain relevant post-graduate qualifications.

6.26 Senior non-commissioned officers also need time and effort to develop. Advanced skills training is given only to those thought suitable to perform more complex tasks. This contrasts with older training methods which tended to impart lengthy training immediately after entry. This more sequential, job-specific training is complemented by successive levels of management and leadership training to prepare non-commissioned officers for increased leadership and administrative responsibilities as they progress in rank.



6.27 The professional approach to training in the Australian Defence Force also applies to Defence civilian staff. Staff mobility is encouraged to provide breadth of experience, and a full range of training and development opportunities is provided. We will emphasise civilian attendance on Service training courses and reciprocal arrangements for Defence Force members on civilian courses.

RESPONDING TO SOCIAL CHANGE

6.28 Significant changes in organisational culture will occur as Defence adapts its personnel management practices and administrative procedures to keep pace with evolving social standards and expectations. The challenge for the Defence Organisation is to accomplish these changes in a balanced way, recognising so far as its Service personnel are concerned that military service retains many special features that need particular consideration.

6.29 We will need to offer competitive pay and conditions of employment to enable Defence to compete for both trained personnel and suitable recruits. Just as importantly, Defence aims to be widely recognised as a fair employer, committed to the well-being of its personnel, dealing with them on the basis of merit and equal employment opportunity, and meeting their reasonable expectations.

6.30 The Australian Defence Force must face the prospect of high separation rates. Many young Australians will not remain with the one employer throughout their working lives; increasingly, they see changing employment as broadening their knowledge, experience and opportunities. Although in some career streams Australian Defence Force employment offers variation, change and the chance to develop multiple skills, in other cases such opportunities are limited. Thus, many Defence Force personnel will seek other employment after about six years' service, and few may serve beyond fifteen years. The attractiveness of service in the Defence Force increasingly will be affected by the short-term expectations of individual members.

6.31 In these conditions, the Defence Organisation must ensure the talents of all its people are best used. Employment and advancement therefore will continue to be determined strictly on the basis of the ability of individuals to perform the work required.

Women in the Australian Defence Force

6.32 Since December 1992, women have been eligible to compete for about 99 per cent of Navy and Air Force positions and 67 per cent of Army positions. Apart from some minor areas related to specific occupational health concerns, the only categories of employment not open to women are mine clearance diver in the Navy, the combat arms (infantry, armour, artillery and combat engineers) in the Army and airfield defence guards in the Air Force.

6.33 The number of women in the Australian Defence Force has increased by over 1,000 since 1987. Women now occupy over 12 per cent of all Regular Service positions. This percentage will grow steadily.

6.34 Although employment opportunities for women now are much more comprehensive, recent research indicates a significant difference in long term career intentions, with some 50 per cent of women, compared with only 13 per cent of men, expressing the intention to separate from the Australian Defence Force before completing twenty years' service. Although the twenty year point will have less significance in future following the introduction of new military superannuation arrangements, the Defence Organisation still must gain maximum benefit in length of service from all personnel for its investment in training and education.

6.35 We have recently introduced a number of initiatives to ensure that women in the Australian Defence Force achieve their maximum potential. These include:

- establishing a Defence Advisory Forum on Discrimination, comprising senior executives from the corporate sector, tertiary institutions and the Public Service, to advise on appropriate strategies to deal with discrimination issues within the Defence Organisation;
- initiating a study to identify cultural and institutional barriers which impede women achieving senior positions in the Defence Force;
- studying further the reasons why more women in the Defence Force do not seek a long-term military career; and
- introducing a set of performance indicators to monitor achievement of greater responsibility by women in the Defence Force.

6.36 For civilian staff, Defence will continue to promote the effective employment of women through better focused equal employment opportunity policies and practices, including consultative processes.

Equality in the Workplace

6.37 The Government is committed to ensuring a working environment which emphasises equality of opportunity and freedom from discrimination or harassment. Unfair behaviour will not be tolerated in the Defence working environment.

6.38 The Government supports the findings of the Senate Standing Committee on Foreign Affairs, Defence and Trade in its recent report on Sexual Harassment in the Australian Defence Force and the substance of the Committee's recommendations. These include disseminating widely comprehensive guidance and ensuring all officers with command responsibilities receive training in gender awareness and prevention of unacceptable sexual behaviour.

Pay and Allowances

6.39 The Government will ensure all staff in the Defence Organisation are remunerated fairly and equitably, taking account of Government employment policies and trends in the labour market and society generally. Remuneration for both military and civilian personnel recently increased with productivity improvements. These increases may provide incentives to develop the capacity for further such increases.

6.40 The Defence Force Remuneration Tribunal fixes military pay, and allowances paid as salary. The Tribunal will continue as an independent body in recognition of the special features of military service.

6.41 The Government must provide for the welfare of Australian Defence Force personnel involved in UN and other multinational force deployments overseas. In particular, allowances paid in recognition of the unusual hazards, including those to health, will not be regarded as normal income for taxation and social welfare purposes.

6.42 Allowances, subsidies and special conditions of service are available to Australian Defence Force personnel in various circumstances, such as when they are involved in peacekeeping commitments or situations of particular personal risk or inconvenience. Such allowances and conditions of service compensate military members for the special nature of their Defence Force employment.

CONDITIONS OF SERVICE

6.43 The strong *esprit de corps* of Australian Defence Force units remains a significant factor in their successful performance. This in turn depends heavily on maintaining the morale of the individual. Conditions of service for the Defence Force are developed with this in mind and take into account issues affecting the lifestyle, personal relationships and family responsibilities of all Service personnel, including Reserves.

Social and Family Issues

6.44 To ensure the Australian Defence Force is well prepared to operate in remote areas of the country, a number of elements are progressively moving to the north and west. More Navy ships are home-porting in Western Australia, more Army units are moving to bases in the Northern Territory and the frequency and size of Air Force forward deployments is also increasing. The introduction of large numbers of Defence personnel and their families into relatively small and isolated communities can create a significant social impact. Moreover, such postings can involve marked personal disadvantages. The often harsh climate, limited educational opportunities for children, reduced employment opportunities, limited medical facilities and isolation from the direct support of extended family and friends all pose significant hardships for many Defence personnel. Special attention is therefore being given to the need for flexible support policies for Service personnel and their families.

6.45 More Defence personnel are now single parents; more Service personnel have partners who are also serving; and like others in the general community, a significant proportion of Defence families depend on two incomes. As more Australian Defence Force elements move to the north and west, these factors impact increasingly on Defence personnel management and retention.

6.46 The Government recognises how important the family is in contributing to overall career satisfaction. Accordingly, it emphasises family support measures, providing family support services to help dependants manage problems associated with frequent and sometimes long separations. The Government funds community-based family support projects, provides work based child care facilities and operates an 008 information hot-line.

Housing and Accommodation

6.47 Both families and single personnel need assurance of an acceptable standard of housing wherever they are obliged to live. The Government provides accommodation for Defence members in line with community standards and will continue to subsidise rents. The Defence Housing Authority effectively provides suitable housing for members with families.

6.48 Members of the Australian Defence Force are encouraged to purchase their own homes through the Defence Home Owner Scheme and the Home Purchase and Sale Expenses Allowance. In more remote areas and in comparatively small northern communities, suitable accommodation is not available for sale or rent. In these circumstances, Defence must provide facilities for both accompanied and unaccompanied personnel. Where older accommodation exists, it is being upgraded or replaced. This applies also to single members' messing facilities in Service establishments.

Reducing the Problems of Relocation

6.49 Service personnel are likely to be relocated many times during their employment and this can cause significant difficulties for them and their families. Partner employment is a particular problem associated with Defence relocations. Spouses and partners often cannot regain suitable employment. This leads to personal frustration, interrupted career development and financial hardship for families depending on two incomes.

6.50 The personal relationships of children suffer from frequent relocations, and these can be exacerbated by the difficulties of settling into an unfamiliar program of study and the need to join classes of a different age group. The Government is

working toward the adoption of standard school class nomenclature and starting ages, and gives high priority to achieving a standard national curriculum for all levels of education. It will continue to urge the States to assist members of the Australian Defence Force (and all Australians who relocate between States) to ensure for their children the standard of education available to most other children.

6.51 These difficulties can be partially alleviated by greater posting stability, but operational and training demands and the increasingly wide geographical dispersion of the Australian Defence Force make this difficult. In particular, Service officers normally require a range of appointments for effective career development, and this involves a variety of employment locations. The Government recognises these complications, but considers improved personnel management practices could provide a greater level of locational stability. Accordingly, most Service appointments should be for a minimum of three years, and members should receive consecutive postings in the same geographic locality as far as practicable. A member's preferences regarding the locality of postings will be met where this is consistent with the interests of the Defence Force.

THE LONGER TERM CHALLENGE

6.52 As differences in military technologies narrow, the relative effectiveness of our capabilities will depend increasingly on the human factor - better commanders, higher levels of skill, more individual initiative and more effective teamwork.

6.53 To maintain the capability priorities set out earlier, we need to sustain our investment program at the highest practicable levels. At the same time operating costs will rise, not only to meet increased levels of activity and exercising in the region but also to hone individual and collective skills. The key personnel management and leadership challenge will be to recruit and retain Defence Force personnel in the numbers and with the skills and experience required for the defence capabilities we need. This challenge will be exacerbated by declining community interest in the ethos of military service. Already, only 8 per cent of school leavers even consider joining the Defence Force as a desirable occupation.

6.54 It is expected that per capita costs of Service personnel will rise faster than those of their civilian equivalents. Costs will increase as more of the Defence Force moves to the north. With support functions being transferred to the civil sector, the personnel profile of the Australian Defence Force will change. A number of labour-intensive functions will be performed by contract, so the number of less skilled Defence Force jobs will fall. Technology brings with it higher training costs and produces a range of skills readily marketable in industry. There is also

likely to be a high throughput in expensive training as the Services find it increasingly difficult to compete with the locational stability offered by civilian employment or the flexibility of remuneration available in the private sector.

6.55 So far, Defence has directed the savings made in efficiency gains to its investment program. Increases in remuneration of staff were met by supplementation of Defence appropriations. This allowed us to upgrade or acquire platforms and systems without real growth in the Defence budget. Under present industrial relations policies, the first call on efficiency gains is for remuneration. As the main efficiency gains are made from undertaking tasks with fewer people, the inevitable trend is toward a smaller, more highly paid force. There are limits, however, to how far this can be taken before the Force becomes too small to sustain the required diversity and depth of skills within viable career structures.

6.56 Decisions of the Defence Force Remuneration Tribunal impact directly on the Defence Organisation. The Tribunal must make decisions on industrial relations principles rather than capability requirements, yet the Defence budget is no longer supplemented for increases in personnel costs. The result is that every Tribunal decision has implications for our defence capabilities.

6.57 Difficulties in recruiting are reflected in increased recruiting costs. It will be increasingly difficult to attract and retain the skilled people needed in a modern, effective defence force as society attaches less importance to concepts of service; as several changes of career during a working life become common practice; as expectations of living and leisure standards grow; and as other outlets for adventure become available. The relative sense of security enjoyed by most Australians heightens this recruiting challenge.

6.58 Changes in the way in which armed forces operate and are organised and managed inevitably impact on the ability of the Australian Defence Force to recruit and retain personnel with the attributes and skills it needs. The traditions of the three Services are challenged by the necessary emphasis on joint command and operations, the closer integration of Service and civilian personnel, and the need for economies. Reductions in the size of the Force, necessary to achieve better cost effectiveness, have also tended to diminish career prospects in some areas. Furthermore, the move toward higher technology systems tends to enhance the prominence of technologists at the expense of warriors. These changes are all necessary to the continuing modernisation of the Australian Defence Force, but they have to be managed in ways that retain the essential elements of that ethos which enables Service personnel to accept the risks of combat.

6.59 At the same time, the Defence Force is under pressure to meet community expectations about personal freedom and equality of opportunity. This poses particular challenges for traditionally organised and disciplined Services, but these

expectations must be accommodated as the Defence Force cannot be at odds with the community.

6.60 To meet these challenges the Defence Force must move closer to the wider community. The Commercial Support Program should be regarded not only as an efficiency measure but also as part of a wider strategy in which more of the community becomes involved in ensuring the security of the nation. Over time, this will increase community understanding of defence, increase respect for the Defence Force and create a greater recognition of the career opportunities that military service provides.

6.61 Studies are underway to determine the number of personnel required in uniform. These studies should establish within the capabilities required for the defence of Australia those functions which only uniformed personnel can perform. The studies will take account of the requirements of operational functions and training and development structures so that the career expectations of Service personnel can be met at the same time as the Defence Force draws maximum support from the community at large.

6.62 Recognising the importance of personnel to Defence Force capabilities, the Government has initiated a wide ranging review of the principles which underpin Australian Defence Force personnel policies and procedures. An external consultant will complete this review in 1995. The review will examine the social, economic and industrial trends influencing the development of Australian Defence Force personnel policies; report on the adequacy of the existing policy framework; assess the relevance of the major factors currently guiding personnel policy; and identify the key elements of future Australian Defence Force personnel strategies.

CHAPTER SEVEN

RESERVES

7.1 Reserves have always been an important part of Australia's defence. They have a long and proud tradition of service to the community in peace and war, and they link the Australian Defence Force and the wider Australian community. Today, Reserves represent over a third of the total personnel strength of the Australian Defence Force and as functions are redistributed this proportion will grow. Reserve elements no longer exist solely to assist rapid expansion of the permanent forces during mobilisation for war. Instead, Reserves now have specific roles in defending Australia in short-warning conflict, both as individuals and as formed units. In peace, they perform a number of essential tasks on a permanent part-time basis. They are, therefore, a fundamental part of the Total Force.

7.2 Recent legislation facilitates this new role for Reserves. Call-out is now possible in circumstances short of a declared defence emergency. To prepare Reserves for this increased responsibility, the structure of the Reserve component and their training and equipment will be improved.

7.3 Such arrangements are constrained in peace by what can be demanded of citizens who volunteer to defend Australia when needed. Part-time military service competes with civilian employment, family life and other interests. Nevertheless, training systems which make reasonable demands on time, and enable Reserves to be at the standard required for the tasks allocated to them, can and will be put in place. Furthermore, appropriate conditions of service will protect the interests of Reserve members and encourage more Australians to see service in the Reserve as worthwhile and rewarding.

RESERVES IN THE TOTAL FORCE

7.4 Australian Defence Force Reserves are part of a continuum of Defence personnel. This continuum, with commensurate conditions of service, extends from Regular or full-time members, through active Reserves with training commitments, to inactive Reserves with no training obligations. The Ready Reserve Scheme, introduced after the review of **The Defence Force and the Community** in 1990 and the **Force Structure Review** in 1991, involves one year of concentrated full-time training followed by a minimum of 50 days training in each subsequent year.

7.5 The number of personnel in each Reserve category is shown in Figure 7-1.

Figure 7-1: Number of Reserve Military Personnel at 30 June 1994

	Navy	Army	Air Force	Total
Reserves With Training Obligation				
Ready Reserve	108	2462	199	2769
General Reserves	1321	22842	1253	25416
Reserves Without Training Obligation	3528	3608	2967	10103
Total Number of Reserves	4957	28912	4419	38288
Proportion of Total Force	25.1%	52.3%	19.9%	39.4%

7.6 The terminology used to describe Reserve forces varies between the three Services. For example, at present Reserves with a training obligation are termed General Reserves in the Navy and Army, and Active Reserves in the Air Force. Reserves without a training obligation are termed Standby Reserves in Navy, Inactive Reserves in the Army and General Reserves in the Air Force. This terminology will be standardised.

7.7 Reserve personnel offer the Total Force many significant benefits. They bring to the Australian Defence Force a range of skills acquired in their day-to-day lives. Some of these skills are useful during conflict but are not maintained on a full-time basis due to a lack of demand, for example, medical and legal skills. Reserves can bring best practice civilian management, professional and trade skills to enhance Australian Defence Force processes. Where full-time activity is not needed in peace, and high readiness levels for conflict are not a concern, Reserves provide a cost-effective capability. Conversely, Reserves learn skills in the Services which often benefit the civilian workplace.

7.8 Reserve service allows Regulars leaving the Australian Defence Force to serve on a part-time basis, so the Force continues to use these skills and experience. In some cases, these skills are not available in the civilian community. This transfer of skills and experience also benefits the Reserve component and establishes linkages which strengthen the Total Force.

7.9 Defence personnel who transfer to the Inactive Reserves have no further training obligation and are unpaid unless they volunteer for duty. While skills from previous Australian Defence Force service degrade over time, the Inactive Reserve provides a cost-effective source of partly trained but experienced personnel to support the Australian Defence Force if needed. In this way they contribute to the adaptability of the Force.

7.10 Regulars leaving full-time service will be encouraged to transfer to the Reserves. The Government will examine whether establishing incentives or obligations will maximise the retention in the Reserve of these valuable people. Transfer between full-time and part-time components of the Australian Defence Force will be made easier.

EMPLOYING RESERVES

7.11 Reserves form a significant proportion of Australian Defence Force capability. For example, they provide most of our specialised surgeons, the basis for our Naval Control of Shipping capability, and the Army's Regional Force Surveillance units, which draw on the special skills of Aboriginal and Torres Strait Islander members.

7.12 As part of the Total Force, Reserves can contribute increasingly to Australia's international defence interests. Reserve call-out provisions do not require individual Reserve members to join UN peacekeeping or humanitarian relief forces. Members with the skills and military training, however, can volunteer and serve for periods of full-time duty, as some did for the Western Sahara, Cambodia and Somalia operations. The Australian Defence Force field hospital now deployed to Rwanda includes Reserve medical specialists. The Government will improve standards of Reserve training, so Reserves can participate more in UN and other multinational activities.

7.13 The Army employs Reserves differently from the other two Services. The Navy and Air Force do not generally maintain operational units of mainly Reserves. Instead, skilled Reserve personnel are integrated individually or in small numbers into full-time Regular operational and support units. The Navy and Air Force maintain only a relatively small number of active Reserves, and obtain additional volunteers from the inactive Reserve who bring skills and experience from previous Regular service. These Reserves assist the rapid increase in rates of effort required for operational deployment, and enable the expansion of intelligence, communications and headquarters staff functions for 'round-the-clock' operations. Wider use of active Reserves, both as individuals and as formed groups in the Navy and Air Force, will be encouraged.

7.14 The Army also employs individual Reserve members in this way, but it maintains formed units of mostly General Reserves. These units make up over half of the Army's combat force. The principal difference between Regular and Reserve units is in their level of experience and collective training. Therefore, on call-out, Reserve units need a period of intensive full-time collective training in accordance with their notice to move before they would be ready for their assigned mission.

Navy Reserve

7.15 The Navy Reserve comprises the Ready Reserve, the General Reserve and the Standby (or inactive) Reserve. They contribute to Navy capabilities by providing trained personnel to serve on a part-time basis. The level of contribution they make to each force element in the Navy varies. The Reserves manage Naval Control of Shipping and are involved significantly in intelligence and minesweeping, including through Reserve Mine Warfare Groups being established in several locations around Australia. In other areas where readiness requirements or a high rate of peacetime activity preclude a high level of Reserve involvement - such as in surface combatants and submarines - individual Navy Reserves provide additional capacity to Regular crews.

7.16 The Navy is improving procedures for volunteer Reserves to undertake full-time service in circumstances short of call-out. At present, Navy Standby Reserves regularly carry out Australian Defence Force duty, both part-time and temporary full-time, for up to three months each year. This increased experience provides greater flexibility in the operational employment of Reserves.

Army Reserve

7.17 The Army Reserve comprises the Ready Reserve, the General Reserve and the Inactive Reserve. Of Army's combat force, approximately 60 per cent is comprised of the first two groups. The Ready Reserve and General Reserve constitute eight brigades. Of these, two have been allocated manoeuvre roles; four have been allocated vital asset protection tasks in northern Australia; and two are designated as follow-on forces. In addition to these infantry brigades, the General Reserve provides the basis for the three Regional Force Surveillance Units in the Pilbara, the Top End and Cape York, and is responsible for ground surveillance in northern Australia. The General Reserve also provides many logistic units and a special forces commando regiment.

7.18 Inactive Reserves have no peacetime training obligations, but provide a valuable source of former Regular and Reserve personnel to expand the land force when needed.

7.19 A review of the effectiveness of the present Army structure, including Reserve components, will be completed by late 1995. Decisions made on recommendations arising from the Review will be implemented over several years. The desired outcome of the Review will be Reserve units capable of undertaking the roles and tasks assigned to them as part of the Total Force within required readiness periods. Accordingly, Reserve units are to be staffed, trained and equipped for their operational roles.

Army Reserve Recruiting and Retention

7.20 Army Reserve recruiting and retention rates affect capability and costs. High personnel turnover rates are a common problem for most volunteer service organisations, both in Australia and overseas, especially where young people are involved. Although annual separation rates in the Navy and Air Force Reserves generally remain between 5 and 10 per cent, the rate in the Army General Reserve - which has proportionally more younger people than the other two Services - is about 20 per cent. While this rate is similar to those of Army volunteer Reserves in comparable countries, an improved retention rate would reduce costs and enhance capabilities. Accordingly, action will be taken to reduce Reserve separation rates and improve the quality of recruits. Measures will include providing a suitable package of Service benefits, making clear the Government's commitment to using Reserves, and seeking an undertaking from Reserve members that they are able to fulfil their obligations on call-out. Improvements in training and assurances that assigned roles are relevant will also increase the motivation of Reserve members.

Air Force Reserve

7.21 The Air Force Reserve comprises the Ready Reserve, the Active Reserve, the Specialist Reserve and the General (or inactive) Reserve. Except for the Ready Reserve airfield defence squadron, active Reserve members generally are integrated with permanent Air Force units.

7.22 The Ready Reserve currently comprises airfield defence personnel and aircrew. The possibility of employing Reserves in other skill categories is being considered. Ready Reserve airfield defence guards are able to provide significant airfield security for Australia's northern air bases. Ready Reserve aircrew, including pilots, navigators, flight engineers and load-masters fly missions, primarily in the

Air Lift Group, and maintain current operational flying qualifications. These aircrew can provide an immediate surge capacity for Air Force operations during conflict.

7.23 The Active Reserve comprises personnel from all officer and other rank professions and trades. Air Force is reviewing the role of the Active Reserve, following its recent extensive reviews of trade structures. During a conflict, individuals or teams of Reserves provide critical services such as air traffic control, intelligence, technical support for Force Element Groups and ground support for forward air base operations.

7.24 The Specialist Reserve provides services, such as medical and legal services, for which the limited demand in peace does not require large numbers of full-time staff.

7.25 In peace, the General Reserve does not have an active role, but it comprises former Regular Air Force personnel with skills that are especially important during conflict. General Reserve members are encouraged to volunteer for Active Reserve duty on a temporary full-time basis for periods of up to three months each year.

RESERVE TRAINING

7.26 All elements of the Total Force should have a similar standard of individual training. Then, the distinction between Regulars and Reserves will relate to their level of military experience and availability. Common standards will enable the effective integration of Regular and Reserve elements. As much as possible, individual training for Reserves will be to the same standard as for Regular members, with employment determining the scope of training. Some resource allocations will be adjusted to ensure Reserves are able to undertake the tasks required of them. In particular, greater flexibility will be provided in the use of training resources.

7.27 In peace, part-time Reserve service generally precludes lengthy periods of continuous military training. Therefore it is not possible for Reserves to be proficient in the full range of military skills involved in modern warfare, especially those requiring large-scale collective training. Formed Reserve units carry out limited collective training in peace, but would require additional collective training after call-out to achieve full operational capabilities.

7.28 The twelve months of full-time training provided to Ready Reserves gives them a sound base of individual and collective skills. They then develop operational skills by further specialist and collective training. This relatively intensive training and exercising enables them to be ready for deployment at shorter notice than most other Reserves.

7.29 The Government recognises the need to increase experience levels of Reserve officers and senior non-commissioned officers within the limitations imposed by part-time service. As part of career development, selected individuals will develop experience through more intensive part-time service or by serving for periods on a full-time basis. Such service for Reserves also provides flexibility in personnel planning in the Regular component of the Australian Defence Force. Overall, career opportunities for Reserves will be maintained, including at the most senior ranks.

7.30 Many civilian occupational skills are important to the Australian Defence Force. Equally, civilian employers of Reserves, and the community in general, benefit from training provided to Reserves. Greater military accreditation of civilian skills and civilian accreditation of military skills will be sought. This, in turn, will enable increased lateral recruitment of suitably qualified personnel.

Army Reserve Training

7.31 To enable the Army Reserve to fulfil its role in the Total Force and to achieve the training requirements set out above, both individual and collective training will change. The Government is investigating options to improve the availability of Reserves for training. Individual training for Regular and Reserve members will be conducted to a common core and to the same standard.

7.32 Many of the current responsibilities of the General Reserve Training Groups will be transferred to centralised training establishments. The standard of Reserve basic officer training will be increased, and will be conducted under the control of the Royal Military College Duntroon using either extended periods of full-time training or a series of shorter modules, according to student availability.

7.33 Recruit training, which will also increase, will be the responsibility of the Recruit Training Battalion. Initial employment training will be in line with Regular training courses, but at a level consistent with likely operational tasks and set requirements. Mobile training teams from Army Schools will be used where this is cost-effective. Training Groups will conduct regional training where circumstances make it impractical for Reserve members to travel to centralised training establishments. Reserves will be posted to Regular training establishments as an important component of their career development.

7.34 The location of some Reserve depots reflects demographic characteristics which existed during and after the Second World War. Consistent with the review of Army structure, Reserve depots across Australia will be consolidated to meet the demands of Reserve collective training, and to make better use of personnel, facilities and equipment. The Government will examine those Reserve depots no longer required by the Australian Defence Force to assess whether some of them can be made available for use by local community groups.

AVAILABILITY OF RESERVES FOR DUTY

7.35 The Government expects Reserves to honour the form of Reserve service commitment they accept. Failure to do so disrupts Australian Defence Force activities and jeopardises the viability and utility of the Reserve. Therefore, all members of the Reserve must recognise that voluntary peacetime service involves a legal obligation for military service on call-out for duty. Individuals should not undertake membership of the Reserve unless they are prepared to accept that obligation.

7.36 The financial well-being of Reserves mostly depends on their civilian occupation. In recognition of this, the Government will move to provide appropriate conditions of service during part-time training and to encourage a supportive employer environment. The Government will also safeguard the financial interests of Reserves in the event of call-out.

Call-Out Protection

7.37 The Government is considering the protection of Reserves' interests on call-out by guaranteeing a return to their place of employment, offering financial compensation for employers, deferring tertiary studies and other employment-related training or education, reinstating employment-related licences which may have lapsed, assisting with the member's family home mortgage in defined circumstances, providing assistance with the welfare of Reserve members' families, and offering a call-out gratuity payment.

7.38 The Government believes that addressing this issue is important. Some of the proposals require administrative action, while others require consultation with other Departments and legislative action before they can be introduced. A Defence implementation team is working on these measures.

Employer Support

7.39 Effective Reserve capacity depends critically on the support of civilian employers. The Government consistently supports Defence initiatives to encourage employers to make their staff available for Reserve duty on a part-time basis. The Defence Reserves Support Committee provides valuable support in this respect. Given the increased requirements of Reserve training and the greater Reserve contribution to Defence capabilities, the Government will seek to increase its support to employers. To do this a better understanding is required of problems employers face in releasing Reserve members for training. Accordingly, research into employer attitudes to Reserve service will be undertaken to determine the most cost-effective means of providing incentives or other forms of recognition of the contribution employers of Reserves make to Defence.

Reserves in the Community

7.40 The facilities, equipment and skills in Reserve units across Australia have the potential to provide valuable emergency relief assistance to the civil community. Such assistance also promotes closer contact and understanding between Defence elements and local communities. As with other Defence support, Emergency Management Australia coordinates this assistance which normally is provided only in response to specific requests from State and Territory authorities. Current arrangements for requesting Defence Force assistance allow Reserves to volunteer their services, but their immediate availability, and the diversion of resources away from military training activities, are currently seen as impediments to using them. Participation and funding for such activities will be separated from normal Reserve training allocations.

PART III

International Defence Interests

CHAPTER EIGHT

REGIONAL ENGAGEMENT

8.1 Over the next fifteen years, the strategic environment in Asia and the Pacific is likely to be more demanding and to be determined, more than ever, by the policies and approaches of regional countries themselves. In these circumstances, Australia's engagement with regional countries as a partner in determining the strategic affairs of the region will be an increasingly important element in ensuring our security. We will develop our dialogue on strategic and defence issues with key countries of the region, and will aim to promote an environment which sustains a stable pattern of strategic relationships and avoids destabilising strategic competition.

8.2 The activities which we pursue with regional countries with these broad interests in mind will include bilateral programs aimed at cooperation in developing defence capabilities and professional standards appropriate to the legitimate defence needs of the countries concerned. We will continue to foster, through dialogue, an accurate understanding of Australia's strategic interests and security concerns and ensure that we in turn understand the perceptions, concerns and capabilities of neighbouring countries. This will reflect Australia's commitment, shared increasingly by our neighbours, to transparency in defence policy development and force planning. At the multilateral level, we will maintain our firm commitment to the Five Power Defence Arrangements. We will participate actively in processes which foster a sense of shared strategic interests and will encourage the continued evolution of cooperative security approaches in the region. We aim to ensure that these processes are inclusive and provide scope for the major powers of Asia and the Pacific to engage constructively with each other and with other countries of the region.

8.3 In the defence relationships we promote through these approaches, we will identify opportunities for defence materiel exports and for defence industry collaboration. This will help develop and support Australia's defence industry base, broaden our defence cooperation with regional countries and contribute to Australia's export and overseas investment performance.

8.4 Australia has maintained strong defence relationships since the Second World War with particular countries in Asia and the Pacific, especially the countries of ASEAN and the South-West Pacific. The scope, content and quality of our activities with these countries, particularly those in South-East Asia, will change substantially over the next fifteen years to reflect relationships based more on partnership and shared interests. As we train and exercise together, our relationships will develop new dimensions and depth, including new levels of strategic dialogue and defence industry collaboration.

8.5 The activities we develop to support our increasing engagement with the region will focus carefully on specific objectives. In most cases, these activities will not involve substantially greater resources, especially as over time there will be a greater emphasis on reciprocal benefits and cost sharing. We will need to set priorities which accord with our strategic interests for each relationship and each activity.

8.6 Activities in support of our regional interests will not in themselves determine the force structure of the Australian Defence Force, but our existing capabilities will continue to provide us with the scope to undertake the full range of activities and projects necessary to support our regional objectives.

SOUTH-EAST ASIA

8.7 We will continue to give highest priority in our regional defence approach to the pursuit of our interests with the countries of South-East Asia. A prosperous South-East Asia free from conflict and external pressures and characterised by increasing interdependence between regional countries is very much in Australia's interests. The countries of the region, with their growing economic and technological strength, their expanding military capabilities and their heightened self-reliance, will become increasingly valuable strategic partners for Australia over the period covered by this White Paper.

8.8 Our key defence relationships in South-East Asia will change significantly as our partners develop their economies and military capabilities. Already, our relationships are diversifying from traditional Defence Cooperation programs to give higher priority to strategic exchanges, combined exercising, logistics agreements, science and industry cooperation, cooperative equipment acquisition and training cooperation. Our broader relationships will reflect shared interests and responsibilities and meet the needs of both parties. Although we will continue to provide and fund training and other activities under Defence Cooperation programs, we expect that the costs of these activities increasingly will be shared. Indeed, by 2010 traditional Defence Cooperation programs of the donor-recipient kind no longer will be a significant element in our defence relationships with most South-East Asian countries and will have been replaced by activities more appropriate to partnership-based relationships.

Indonesia

8.9 Indonesia is particularly important to the security of Australia and in the strategic affairs of South-East Asia. As its economy grows, it will become increasingly influential in Asia and the Pacific.

8.10 Indonesia's archipelago reaches across a large part of the northern sea and air approaches to Australia. Consequently, Australia looks for stability in Indonesia and an Indonesian Government which continues to take a responsible view of its role in South-East Asia and a constructive approach to its relationship with Australia. During the turbulent 1950s and early 1960s, Australia was concerned about the direction Indonesia seemed to be taking. The stability, cohesion, economic growth and positive approach to the region which have characterised Indonesia since 1965 have contributed much to the stable and generally benign strategic environment which has prevailed in South-East Asia since the end of the Vietnam War. This, in turn, has done much to ensure that the demands on Australia's defence planning have remained manageable.

8.11 Our defence relationship with Indonesia is our most important in the region and a key element in Australia's approach to regional defence engagement. It is underpinned by an increasing awareness of our shared strategic interests and perceptions. The changes flowing from the end of the Cold War have expanded the potential and the need for cooperation. A constructive relationship between Indonesia and Australia, as two substantial military powers in the region, does much to support the security of our nearer region in the more fluid and complex strategic environment we face in Asia and the Pacific. More broadly, close defence links with Indonesia strengthen the wider bilateral relationship between Australia and Indonesia.

8.12 The defence relationship between Australia and Indonesia has developed and diversified strongly in recent years. To further the relationship our respective Defence Ministers will meet annually, a development which parallels the regular meetings of foreign and economic ministers provided for in the Australia-Indonesia Ministerial Forum.

8.13 It remains important to ensure that our cooperation continues to be based on a clear understanding of one another's strategic perceptions and priorities. The relationship will therefore foster closer consultation on strategic and defence issues, including exchanges on strategic trends and senior level discussions on regional as well as bilateral defence and strategic policy issues.

8.14 Australia's security is enhanced as Indonesia develops its capacity to defend its own territory, because this makes it less likely that in the future any hostile third power could mount attacks from or through the archipelago across our sea and air approaches. In strengthening the bilateral relationship, we also will give attention to developing the capabilities of our respective forces. Combined exercises involving Indonesian and Australian forces are also likely to become more frequent, covering naval, land and air forces, including special forces. These exercises, both in Australia and Indonesia, enhance the capabilities and professional standards of each country's forces and make it easier for us to operate together, for

example in UN peacekeeping missions. Australia's training assistance will be an important element in this process. In recent years, the number of Indonesian service personnel participating in training with Australia has risen rapidly, and this is expected to remain a prominent factor in our defence relationship.

8.15 Scope exists to cooperate in defence industry, and in the logistics and materiel areas. Closer cooperation with Indonesia's growing defence industry capability could offer important commercial and strategic advantages for our own defence sector. We will explore the prospects for cooperating in logistics, repair and support of equipment and, in the longer term, seek opportunities to develop and produce jointly defence equipment. Such cooperation will be supported by defence science links where these are clearly mutually beneficial.

8.16 There are differences in the roles of our defence forces and in our political systems. Yet our defence relationship with Indonesia is underpinned by shared strategic interests and perceptions and mutual advantage in stronger cooperation. Both countries are clearly committed to developing a strong bilateral relationship in which defence has an important part.

Malaysia and Singapore

8.17 Australia regards Malaysia and Singapore as important regional partners. We have strong bilateral defence relationships with both countries, going back many years and drawing on long-standing, shared strategic interests. The geographic location of Malaysia and Singapore make their security and territorial integrity important to Australia and to the region as a whole.

8.18 Our interests in the security of Malaysia and Singapore are formally reflected in our support for the Five Power Defence Arrangements, under which we are committed to consult with these countries if either is attacked or threatened with attack. The Government believes this commitment continues to serve Australia's strategic interests. The Five Power Defence Arrangements remain entirely compatible with the new approaches to multilateral security cooperation in the region.

8.19 The Five Power Defence Arrangements provide important opportunities to cooperate in developing the defence capabilities of all members. Regular and increasingly challenging combined and joint exercises in and around Malaysia and Singapore will continue to be valued by all partners in the Arrangements.

8.20 Some adjustments to the way the Five Power Defence Arrangements operate are being considered. Such adjustments would keep the Arrangements relevant to the changing needs of the partners. The strategic environment has changed markedly since they were established twenty three years ago, and Malaysia and Singapore have developed their defence capabilities significantly since then. In approaching these adjustments, we will place the highest priority on the wishes of Malaysia and Singapore, and preserve the essential basis of cooperation.

8.21 Our bilateral defence relationships with Malaysia and Singapore both are developing in important new directions. Our wide range of cooperative activities with Singapore is being supplemented by the development of substantial Singaporean training and exercising activities in Australia, mostly on a fee-for-service basis. By using Australia's abundant air and land space, Singapore can conduct activities which it cannot readily undertake in its own constrained territory. These activities reflect the strong sense of trust between Australia and Singapore, and serve our strategic interests by helping to enhance Singapore's defence capabilities. Singapore's armed forces are making substantial investments in the construction of facilities in Australia, and providing valuable opportunities for Australian companies to support their activities.

8.22 Our defence relationship with Malaysia is substantial and diverse. It will continue to develop strongly, with more emphasis on training, exchanges, exercises and materiel cooperation. We will seek to maintain our deployments of P3C

maritime patrol aircraft to the Royal Malaysian Air Force base at Butterworth in Malaysia to conduct surveillance missions in South-East Asian waters, and for Army Rifle Companies to rotate through Butterworth for three month deployments under the Five Power Defence Arrangements.

8.23 Overall, the scope of cooperation with Malaysia and Singapore will increase as the capabilities of their armed forces expand. The introduction of new, advanced aircraft and ships will offer new opportunities for cooperation in training, logistics, science and technology and other support areas. We will also give high priority to developing materiel cooperation, including cooperatively acquiring equipment, where appropriate.

Other South-East Asian Countries

8.24 We will also develop our defence relationships with Thailand, the Philippines and Brunei, adding depth and resilience to our defence links with the region as a whole. Thailand's strategic location in mainland South-East Asia, and its substantial and rapidly growing economy, mean that it will be increasingly important in regional strategic affairs. Already we have a substantial training and defence science program with Thailand's armed forces, and we are seeking opportunities for logistic and materiel cooperation.

8.25 In Indochina, we have encouraged Vietnam to participate in regional security dialogue processes, and will continue to do so, as a means of encouraging that country's constructive involvement in the security affairs of the region. The same is true of Laos. In Cambodia, we will maintain a defence relationship with the new Government and, consistent with our wider policy interest in the rehabilitation of that country, will provide modest levels of assistance to help reform and modernise its armed forces. ASEAN has already affirmed its readiness to accept Vietnam as a member, and other Indochinese countries - as well as Myanmar - may follow in due course. In these circumstances scope for bilateral defence contacts with Australia will increase.

NORTH-EAST AND SOUTH ASIA

8.26 Strategic trends in Asia and the Pacific, particularly the increasing power and influence of key countries, require Australia over the next fifteen years to accord more importance to defence contact with the major countries of North-East and South Asia. Increasingly, we will need to develop constructive defence relationships with them which will help us understand their strategic policies and interests; make them aware of ours; and encourage them to use their power in ways consistent with the stability and security of the region. The nature of our interests,

the distances involved, and the differences between our armed forces, mean that we will seek primarily to develop exchanges which provide greater mutual understanding of strategic perceptions and policies. In some cases this has already begun.

8.27 Japan will become more active in security issues in the region. It has a close interest in the emerging multilateral regional security approaches, and will continue to support them. We in turn will seek to develop our defence relationship with Japan, primarily by expanding dialogue and exchanges on strategic issues and policy directions. We aim to engage actively with Japan to develop our respective perceptions of security issues and priorities in Asia and the Pacific. We will develop further our dialogue on strategic planning issues and, over time, may develop more practical cooperation.

8.28 Over the next decade, China is likely to be the most powerful new influence on the strategic affairs of our wider region. As with other regional countries, we seek a better understanding of China's strategic perceptions and intentions, and a better understanding by China of regional perceptions of security issues and China's place in them. To this end, we will develop further our strategic dialogue with China and encourage China to participate fully in regional and other multilateral security discussions.

8.29 Likewise, developments on the Korean Peninsula, including the North Korean nuclear issue and the prospects for a reunified Korea, have the potential to impact significantly on the wider region. Australia therefore will monitor them closely. We will remain alert to opportunities for practical cooperation with the Republic of Korea, for example in defence industry. We could also see value in North Korea participating in regional dialogue processes, although this is hard to envisage while its existing international obligations remain unmet. In time, opportunities also may arise for constructive contact with Taiwan on defence and security issues.

8.30 India will remain an important power in the Indian Ocean region, and it may become a key element of the wider strategic balance in Asia. We will develop our modest defence relationship with India to improve our understanding of its strategic perceptions and priorities, and encourage India to understand our interests. Trends in the strategic affairs of the Indian Ocean region will be an important element of that agenda. Senior level visits, and naval visits, will continue on an opportunity basis. As well, constructive contact with other countries of South Asia, in particular Pakistan, will support a more thorough understanding of issues that might affect Australia's interests.

SOUTH-WEST PACIFIC

8.31 The countries of the South-West Pacific are strategically important to Australia. In the unlikely event that a potentially hostile power acquired undue influence over one or more of the island states, the effect could be detrimental to the region and to the security of Australia. Therefore, we will continue to cooperate with and assist these potentially vulnerable countries in securing their protection. Our present defence activities with these countries reflect this commitment. We will continue to build on these relationships, and further our efforts to promote the prosperity and well-being of our Pacific Island neighbours.

8.32 Our defence relationship with Papua New Guinea is the most substantial in the South-West Pacific. It is based now less on historical association, and more on the assessment of our enduring strategic interest in the stability and security of Papua New Guinea. Australia's interests continue to be served best by a stable, self-reliant and cohesive Papua New Guinea, able to exclude hostile external powers and well-disposed towards its neighbours. Under the Joint Declaration of Principles signed in 1987, Australia and Papua New Guinea are committed to consult if an external armed attack threatens the sovereignty of either country to decide what measures should be taken in response. Our Defence Cooperation program with Papua New Guinea, while reducing in scale, remains substantial. Consistent with the Agreed Statement on Security Cooperation concluded in 1991, we will help the Papua New Guinea Defence Force and the Royal Papua New Guinea Constabulary to address the country's current and pressing problems more effectively, although primary responsibility for solving these problems of course remains with Papua New Guinea.

8.33 In other South-West Pacific countries, we will give priority to developing the capabilities of these nations to assert and protect their sovereignty in peace, often cooperating with police forces where regular military forces do not exist. We will continue to give high priority to helping develop capabilities to police maritime Exclusive Economic Zones through continuing support for maritime surveillance projects and activities, and consulting closely with the Forum Fisheries Agency. In particular, in the Pacific Patrol Boat program the Government will offer a half-life refit package for all vessels, at a total value of $19 million. The work will extend over eight years, beginning in 1995, and will involve the overhaul and upgrade of systems and equipment to overcome obsolescence and ensure all vessels reach their planned fifteen year life span.

8.34 In this and other activities, we aim to foster cooperative approaches within which the Pacific Island countries can help one another. We will continue to use the resources of our Defence Cooperation program to undertake projects aimed at supporting social and economic development. We will ensure that such projects have been accorded high priority by the governments concerned, and will limit

Defence involvement to projects we can undertake more effectively than other Government agencies.

MULTILATERAL SECURITY

8.35 Just as a sense of community has emerged in relation to economic interests in Asia and the Pacific, reflected in the success of the APEC process, so too a sense of shared strategic and security interests is emerging. It is in Australia's interests to foster this trend, encouraging countries of the region to recognise the interests they share and ways they might cooperate to support them. The new multilateral approaches to regional security are not intended to supplant our existing defence relationships, either bilateral or multilateral. The emerging cooperative security approaches build on the existing networks of relationships, including our alliance relationships with the United States and New Zealand, and the Five Power Defence Arrangements with Malaysia, Singapore, New Zealand and the United Kingdom. We do not envisage that the arrangements which develop from the present processes will lead to formal multilateral alliances: the geographic reach and the wide disparities within the region preclude that. What is important is that a new set of dynamics is in train in the region, and countries now are addressing strategic concerns in a cooperative manner unprecedented in Asia and the Pacific.

8.36 The Defence Organisation is a partner in Australia's broader policy approach. As such, Defence has encouraged the 'second track' - that is university or think-tank based activities - which carried forward these new approaches to regional security in their early stages. Defence also participated in the processes relating to the inaugural meeting of the ASEAN Regional Forum in 1994. Defence will increasingly have a role in activities relating to that Forum as it directs its attention to issues such as transparency and confidence building among defence forces in the region.

CHAPTER NINE

ALLIANCES

THE UNITED STATES ALLIANCE

9.1 Australia's defence alliance with the United States continues to be a key element of our defence policy, and will remain so over the period covered by this White Paper. The relationship formalised in the ANZUS Treaty reflects the close alignment of our enduring strategic interests. During the Cold War, activities under the alliance were shaped largely by our membership of the Western strategic community, which supported the ability of the United States to maintain a global strategic balance with the Soviet Union. The relationship, however, is founded on our shared interests in a stable and secure Asia-Pacific region and values and traditions which pre-date the Cold War and will endure long after it.

9.2 Throughout the period covered by this White Paper the United States will remain the strongest military power in the world with the most sophisticated military technology; it will be a key influence on the security of Asia and the Pacific; and it will have a central place in any multilateral security arrangements which emerge and in the negotiation and implementation of arms control and disarmament measures.

9.3 The alliance will continue to serve the interests of both countries. The United States will benefit from Australia's support: we are closely engaged in regional affairs and sympathetic to most American values and interests. More broadly, the alliance strongly supports the United States' continued strategic presence in the Western Pacific, which is of major strategic interest both for the United States and for Australia, and for others in the region.

9.4 The major trends shaping our strategic environment will affect the alliance. The United States will retain important interests in our region and strong forces to protect those interests. Yet the nature and perception of American interests and the capabilities of US forces will change. American expectations of the alliance will change with them, as the previous emphasis on alliance cohesion against the Soviet Bloc is replaced by a more complex and evolving US posture. Equally, Australia's requirements of the alliance will change as we develop our capabilities further, and become even more active in regional strategic affairs. Increasingly, as we seek security in and with Asia, we will value our alliance with the United States not just for the contribution it makes to Australia's own defence, but also for its broader contribution to regional security.

9.5 These changing priorities and activities will invigorate the alliance and ensure it remains relevant. Our defence relationship will require careful management. With the passing of Cold War certainties, we will need to work hard to make sure that the alliance continues to meet the needs of both parties.

Mutual Support

9.6 Australia's self-reliant defence policy requires that our defence capabilities enable us to defend Australia without depending on combat help from other countries. It follows that we do not rely for our defence on combat assistance from the United States. Nonetheless, the undertakings in the ANZUS Treaty, and the United States' strong record of standing by its allies, mean that we would expect substantial and invaluable help in a crisis. That expectation would seriously complicate the planning of any potential adversary. Our alliance with the United States thus remains a valuable additional deterrent to any country contemplating hostile action against Australia. For our part, Australia stands by its obligations under ANZUS to cooperate with the United States to meet common dangers in the Pacific area.

9.7 Our alliance with the United States retains a more specific significance in relation to the remote prospect of a nuclear threat to Australia. The end of the Cold War has reduced the danger of global nuclear war, and concern that US-Australian Joint Defence Facilities in Australia might have become nuclear targets in a global war has receded. Nevertheless, the use of nuclear weapons remains possible, especially if they continue to proliferate. Australia, therefore, will actively pursue multilateral efforts to restrict the proliferation of nuclear weapons. The Government does not accept nuclear deterrence as a permanent condition. It is an interim measure until a total ban on nuclear weapons, accompanied by substantial verification provisions, can be achieved. In this interim period, although it is hard to envisage the circumstances in which Australia could be threatened by nuclear weapons, we cannot rule out that possibility. We will continue to rely on the extended deterrence of the US nuclear capability to deter any nuclear threat or attack on Australia. Consequently, we will continue to support the maintenance by the United States of a nuclear capability adequate to ensure that it can deter nuclear threats against allies like Australia.

Practical Benefits to the Australian Defence Force

9.8 The relationship supports the capabilities that Defence maintains for the self-reliant defence of Australia. Over the period covered by this White Paper, that support may become even more important to our efforts to enhance the capabilities of Defence to meet more demanding circumstances.

9.9 Intelligence cooperation with the United States is fundamental to our national effort, and this will continue over the next fifteen years. Without that help, Australia's national intelligence effort would need to be much bigger, and could not be as effective. In return, Australia's national intelligence resources, developed primarily to meet our own needs, contribute substantially to intelligence cooperation with the United States. We will ensure that we shoulder an appropriate share of the burden in return for the benefits we receive, and that we cover with our own intelligence resources, as much as possible, those areas of highest priority to Australia.

9.10 Access to high technology from the United States will continue to be important in sustaining the leading edge capabilities which Defence will need to meet the demands of our evolving strategic environment. Across the range of platforms and systems, the United States provides Australia with access to the highest level of exportable weapons and technology. Maintaining that access will be important to sustaining our self-reliant defence posture. The United States Government recognises the importance of this to Australia's defence posture. It has undertaken that, as a close ally of long standing and a major buyer of US defence equipment, Australia will continue to receive preferential access to US military technology. This will help Australia to maintain defence readiness and capability at the level of sophistication envisaged in our defence policy.

9.11 Defence science links with the United States support our access to high technology through partnerships in developing advanced technologies applicable to our strategic environment. The United States will remain a major source of advanced technologies, and the links which the Defence Science and Technology Organisation has with the United States will also help Australia to maintain an indigenous defence capability for modifying and maintaining US-sourced systems. Australia, for its part, will continue to participate actively in defence-science exchanges and contribute effectively across a range of research and development activities.

9.12 The maintenance of the Australian Defence Force's professional military skills benefits from the breadth and depth of the military relationship with the United States. Combined exercises, exchanges of military personnel, and training in each other's establishments expose both sides to new concepts, and help to cement the interoperabilty that is fundamental to combined operations. Australia enjoys excellent access in these areas. We will maintain the current arrangements and review them to ensure their continuing relevance. As well, our logistics and support arrangements with the United States enable us to maintain lower stocks and to reduce the costs of developing our equipment.

Joint Defence Facilities

9.13 Cooperation with the United States in our Joint Defence Facilities serves both countries, and contributes to global security. At Pine Gap, we cooperate in intelligence collection, including monitoring arms control and disarmament agreements and military developments in many areas of interest to Australia. The operations at Pine Gap provide us with intelligence which is valuable to our own security. The systems supported by Pine Gap will evolve to meet the new demands of the post Cold War era, and we expect that Pine Gap will remain a central element of our cooperation with the United States well into the next century.

9.14 Nurrungar is a ground station for the United States Defense Support Program which uses infra-red satellite detection to give early warning of ballistic missile launches. The Program provides residual reassurance against the possibility of major Inter-Continental Ballistic Missile attack, but increasingly it is being oriented towards detecting and defending against shorter range tactical missiles of the kind used in the Gulf War. Our participation in the Defense Support Program contributes to global security against surprise or accidental nuclear attack. It also helps to inhibit the proliferation of ballistic missiles, and provides information on ballistic missile launches of interest to Australia. US missile early warning programs will evolve to meet post Cold War needs and take advantage of developing technology. This may mean the Joint Facility at Nurrungar will not be needed in its present form after 2000. Nonetheless, we expect the United States will continue to value Australian cooperation in supporting missile early warning, and such cooperation will continue to be in Australia's interests.

9.15 Under arrangements agreed upon in 1991, the Harold E. Holt Naval Communication Station at North West Cape will remain a Joint Facility until May 1999, when it will become an Australian naval communications facility. The US Navy will continue to have access to the Station after the transition. Continuing cooperation in the operation of Harold E. Holt will ensure that Australia and the United States have access to a powerful communication station well into the next century.

9.16 All activities at the Joint Defence Facilities are managed to ensure they are consistent with Australian interests. The activities take place with the full knowledge and concurrence of the Australian Government, and Australia benefits fully from them.

Regional Interests

9.17 US strategic engagement and military presence will continue to be important to the security of Asia and the Pacific over the next fifteen years. Our alliance with the United States helps to sustain the US engagement in the region, which supports our interests and those of the region as a whole. The United States looks to its network of bilateral alliances to maintain its continuing presence in the Western Pacific. Australian and US perspectives on regional issues will differ sometimes, but overall our approach to regional engagement and our alliance with the United States work together to promote our regional security interests. We therefore will encourage further cooperation between the United States and other regional countries.

9.18 We will facilitate, when we can, US activities and deployments in the region. We give the United States practical support by providing access to our ports, airfields and other facilities; providing maintenance; offering access to industry capabilities; providing training opportunities; and sharing intelligence on regional matters. We will also encourage US participation together with our own in regional multilateral exercises.

Global Security

9.19 Our alliance with the United States contributes to our efforts to promote a stable and peaceful international system through the UN and other multilateral regimes. The United States will remain a leader of such international efforts, and our close relationship helps Australia contribute substantially to coalitions established for UN and other multilateral activities. Our effectiveness in such operations is facilitated by our interoperability with US forces. Peace operations provide additional opportunities for the Australian Defence Force to work with US

forces, and have other positive benefits too for the alliance relationship and our overall standing in Washington.

THE NEW ZEALAND ALLIANCE

9.20 Both Australia and New Zealand expect that if either country were threatened, the other would come to its aid. That expectation reflects both the strong personal, economic, cultural and historical ties between us, and the shared strategic interests which result from each country's security being bound closely to the other's.

9.21 These interests are expressed in our continuing defence alliance. The ANZUS Treaty embodies formal commitments and reciprocal obligations between Australia and New Zealand which endure despite the United States' suspension of security obligations to New Zealand. Despite changes in the global and regional environment over recent years, our defence alliance with New Zealand remains important to Australia's defence policy. Indeed, in the more demanding strategic environment of the next century, it may become even more important. Australia values the support which New Zealand could offer us in a conflict, and we will continue to accept our ANZUS obligations to New Zealand.

9.22 Beyond these bilateral commitments under ANZUS, our defence relationship with New Zealand reflects the fact that as Asia-Pacific countries we share a wide range of interests in the security and stability of that region, particularly in South-East Asia and the South-West Pacific. New Zealand actively participates in regional security efforts and activities in pursuit of common goals. We welcome continued New Zealand engagement in South-East Asia. Australia and our partners benefit from New Zealand's participation in the Five Power Defence Arrangements. New Zealand also contributes significantly to the stability and well-being of the South-West Pacific.

9.23 Continuing cooperation in a wide range of activities throughout our region will become increasingly important in our defence relationship with New Zealand. We look forward to New Zealand playing a sustained, and if possible, enhanced role in regional security. This includes New Zealand participating in exercises involving regional countries.

9.24 Australia and New Zealand will also continue to work together in support of our shared commitment to global security, especially through the United Nations. We have deployed combined detachments of Australian and New Zealand personnel to major UN operations, including Namibia and Cambodia. These very successful examples of regional cooperation in support of the United Nations draw on the close and long-standing links between our defence forces, and serve as a model to develop wider regional cooperation in support of UN operations.

9.25 Our strong alliance means both Australia and New Zealand are interested in the effective development of our respective defence forces and the enhancement of our capability to fight effectively alongside one another if needed. Increased cooperation in defence between Australia and New Zealand over the period of this White Paper will depend on sustaining modern capabilities and ensuring a high degree of interoperability between our defence forces. We have the highest regard for the dedication and professionalism of the New Zealand Defence Force, and we will seek opportunities in areas of mutual interest for closer cooperation between it and the Australian Defence Force.

9.26 This will require sustained effort so that necessary capabilities are maintained and developed in each country's defence force, consistent with national policies. New Zealand's smaller economic base imposes constraints on the total size of its defence effort, but Australia will seek a continued commitment to sustaining defence capabilities in the New Zealand Defence Force which can contribute to our shared strategic interests, consistent with our mutual alliance obligations.

Closer Defence Relations

9.27 Since 1991, under Closer Defence Relations, closer consultation on defence planning and management issues has improved cooperation and coordination with New Zealand on the development of our respective defence forces. Closer Defence Relations aims to ensure that we take full advantage of opportunities to enhance our respective capabilities through cooperative programs, including those which use our resources more efficiently, and that we develop habits and procedures of cooperation which allow us to work together effectively in a crisis.

9.28 We expect that Closer Defence Relations will continue to provide important benefits to both sides. With appropriate commitment, we see the potential to increase substantially the mutually supporting activities which both countries have undertaken in recent years.

9.29 We will also continue with New Zealand to seek the military and economic benefits flowing from cooperative defence equipment projects. They have provided substantial opportunities for both Australian and New Zealand industry, and offer significant operational and logistic advantages, the result of operating similar equipment and realising savings through shared training and support activities.

9.30 We continue to regret the dispute arising from New Zealand policy between the United States and New Zealand over ship visits. We believe it is an issue for the two nations themselves. The dispute has not prevented the development of our defence relations with either party, but valuable additional opportunities for cooperation with New Zealand would arise from progress on the issue.

OTHER INTERNATIONAL INTERESTS

9.31 Australia's international defence relationships extend beyond our alliance and regional relationships to include valued historical ties and defence industry links with the United Kingdom, Canada and a number of European countries. The Government will continue to promote defence links with countries beyond Asia and the Pacific, and particularly with the United Kingdom and Canada, as well as with France, Germany, Italy, the Netherlands and Sweden. These countries have strong technical and industrial bases, and a record of supporting global security. In an increasingly challenging strategic environment, we will seek to broaden and diversify our sources of high technology and support. The focus in developing our links with most countries outside our region therefore will be in logistic support, defence science and materiel collaboration.

9.32 Australia's defence relationship with the United Kingdom is particularly important. It reflects deep historical ties between our defence forces, and these result in practical cooperation in areas of substantial benefit, especially in training and exercises. We benefit from strong intelligence links, and from defence science cooperation through The Technical Cooperation Program, which also includes the United States, Canada and New Zealand. In our region, we cooperate through the Five Power Defence Arrangements, to which the United Kingdom makes a valuable contribution. We also have long-standing links with Canada, with which we share an interest in F/A-18 aircraft and other equipment.

9.33 France has interests in the Pacific. There is scope for some cooperation with French forces based in France's Pacific territories, especially in fisheries surveillance, search and rescue and disaster relief. France can also be a partner in defence technology, and the Government has concluded a bilateral arrangement for scientific cooperation in the defence arena. Close interaction with Sweden will continue, building on the links established through our cooperation on the Collins Class submarine project and airborne early warning studies. Some strengthening of our interaction with Germany is likely; Germany is the source of the design for our ANZAC frigates and of our Leopard tanks. Further cooperation with Italy also is likely following our decision to build Huon Class minehunters. Australia has concluded cooperative logistic support arrangements with France, Germany and Italy to complement those we already have with the United States, the United Kingdom and New Zealand. These arrangements reduce our need to hold expensive reserve stocks, and promote links which can help Australian industry to sell its defence-related products to appropriate recipients overseas.

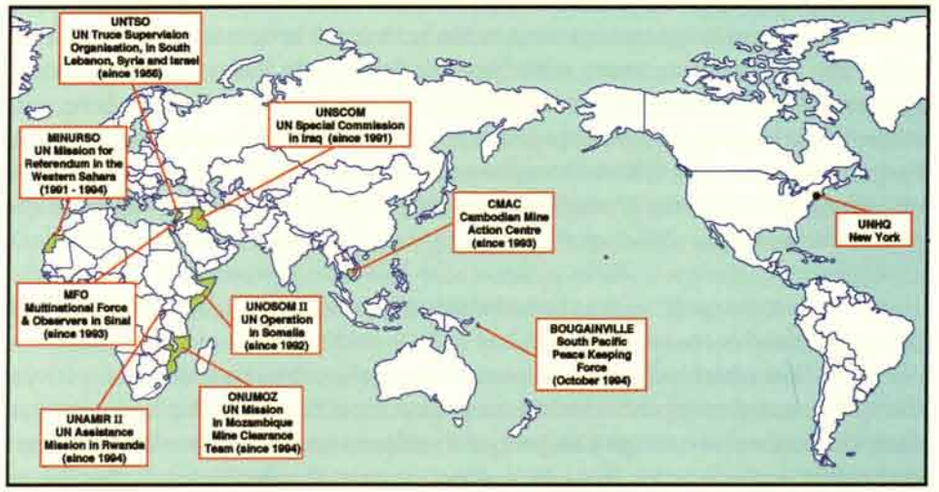
CHAPTER TEN

SUPPORTING GLOBAL SECURITY

10.1 Australia's security is enhanced by the existence of multilateral institutions and agreements which can mobilise international opinion and action to resist aggression and limit the destabilising proliferation of weapons, especially weapons of mass destruction. Our national interests are served both by conflict prevention, management and resolution through UN mechanisms, and by the United Nations playing an active role in alleviating international humanitarian disasters caused by natural disasters, political turmoil and war. Australia welcomes the opportunity the United Nations has had, since the end of the Cold War, to function more in the manner its founders intended.

10.2 Australia's support for UN and other multilateral activities is a national effort, involving many Government agencies and non-governmental organisations. Defence plays an important part by providing contingents and support to UN and other peace operations, and by supporting efforts to implement arms control and disarmament agreements. Australian Defence Force commitments to UN and other multinational peace operations during 1994 are shown in Figure 10-1.

Figure 10-1: Australian Defence Participation in Multinational Operations, 1994



PEACE OPERATIONS

10.3 In some cases, Defence's participation in multinational operations directly supports Australia's strategic interests. In the Gulf War of 1990-91, Australia's contribution of forces to coalition operations helped to reaffirm the principle that outright aggression by one country against another is intolerable to the international community, and should not go unchallenged or unanswered. These activities reinforce the credibility of UN collective security provisions; help make international aggression less likely; and increase international support for Australia if we ever face such aggression ourselves. In the Cambodian settlement process of 1991-93, the Australian Defence Force contingent played a major part in addressing a serious regional problem and offering hope to the Cambodian people.

10.4 Participation in UN peace operations also complements Australia's regional and alliance interests. Our participation in peace operations in Cambodia provided a constructive basis to increase cooperation with regional countries. We are making opportunities available to regional countries to undertake peacekeeping training with Australia, and are seeking ways of expanding this type of cooperative activity. By developing closer cooperation in peace operations with regional countries we build confidence and contribute to cooperative regional security arrangements. For Australia to continue to play a leading role, we will need to retain both the perception that we are committed to supporting peace operations, and the knowledge and standing flowing from first-hand experience of these operations.

10.5 With New Zealand we have already cooperated in peace operations in Namibia and Cambodia, but we can increase this cooperation, perhaps by combining contributions. Such contingents would build on the existing high level of interoperability of the respective forces; add to the flexibility of both countries to participate in peace operations; and enhance defence cooperation in a practical way. By collaborating more with New Zealand, both the goals of our peace operations and our defence relationship should benefit. Furthermore, our involvement in peace operations provides benefits in our relationship with the United States. More generally, it benefits our international standing, including our influence on efforts to reform the United Nations in its role in maintaining international peace and security.

10.6 In some cases, such as in Somalia in 1993-4 and Rwanda in 1994, Defence has participated in operations which had little or no direct strategic significance for Australia, but which supported important international humanitarian objectives. The Government recognises that when circumstances require it, the deployment of Defence contingents, usually as part of a wider national response including aid operations and wherever possible non-governmental organisations, may be an appropriate response to help alleviate desperate humanitarian crises.

10.7 In recent years as the role of the United Nations has expanded, the number, nature and scale of UN peace operations have grown. The experience of the last few years has shown the limits as well as the potential of peace operations. In particular, it has shown again that military forces should be deployed only where there is a clearly defined military task to perform. Nonetheless, the recent relatively high number of peace operations is likely to continue over the longer term. The experience of recent years has shown limits to the UN's capacity to manage complex operations in many corners of the world. We are helping to improve UN planning capability, and have posted Defence personnel to UN headquarters in New York to help address these problems.

10.8 Australia attaches high priority to providing Defence contingents to UN and other multinational peace operations. The number of Defence personnel serving on peace operations at any time will fluctuate because the number and scale of operations to which we contribute will vary. We prefer now not to set numerical targets for the level of forces committed to the United Nations. It would not be prudent to deploy Australian personnel to difficult and potentially dangerous operations simply to keep up our numbers, if those operations did not warrant such contributions on their merits. Equally, we would not wish to preclude participation in worthwhile operations simply because we had already exceeded a target number. We will seek every opportunity to participate in operations which meet our case-by-case criteria, contributing over time to a reasonable range and number of operations, and striking a balance between the value of our commitments and their number. The Australian Defence Force contributes valuable technical capabilities and high quality participation rather than raw numbers. Indeed, the United Nations often actively seeks specialised capabilities from Australia.

10.9 We therefore will continue to examine each case on its merits, retaining a broad commitment but evaluating our performance in support of the United Nations not just in terms of the number of operations we are in but, more importantly, in terms of the quality of our contribution to the operation's success and to our overall objectives. We must consider whether we are contributing sufficiently to a positive and effective international response to security problems in a way which strengthens cooperative security mechanisms, and whether we are maintaining our standing globally, regionally, and with our allies, as a committed supporter of the United Nations and a constructive contributor to responsible international security action. The Government also will take account of the community expectations that we should help in a major international crisis.

10.10 The criteria we apply to requests for Australian participation in UN operations continue to be refined. Australian Defence Force participation in peace operations takes into account whether the operation has clear and achievable goals and clearly defined termination or review points; what other resources are likely to be available for the operation; how much Australian interests are engaged, including

regional, alliance and humanitarian interests and community attitudes; what costs the contribution might incur, including the effect on the Australian Defence Force's capacity to undertake other tasks including national defence; what our commitment to other operations is at the time, having regard among other things to our reputation as a supporter of the United Nations; what training and other benefits will accrue to the Australian Defence Force; and what risk to personnel is involved. While we work to try to improve UN mechanisms for responding to crises, we also are examining our own decision-making process to ensure a timely response when an Australian contribution is warranted.

10.11 The requirements of the particular operation and the availability of units determine which elements we contribute to peace operations. We do not establish special units or earmark elements within the Australian Defence Force for peace support. The United Nations requires different types of units for different operations. If we tried to predict UN needs we could restrict our flexibility to provide elements from our wide range of capabilities to meet the requirements of specific operations. The Australian Defence Force's capabilities and readiness levels enable Australia to make substantial contributions to a range of peace operations, sometimes at very short notice. Indeed, Defence is sufficiently versatile to allow contingents to be assembled from a range of units to provide the right combination of skills and experience for a particular operation and to meet UN levels of readiness for stand-by units. The Australian Defence Force is structured for defending Australia, but the versatility inherent in such a force ensures it can contribute to peace operations. The demands of these peace operations therefore need not, and will not, influence the force development process other than at the margins.

10.12 So far, our contributions to UN and other multinational peace operations have included engineers, communicators, medical teams, movement control personnel, aviation and other specialised contingents, as well as self-contained units including infantry battalions and naval task groups. To help their planning we provide the United Nations with regularly updated lists of the capabilities which we can provide for peacekeeping operations. Our Permanent Mission to the United Nations in New York will work actively with the United Nations in identifying those of our capabilities which best meet UN needs for specific operations. We are also examining other ways to ensure the United Nations maximises the benefit from Australian participation in peace operations, and that we maximise the training benefits for Defence.

10.13 The professional skills of Defence personnel deployed on peace operations are supplemented by specific training in peace operations. The Australian Defence Force Peacekeeping Centre draws on Australian and overseas experience to assist in developing our peacekeeping skills and those of our regional neighbours. The Peacekeeping Centre also contributes to the training of our own and other forces by preparing relevant doctrine for the Australian Defence Force and training material for the United Nations Department of Peacekeeping Operations and the United Nations Institute for Training and Research. The Reinforcement Holding Company at Randwick plays a specialised training role in preparing contingents for operations in the field by providing specific work-up periods.

10.14 Australia may be asked to participate in multinational peace operations or coalitions other than those under the United Nations. The Multinational Force and Observers in the Sinai is such an operation, to which we currently provide a contingent of 27 Australian Defence Force personnel and the Force Commander. The South Pacific Peace Keeping Force in Bougainville is another non-UN peace operation. Requests to participate in non-UN bodies will generally be considered against the same criteria as UN requests, although funding arrangements will usually be different from UN arrangements and contingents on such operations may lack the protective status of a UN mission.

10.15 Peace operations are costly and Australia only recovers a part of Defence deployment costs from the United Nations. Furthermore, Defence participation in peace operations is usually hard to predict and budget for. While Defence meets the costs of relatively minor UN deployments, the Government supplements the Defence budget for the costs of larger peace operations. This practice has proved effective and will continue.

NON-PROLIFERATION AND ARMS CONTROL

10.16 Effective controls on the proliferation of weapons of mass destruction and ballistic missiles contribute significantly to Australia's security. Twenty years or more of sustained negotiation between the then superpowers and in multilateral forums have led to the development of an unprecedented array of non-proliferation and arms control regimes (particularly the Strategic Arms Limitations Agreement and the Strategic Arms Reduction Treaty, the Treaty banning Intermediate-Range Nuclear Forces, the Nuclear Non-Proliferation Treaty, the Chemical and Biological Weapons Conventions, and the Partial and Threshold Nuclear Test Ban Treaties). However, with the end of the Cold War, economic growth and strategic uncertainties have increased the potential for proliferation of weapons of mass destruction. As a result, non-proliferation issues are at the forefront of international security concerns.

10.17 Australia shares a global interest in reducing the risk of countries acquiring or using weapons of mass destruction and ballistic missiles. We have a strong direct interest in ensuring that such weapons are not acquired by countries or terrorist groups which could use them against Australia. While the mere acquisition of these weapons would not indicate a threat to Australia, their existence within reach of us would complicate and add to the cost of our defence. Furthermore, if one regional country acquires weapons of mass destruction or missile capabilities other regional countries may respond, possibly by developing matching capabilities. Such a sequence would destabilise regional security and further complicate defence planning. The best way to prevent proliferation is to establish effective global regimes, such as the Nuclear Non-Proliferation Treaty, the Chemical Weapons Convention, and the Biological Weapons Convention. Australia will continue to support and if possible strengthen these regimes, and ensure they are fully implemented and effectively verifiable. Defence will continue to promote and implement regional non-proliferation and arms control measures.

10.18 The Defence Organisation provides technical advice, supported by defensive expertise in the Defence Science and Technology Organisation on chemical and biological weapons; provides intelligence on global and regional proliferation activities, to which we give a high priority; and implements strict controls over exports from Australia of materials, equipment and technology which could be used to develop weapons of mass destruction. Drawing on the Defence Science and Technology Organisation's expertise and the Australian Defence Force's engineering skills, Australia has provided personnel for specific non-proliferation efforts in UN operations in Iraq.

10.19 A key priority is limiting the proliferation of ballistic missiles. The Government will continue its efforts to make the Missile Technology Control Regime an effective mechanism for this purpose, and will seek the broadest international commitment to controls on developing and exporting ballistic missile technology. Our involvement in international processes will be complemented by continued efforts to secure acceptance of, and adherence to, this Regime within the region.

10.20 Australia is strongly committed to transparency as a way to build trust and reduce unfounded suspicion and dangerous misunderstandings in strategic affairs, especially within our own region. We seek greater transparency in conventional weapons through initiatives such as the United Nations Conventional Arms Transfer Register. Already, Australia publishes more of its defence planning processes, budget, acquisitions and order of battle than most countries in Asia and the Pacific, although some encouraging trends are developing in this regard.

10.21 We also strongly support the further development of global agreements to help ameliorate the horrors of war, especially agreements that reduce the risks to civilians, including the Inhumane Weapons Convention and the Geneva Conventions and Protocols. Defence personnel are carefully trained in the laws of armed conflict and respect for human rights. Australia is at the forefront internationally in this area.

10.22 Australia will maintain careful controls on its exports of military goods to ensure that they do not conflict with our strategic interests, international obligations and broader foreign policy objectives. Recent new arrangements improve Defence and wider governmental coordination on defence export issues.

10.23 In negotiating international agreements on these issues, we will protect our wider strategic interests and not impose restrictions on the Australian Defence Force which would disadvantage it in conflict. For these reasons, Australia will try to secure the widest possible compliance with and verification of international agreements.

10.24 Support for non-proliferation does not consume substantial Defence resources or impose any specific requirements in terms of force structure or capabilities. The collection and analysis of intelligence on proliferation issues is of course a high priority for our intelligence agencies. As described in Chapter Twelve, the Defence Science and Technology Organisation maintains a modest but valuable level of expertise in chemical and biological weapons technology to assist in developing defensive measures and to support non-proliferation activities.

PART IV

National Defence Support

CHAPTER ELEVEN

DEFENCE AND AUSTRALIAN INDUSTRY

11.1 An effective partnership between the Defence Organisation and Australian industry is essential to Australia's defence. The Government's defence policies for industry outlined in this Chapter will enhance Australia's capacity for defence and are consistent with those policies announced in the recent White Paper on Employment and Growth for the development of a strong national industrial base. Substantial contributions and commitment from both the Defence Organisation and Australian industry will be required to ensure an effective partnership for defence self-reliance into the future.

AUSTRALIAN INDUSTRY

11.2 A strong Australian defence industry is important in sustaining the operational effectiveness of the Australian Defence Force, and ensuring that the Force is able to adapt to changing circumstances. Industry's contribution to our defence effort will become more important as our strategic environment becomes more demanding. Australia's defence industry capacity is supplemented by New Zealand's. Under the terms of the ANZAC Ship Treaty and in accord with closer economic and defence relations, New Zealand industry together with Australian industry are considered as a single defence industrial base. Australian and New Zealand firms are therefore treated equally in our Defence industry policies, except in regard to a small number of high-security or third country collaborative projects.

11.3 The capacity of Australian industry has changed significantly since the mid-1980s. Defence-related industries have benefited from measures the Government has taken to improve the international competitiveness of Australian industry generally. These have included lower tariff barriers, a more internationally competitive tax structure, deregulated transport and communications sectors, improved industrial relations, reinvigorated public sector research and development, and active pursuit of new export markets.

11.4 Defence policy for industry has furthered this process by encouraging efficient production and work practices and export-oriented Australian manufacturing and services. Major projects, such as the Collins Class submarines and ANZAC frigates, have transferred new technologies to Australia and enhanced important skills, including managing complex engineering development projects, systems integration and software engineering. Other projects, such as the Jindalee Operational Radar Network, have developed new technologies indigenous to

Australia. Industry's capabilities have also been strengthened as the Defence Organisation has set demanding standards for quality assurance, project cost and schedule control. At the same time, the Commercial Support Program has opened significant areas of activity to Australian industry.

11.5 In 1994-95, some 80 per cent of Defence's expenditure on facilities, equipment, goods and services will be spent in Australia. This percentage, which represents a major increase over the last decade, results from the high levels of Australian industry involvement in major equipment projects. These projects increased the share of capital equipment expenditure in Australia from 25 per cent in 1984-85 to 64 per cent in 1994-95.

11.6 Through the 1990s, spending in Australia on Defence's requirements from industry will remain high. Projects such as the coastal minehunter, ANZAC frigates and Collins Class submarines will sustain a high level of major capital investment in defence industry. Overall, however, the proportion of capital investment expended in Australia is likely to decline slightly because of the priority accorded to acquiring and upgrading aircraft, an area which offers fewer opportunities for Australian involvement. Aircraft projects will, nevertheless, offer opportunities for the development of important skills and capabilities in avionics and systems integration which are necessary for through-life maintenance support.

11.7 Defence's demand for specific defence goods and services will continue to remain uneven and often too small to sustain individual companies on a competitive basis. Australian companies supplying Defence will have to continue their diversification into other markets, both civil and defence export, for long-term sustainability.

DEFENCE'S INDUSTRY NEEDS

11.8 The Government's priorities for defence industry reflect the need for ready and reliable support for the capabilities of the Australian Defence Force. We need to ensure that we have reliable suppliers of consumable items, such as fuel and ammunition. We also need to ensure a capacity to repair and maintain equipment, including the ability to handle the additional maintenance requirements which would arise in conflict. These requirements underpin the Australian Defence Force's sustainability. As well, Defence requires a capacity to modify and adapt equipment to meet the demands of Australia's environment and strategic circumstances. This includes a capacity for modifying equipment and systems acquired from overseas, optimising them for Australia's environment, and developing them throughout their service life to ensure they keep pace with developments in regional technology and systems. Local modification skills are most important in electronic warfare, sensors and precision weapons, communications, information systems and software.

11.9 The Government also looks to Australian industry to produce major items of equipment for Defence. Major defence equipment will be produced in Australia when it offers value for money, taking account of factors including the ability to meet needs arising from our geographic and strategic environment, the development of a capacity for through-life support and modification, and assurance of uninterrupted supply.

11.10 Australian defence industry needs to possess excellence and flexibility in a range of areas based on our natural environment and geography, our strategic guidance and military concepts, and developments in defence technology. For example, hot and wet conditions in northern Australia require specially constructed facilities, the use of rugged vehicles and long-range communication equipment. Likewise, our emphasis on maritime operations in our sea and air approaches requires very wide area surveillance systems and a variety of sea and air platforms able to sustain high rates of effort over long distances. Our dependence on a small, technology-based, mobile and integrated force requires us to keep abreast and in some cases to lead developments in some areas of defence technology, including software development and systems integration.

11.11 The **Strategic Review, 1993** made explicit the Government's priorities for industry support. It identified the following industry capabilities as most important for Australia's self-reliance in defence:

- combat systems software and support;
- data management and signal processing, including for intelligence and surveillance;

- command, control and communications systems;
- systems integration; and
- repair and maintenance of major weapons and surveillance platforms.

11.12 In all these areas, the important defence-related skills which Australian companies develop will enable them to take advantage of wider commercial opportunities in Australia and in Asia and the Pacific, and to compete for niche business in western Europe and North America.

ENHANCING AUSTRALIAN INDUSTRY'S CONTRIBUTION TO DEFENCE

11.13 The Defence Organisation's relationship with industry has been the subject of review and improvement over the past three years. The 1992 Price **Report on Defence Policy and Industry** emphasised that support from Australian industry was essential for our defence, while making it clear that supporting Australian industry was not a defence objective in its own right. It stressed the importance of a long-term relationship between Defence and industry, focusing on Australia's strategic priorities. It also brought together various initiatives of recent years, including the growing contribution of the Defence Science and Technology Organisation's research and development to Australian firms, and provided a comprehensive overview of the future directions for defence policy for industry.

11.14 The Report established a broad range of actions and directions to focus better each aspect of Defence industry policy. Many of these actions have been implemented, including those providing for better directed export facilitation and the use of specialist trade commissioners in South-East Asia.

11.15 Defence's procurement, especially in capital equipment and through substantial logistic support contracts, has a significant influence on specific defence-related industry capabilities and capacity. Recognising this, the Government will institute a number of changes in its acquisition processes and in the way it seeks to involve industry in supporting Australia's defence. The Government will be guided also by the recommendations of the recent Industry Commission Inquiry into Defence Procurement.

Linking Equipment Acquisition and Through-Life Support

11.16 To focus defence procurement on developing appropriate skills, generic capabilities and capacity in industry, the Government's major defence procurement projects now will specify industry capacity needed to provide sustainable support for the Australian Defence Force. This approach recognises that through-life support is integral to all stages of planning and decision making. Through-life support will be considered in developing an acquisition strategy for each major project, and industry will be advised of the level of support intended to be provided by Defence from internal resources.

11.17 To encourage greater Australian industry involvement in acquisition and through-life support, the Defence Organisation will consider modifying the timing of its defence projects where this improves the continuity of work-flow, encourages the sustainability of high priority skills, and does not jeopardise the capability of the Australian Defence Force. Where separate capital equipment projects share similar technologies, linkages will be established to achieve economies of scale, the benefits of commonality and a more sustainable flow of work to industry.

11.18 Defence will provide industry with the earliest possible advice of capability requirements to allow Australian firms time to develop or contribute to equipment and through-life support solutions. Forward procurement plans will be released as one of the steps to enable this. Increasingly, in areas of rapid technological advance such as complex command and control systems, Defence will seek ways to involve industry more in identifying capability solutions.

Improving Defence Purchasing

11.19 Defence purchasing practices have changed significantly in recent years, and in many areas now set the benchmark for public sector purchasing. These practices will continue to evolve to ensure Defence gets value in the goods and services it buys. While Defence purchasing cannot be as streamlined as commercial sector purchasing because of probity and public accountability requirements, and because many Defence projects are among the largest and most complex of all public sector procurements, the Government ensures that its purchasing practices continue to improve through risk sharing, streamlined procedures and innovative contracting. The Defence Inspector-General will continue to have an important role in ensuring that these improved processes maintain the highest standards of probity.

11.20 The Government will encourage greater use of long-term relationships between Defence and industry. Defence already uses a variety of long-term supplier arrangements including preferred suppliers, Common Use Contracts, arrangements

with major service providers in the telecommunications industry, and strategic alliances between the Defence Science and Technology Organisation and local firms. Moreover, plans for through-life support of major shipbuilding projects will involve construction-phase contractors over long periods.

11.21 The Defence Organisation is at present determining a panel of preferred suppliers for systems integration. Defence will consider establishing long-term supplier relationships in our other high priority areas which are subject to low commercial demand. These arrangements will be evaluated carefully to ensure best international practice and value for money.

11.22 In addition to long-term arrangements, the Defence Organisation will reduce the costs of tendering by reducing requirements for information from industry and improving its evaluation and decision-making timetables. Defence will make greater use of multi-stage tendering and more rapid short-listing. It will give more specific guidance to tenderers on the level of information required at each stage and the evaluation criteria to be used.

11.23 Defence uses functional and performance standards in contracts wherever possible to allow industry to propose the most cost-effective solutions to Defence requirements. This entails early involvement of industry in the design phase.

11.24 Defence will make greater use of commercial specifications. Any use of military specifications will need to be carefully justified, and decided at an early stage of the acquisition process. This will enable a wider range of companies to supply goods to Defence, and will reduce costs both for the supplier and for Defence.

11.25 In recent years, Defence facility acquisition has improved significantly. Business arrangements, construction contracts and property services will continue to evolve, consistent with the Government's Construction Industry Reform Strategy.

11.26 Broader Government purchasing policy will be the sole guide for the procurement of goods and services if Defence is not a dominant customer or has no significant strategic interests. Consequently, Defence will buy its goods and services, particularly in the areas of minor capital equipment and logistics, from Australian firms providing good value products.

Commercial Support

11.27 Following the report to Government in 1990 on **The Defence Force and the Community**, Defence developed and implemented a Commercial Support Program aimed at achieving greater efficiency in its support services by increasing the role of the commercial sector in providing these services. The Program has

allowed Defence to draw more fully for its support on the strengths of the commercial sector and to establish links between Defence and the wider Australian community.

11.28 So far, the Commercial Support Program has yielded net recurring savings of about $98 million annually. Contracts with industry provide a variety of support services in areas such as repair and maintenance and base support. At the same time, the Program has opened many new opportunities to Australian industry. These will help make the companies involved more competitive in seeking further work here and overseas. The Program has enhanced the effectiveness of the Australian Defence Force by freeing some 2,200 military and 980 civilian personnel from non-essential support activities and thereby making more resources available for operational capabilities.

11.29 Defence continues to identify activities for which commercial support is suitable. These activities (known as 'non-core') are in areas where in-house operations do not have to be performed by uniformed personnel or by Defence civilians to meet policy advice or public sector accountability responsibilities. Proposals will continue to be sought from contractors to undertake these activities, which will generally fall in the area of support services. Contract proposals are evaluated against in-house bids on the basis of best value for money.

Improving Communication

11.30 Effective communication ensures that Australian industry and the Defence Organisation can work together to strengthen the national defence support base. Defence seeks from industry the information necessary for it to improve its understanding of Australian industrial capabilities and industry is generally responsive to this need. Recent studies by the Defence Industry Committee provided very helpful data on naval shipbuilding and on the information technology, electronics and communication areas of Australian industry. In turn, Defence provides information to industry on future procurement plans, and sponsors conferences and courses aimed at improving communication and understanding. Working groups, workshops, briefings and informal contacts are also important. In addition, the Defence Industry Committee and its sub-committees provide regular forums for Defence and industry to address the direction of local industry in supporting the Australian Defence Force.

11.31 For Defence, the growing dialogue will focus on areas where defence technology is developing rapidly. In many cases, the commercial sector is driving that development. Areas like computer graphics, for example, often lead developments in defence simulation technology. Increasingly, the Defence Organisation is looking to build on civil developments and is relying on civil standards and systems.

PROMOTING INDUSTRY DEVELOPMENT

11.32 To ensure long-term, sustained involvement in Defence support, Australian firms must be strong and internationally competitive. This requires them to be able to manage intellectual property so they can modify and adapt defence equipment to diversify their products and gain access to local and overseas civil and defence markets.

11.33 Industry can acquire defence-related intellectual property by performing research and development, entering collaborative arrangements with the Defence Science and Technology Organisation, Cooperative Research Centres or others, or entering licensing or other arrangements with overseas sources. Defence will promote these arrangements, including for technology transfer, by placing appropriate conditions on its purchases of equipment from overseas. Following recent policy changes, Defence will pay only for those intellectual property rights that it actually needs, placing less emphasis on Defence ownership of intellectual property generated by industry under Defence contracts. Arrangements with Australian firms for using Defence's intellectual property include a general preference for the provision of exclusive rights to industry, much less emphasis on short-term revenue raising, and an expansion of the use of royalty arrangements.

11.34 Defence also uses a program of development contracts to promote specific capabilities in Australian industry. Defence will improve its Industry Development Program to ensure it promotes those industrial processes which are critical to developing adaptable and versatile defence capabilities. Such contracts will better position companies to compete for the provision of defence equipment and services.

11.35 Australian industry undertakes only limited defence-related research and development. To broaden and strengthen industry's contribution, the Defence Science and Technology Organisation increasingly will interact with industry through arrangements for long-term cooperation managed mainly by its new Industry Support Office. The Defence Science and Technology Organisation's policies and activities will be coordinated closely with and complement defence industry policies and programs (see Chapter Twelve). More generally, in its Requests for Tender, Defence will seek greater local research and development in major projects.

Materiel Cooperation and Defence Exports

11.36 The Government supports and encourages the export of defence products from Australia, within carefully enforced guidelines. These guidelines ensure that such exports are consistent with our wider national interests and obligations. Countries have the right to self-defence, and hence to buy and sell defence equipment. Australia itself is a substantial importer of defence equipment, and recognises that other countries have similar rights to purchase defence equipment for legitimate purposes.

11.37 The development of Australian materiel cooperation projects and defence exports offers significant benefits to Australia. Apart from the direct commercial benefits to industry and the wider economy, defence exports support Australia's strategic interests. They enhance the capability of Australian defence industry, thereby increasing the support available within Australia to the Defence Organisation. They also provide a valuable basis for enhancing our defence relationships with countries in the region as well as our traditional partners.

11.38 The Government strictly controls the export of defence and defence-related goods to ensure that our foreign policy and strategic interests are properly protected. It provides a predictable defence export policy framework. In considering applications for defence export licences, the Government takes account of a range of factors, including the implications of a potential sale for Australia's direct security interests and for global and regional security, our obligations under UN and other international agreements, and the domestic and international benefits of the sale proceeding. The Government does not permit export of defence goods to any country under a mandatory UN arms embargo, to countries whose policies are

hostile to our own, or to countries which seriously violate their citizens' human rights (unless there is no reasonable risk that the items concerned will be used against those citizens). Export proposals are not approved where they may disadvantage Australia militarily, or more generally where foreign and strategic policy interests outweigh export benefits.

11.39 These strict controls have still allowed significant improvement in the time taken to process approvals for exports. In this way, the Government ensures that Australian industry has every opportunity to sell appropriate defence products overseas.

11.40 Our present defence exports are modest. In 1993-94, sales of defence and defence-related goods totalled $70.6 million. Australia is unlikely to become a major exporter of a wide range of defence goods; rather, we will tend to aim at niche markets. Nonetheless, defence industry export markets have grown substantially over recent years, both because Australian manufacturing industry has become more competitive and because the skills and capabilities of our defence industries have been boosted by Australian companies producing equipment under the Government's defence investment program.

11.41 South-East Asia offers particularly important opportunities for materiel cooperation and defence exports. Many countries in the region are undertaking substantial defence re-equipment programs, focusing on higher technology maritime and air capabilities. Australia has long-standing expertise and strong recent experience in these areas as a result of our acquisition programs in warship and submarine construction. We will continue to emphasise the development of cooperative materiel programs in which two or more countries work together to develop, build and maintain defence equipment. Such programs provide opportunities for all parties. Our long-standing defence relationships with many countries in the region provide a strong basis to develop such arrangements.

11.42 The Government will support opportunities for materiel cooperation on a case-by-case basis, and will judge them in the light of the benefits they offer for Australia's defence interests. Especially important will be the prospective benefits of any proposed project for selective interoperability and combined training, and the likely contribution of the project to the development of a sustainable capacity in Australian industry. In some circumstances, we will vary our own acquisition plans marginally to enable collaboration if our national security interests will benefit.

11.43 While we will give regional markets our highest priority for promoting exports and materiel cooperation, we will also support companies which seek defence export opportunities elsewhere, including in markets in Europe and North America. Australian collaboration with our traditional partners is well established, and includes cooperating with the United States in developing the NULKA anti-ship missile decoy and collaborating with New Zealand to build the ANZAC frigates.

11.44 The Government expects Australian firms to take the lead in marketing and exporting defence products. Nonetheless, as there are clear benefits to Australia's defence interests from an expanded defence export market, the Government will maintain an active defence export facilitation program. The development of export markets will require close cooperation between the Government and Australian industry. The Government will consult Australian industry to develop and refine an export and materiel cooperation strategy according to overall defence priorities and its export control framework. This strategy will focus on the longer term strategic benefits from defence exports, especially in our nearer region, rather than on short-term returns. Defence will disseminate information to industry and identify export opportunities in the region, and coordinate trials on products developed for export by Australian firms.

CHAPTER TWELVE

SCIENCE AND TECHNOLOGY

12.1 Australia relies for its defence on advanced technology and consequently needs a high level of scientific and technological advice and support. The Government has four broad objectives for this: to position Australia to exploit future developments in technology which show promise for defence applications; to ensure that Australia is an informed buyer of equipment; to develop new capabilities as required; and to support existing capabilities by increasing operational performance and reducing the costs of ownership, including through-life extension programs.

12.2 Priorities for Australian defence research and development reflect a wide range of factors. While Australia imports most of the technology embedded in its defence capabilities, some aspects of our environment are sufficiently different from those of other countries to demand unique equipment and technology. There is a need for Australia itself to be able to provide the technological support essential for Australian Defence Force operations and to understand comprehensively the technological strengths and weaknesses of our capabilities. Moreover, we must keep abreast of continuing advances in defence-relevant technology so that we will be able to defend Australia into the future.

SCIENCE, TECHNOLOGY AND NATIONAL DEFENCE

12.3 Managing defence science and technology to meet Australia's priorities for defence and national security presents a number of challenges. Defence must reconcile the demands of various customer groups in the Organisation, respond to changes in our strategic circumstances and strike a balance between shorter and longer term research.

12.4 Australia's move toward a more innovative and dynamic national support base, the increased availability of advanced weapon systems at a global level, continuing advances in defence technology and the continuing need to minimise costs will all increase the demands on defence science and technology. In this environment, priorities for Australian research and development will reflect the priorities for capability development described in Chapter Five.

12.5 In this respect, there will be several recurring themes. These will include support for intelligence, surveillance, electronic warfare, communications, information technology and exploitation of environmental information, including

on acoustics and electromagnetic propagation. They will also include signature management, operational research, combat modelling and simulation, an approach which stresses the importance of overall systems and the human dimension, and a sufficient knowledge of advanced materials to provide through-life support to modern platforms. There will be a need to guard against the vulnerability of our own acoustic and electronic based systems while being able to exploit an adversary's vulnerabilities.

12.6 Just as force development is a long-term process, so too is the process for developing the high levels of skill and experience required for defence science. Our priorities for defence research and development need to look well ahead. Forward looking enabling research must be adequately funded. Such research will focus on supporting the Government's priorities for capability development, and catering for our special national demands, including those of our unique environment.

12.7 Considerations of science and technology are integral to the formative stages of each major defence project and the concepts behind it. Authoritative advice on science and technology will increasingly assist the Defence Organisation to specify its operational and technical needs, evaluate proposals, and identify the risks associated with particular acquisition strategies. The Government will continue to need a high level of scientific and technological advice to enable it to be a wise buyer, user and maintainer of equipment.

THE DEFENCE SCIENCE AND TECHNOLOGY ORGANISATION

12.8 Defence's demands for scientific and technological advice and support are thus extensive and specialised. These specialist demands are met principally by the Defence Science and Technology Organisation. The advice and support this Organisation provides need to have many characteristics: professional, impartial and well informed about the specialised application of science and technology to the defence arena; focused on Australia's unique needs; responsive both to Defence's longer term needs and to priority demands that might arise at short notice; and based on the coordination and integration of advice from the range of relevant sources in Australia and overseas. These characteristics require the Defence Science and Technology Organisation to be an integral part of our one Defence Organisation.

12.9 The Organisation is Australia's second largest Government funded research and development body, and its budget represents just over 2 per cent of Australia's annual defence expenditure. Its research and development activity is now structured around two laboratories: Aeronautical and Maritime Research, and Electronics and Surveillance Research. When current structural changes are completed in 1996, the Defence Science and Technology Organisation will employ

about 2600 people, including between 1200 and 1300 scientists and engineers with world-class expertise in a range of disciplines (outlined in Table 12-1). These skills provide the basis that allows it also to support Australia's regional and global security interests, and to interact with industry.

Table 12-1 Areas of Expertise in the Defence Science and Technology Organisation

Acoustics	Human factors	Sensor devices & components
Communication networks	Image processing	Signal processing & analysis
Computational mechanics	Information science	Signal propagation
Computer modelling	Information security	Signals acquisition
Data fusion	Infrared sensors	Simulation & simulators
Data representation	Materials science	Sonar
Decision-making aids	Operational analysis	Systems integration
Electromagnetics	Platform signature measurement	Target classification
Electronic countermeasures	Platform signature reduction	Target detection & tracking
Energy storage	Platform structures	Toxicology
Environmental science	Platform survivability	Trials planning & analysis
Exercise & mission analysis	Radar	Wargaming
Explosives & effects	Radio communications	Weapon propulsion & ballistics
Gas turbine technology	Satellite imagery	Weapon effectiveness & safety
Health and food science		

12.10 The Government's policies for Defence emphasise the need for effective management of its research and development effort. The Defence Science and Technology Organisation's management processes are designed to facilitate decisions on resource allocation, and to demonstrate the relevance of its activities and the transparency of its use of resources. Research and development is coordinated across five broad customer areas: Maritime, Land, Air, Policy and Command, and self-sponsored enabling research. The mechanisms that exist to ensure responsiveness to customer needs in each of these areas, and that facilitate review at the Portfolio level, give confidence that the Organisation's activities will evolve to meet future challenges.

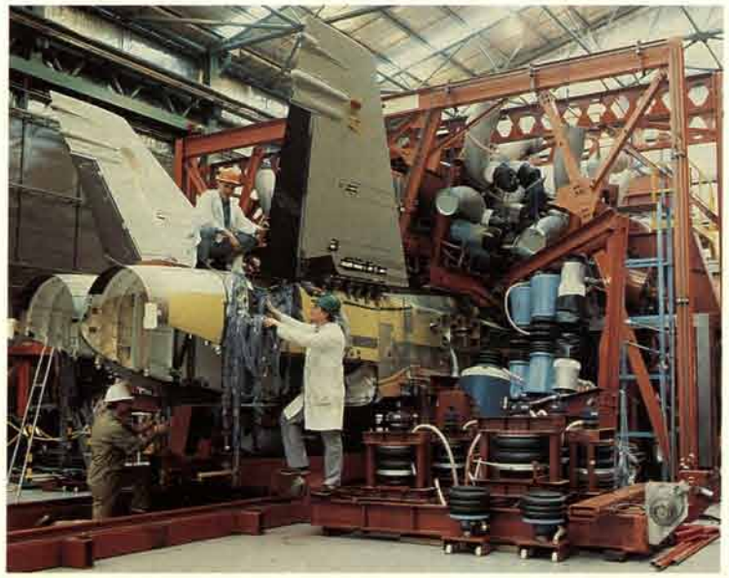
Defence Science and the Australian Defence Force

12.11 The Defence Science and Technology Organisation has contributed significantly to the development of some of our most important defence capabilities. For example, research and development it performed over many years enabled the development of the Jindalee Operational Radar Network. Many aspects of the particular science and technology in this unique system were not available elsewhere

in the world, and the long lead-times for its development meant that no other source of science and technology could maintain the constancy of purpose and resources needed to develop it. Having acquired world class expertise in this area, the Organisation will be able to adapt the system to meet future challenges and to investigate related surveillance technologies which also show promise.

12.12 The Defence Science and Technology Organisation has also developed and introduced specialised welding technology, and designed acoustic coatings needed to optimise the performance of the Collins Class submarine in our unique operating environment. Thus the Organisation has assisted in constructing the world's most sophisticated conventional submarine. Moreover, just as the Organisation provided extensive through-life support for the Oberon Class submarines, so will it support the Collins Class once they enter operational service.

12.13 Defence research and development has also been essential for the development of towed acoustic arrays for surveillance, airborne lasers for hydrographic survey and the NULKA expendable decoy. Moreover, its development of composite bonded aircraft repair (used on aircraft such as the F111, C130, Macchi MB326H and P3C), airframe fatigue testing (F/A-18 and PC9, and methods to repair our guided-missile frigates (FFGs) have underpinned important Defence equipment life extension programs. Further, the Defence Science and Technology Organisation's achievements in broad-band, robust and reliable communications, assisted by its cooperation with other telecommunications bodies in Australia, have guided the thrust of the Defence Communications Corporate Plan.



12.14 The benefits of defence science and technology go well beyond the development of unique Australian defence capabilities. By undertaking research and development in Australia we acquire important knowledge in areas such as specialised software which enables us to adapt our key systems as Australia's strategic circumstances change. By promoting the commercialisation of defence science and technology in a range of areas, the Government ensures that the Defence Science and Technology Organisation makes a significant contribution to the international competitiveness of Australian industry.

OTHER SOURCES OF SCIENCE AND TECHNOLOGY

12.15 Within Defence each Service maintains a small group with expertise for specialist engineering development, test and evaluation. There are also areas within Defence that perform occupational health research. The work of these organisations complements that of the Defence Science and Technology Organisation, and their control and tasking is vested in their respective single Services.

12.16 Defence shares a Memorandum of Understanding with the Commonwealth Scientific and Industrial Research Organisation, and draws upon its work in areas such as environmental data collection which are directly relevant to the development and support of the Australian Defence Force. Australian Universities undertake significant defence-relevant scientific research under technical support contracts and the Government plans to increase its funding for such contracts over the next three to five years. Defence is also a member of several of the Government's Cooperative Research Centres, which have been established to foster interaction between industry, public sector research and Australia's tertiary institutions.

12.17 Australian industry undertakes a limited amount of research and development for defence purposes, and some of this is funded directly by Defence through mechanisms such as the Defence Industry Development Program. Increasing the amount of defence-relevant research and development undertaken by Australian industry is an important long-term objective.

12.18 While the Government will increase its use of commercial and other Australian sources of science and technology these bodies have different objectives from Defence and a limited familiarity with our military environment. Defence industry, for example, will often have a more substantial role in the later stages of development and production.

DEFENCE SCIENCE AND AUSTRALIAN INDUSTRY

12.19 Effective and efficient collaborative links between the Defence Science and Technology Organisation and Australian industry are essential to promote the adaptability and versatility of the Australian Defence Force. Australian firms have access to new technologies developed locally and overseas, and business opportunities in local and international defence and civil markets. These links also enhance the depth and diversity of defence technological expertise in Australia, and improve the capacity of local sources to support Defence on an internationally competitive basis. The Defence Science and Technology Organisation's interaction with industry will grow, particularly as commercial markets drive technological developments in fields such as communications and information technology, and as Defence looks increasingly for technology transfer from these markets.

12.20 Defence expenditure on science and technology must primarily enhance the effectiveness of the national defence and security effort. Thus, the first broad objective of the Defence Science and Technology Organisation's interaction with Australian industry is to help industry become better able to support the capabilities we need to defend Australia. Such interaction tends to focus on areas most strongly related to Australian defence self-reliance and to the unique features of our operating environment, as well as in support of major platforms.

12.21 A second objective is to contribute through industry to national wealth creation, including through the support of exports. Together, these objectives support the Government's aim of assisting the development of efficient, internationally competitive industries in Australia through technological innovation. It is also important that industry recognises the part it has to play in this process.

12.22 The Defence Science and Technology Organisation has a unique place within the national support base, so Defence will take several factors into account when pursuing interaction with industry in the area of research and development. Specifically, commercial activity is secondary to support by defence science to the rest of the Defence Organisation; it is a by-product of, and does not drive, the Defence Science and Technology Organisation's focus on support for defending Australia, in both the shorter and longer term. While the aim is not necessarily for the Defence Science and Technology Organisation to make a profit, it is important that, balanced over time and tasks, commercial activities should not be a significant net drain on allocated funds or scarce staff skills. National security considerations and international defence data exchange agreements may also constrain the Organisation's commercial involvement.

12.23 The Defence Science and Technology Organisation's interaction with industry should not compromise its ability to provide an impartial evaluation of competitive tenders in future procurements. This requires careful management

and at times can constrain the extent of industry interaction. Every effort is made to minimise the effects of any such constraints. Industry is encouraged to become involved in defence research and development in its early phases so that commercial opportunities can be identified and exploited as early as possible. Such involvement is facilitated through industry alliances, which are formal long-term relationships between Defence and external agencies to promote mutual objectives in technology transfer, the exploitation of research and development and the promotion of defence industries. These alliances promote Government policies which seek greater national benefit from publicly funded research and development, and encourage industry to play a greater role in defence science and technology.

INTERNATIONAL COOPERATION IN SCIENCE AND TECHNOLOGY

12.24 Australia benefits in many ways from the Government's interaction in defence science with Australia's friends and allies in North America and Europe. These connections comprise, in particular, The Technical Cooperation Program involving the United States, the United Kingdom, Canada, New Zealand and Australia, and our separate bilateral arrangements with each of these countries. Additionally, the Government has negotiated formal bilateral arrangements with France and Sweden, and there are less formal arrangements with a number of other European countries.

12.25 Collaborative arrangements will continue to concentrate on areas of mutual priority and benefit. Although international cooperation in defence science faces pressures from the move toward dual-use technologies for commercial benefit and the search for international competitiveness in high-technology products, it is important to recognise that our partners are increasingly focusing on conflict at the regional level rather than the global level. Their priorities and those of Australia are thus converging. Equally, pressures on defence budgets will encourage greater international cooperation in defence science through the sharing of associated costs. Australia would be considerably disadvantaged if this international cooperation were to diminish significantly, so we will continue to contribute to these arrangements and foster the trust and mutual respect on which they depend.

Defence Science and Regional Engagement

12.26 Defence science and technology has an important role in regional defence cooperation, especially with the countries of South-East Asia. It provides a strong basis for closer contact on a wide range of defence issues and can be an important factor in defence industry collaboration. Australian and regional armed forces face comparable challenges in applying science and technology to their operating environments, and this facilitates cooperation.

12.27 Many countries in the region are increasing their emphasis on technically advanced defence equipment, and there is also an increased commitment to regional security and shared strategic objectives. These factors, together with Australia's demonstrated achievements in applying research and development to local needs, give us unique opportunities to pursue cooperative defence science activities with our neighbours. The Agreement for Cooperation in Defence Science between Australia and Singapore is a good example of this.

12.28 Our ability to contribute to cooperative arrangements results from our skills in supporting a high technology defence force designed largely for operations in the tropics. Many areas show promise for cooperation. Our contributions could include sharing our understanding of modern defence communications, including electro-magnetic propagation in equatorial regions, the effect of tropical climates on degrading the materials used in modern defence equipment, and the fatigue management and life extension of military aircraft. The Government will continue to look for appropriate opportunities to cooperate in these and other areas.

12.29 In view of the importance of Australia's links with other nations, our commitments to various international agreements, and the need for a dynamic and innovative national support base, decisions on suitable areas for scientific cooperation will need to be made case by case. These decisions will take into account broad issues such as how important particular technologies are to the effectiveness of Australia's and our prospective partners' forces; what benefits for Defence and our wider national interests will accrue from cooperation in particular areas; who the prospective partner in a cooperative venture is; whether the technology in question has offensive or defensive applications; and whether the technology is commercially sensitive.

Support for Global Security

12.30 The Government's strong opposition to the proliferation of weapons of mass destruction, and its support for a range of multinational security operations, were affirmed in Chapter Ten. Defence science has an important contribution to make in both of these areas.

12.31 The Government has a modest program of research into defence against nuclear, biological and chemical weapons. The primary purpose of this work is to ensure a sufficient base of knowledge to allow the protection of Australian Defence Force personnel, including when they are deployed overseas in support of UN or other multinational operations. This work also allows the Defence Science and Technology Organisation to support the Department of Foreign Affairs and Trade on non-proliferation issues.

12.32 The Government will examine any special needs for scientific and technological support that multinational security operations might demand from Australia, although it will be important to focus our contribution on areas which also support our national defence needs. Thus, for example, work will continue on methods to counter land mines that are difficult to detect, as this is relevant to the defence of Australia and to multinational security and humanitarian operations. A further consideration is that research and development in support of UN operations could be an important vehicle for international collaboration, including with our regional neighbours.

12.33 Finally, another area with potential for international scientific cooperation, especially with the United States, concerns defence against ballistic missiles. Such work would reflect the Government's policy of opposing the proliferation of such weapons.

MANAGING CHANGE IN DEFENCE SCIENCE

12.34 Over recent years there have been significant changes in our approach to defence science in Australia, and to the structure and management of the Defence Science and Technology Organisation. These include an increase in the number of professional scientific staff in Defence, an enhanced level of interaction with industry and other Australian sources of research and development, the restructuring of the Organisation into a smaller number of laboratories and research and development divisions, and significantly reduced expenditure on support areas, achieved in part through the Commercial Support Program. These efficiency gains have been a major achievement.

12.35 It is important that mechanisms be in place to facilitate further change, as and when necessary, although not at such a pace as to discourage high-quality staff from seeking and maintaining their careers in defence science. The new arrangements for setting research and development priorities will give confidence that defence science in Australia reflects our needs and is adapting to, and anticipating, the changing environment, and that overall funding is appropriate. It will be important to embed and build on these mechanisms for setting and demonstrating priorities, relevance and productivity, including through improved evaluative mechanisms for individual research tasks, assessing the expected benefits and outcomes within the framework of overall Defence policies and priorities.

12.36 The Government expects the Defence Science and Technology Organisation to continue to increase its involvement with industry and to seek overall improvements in productivity. The Organisation will also increase its interaction with the countries of our region, and sustain the benefits of interactions with our traditional friends and allies.

12.37 To achieve these objectives, the Government will pay close attention to the needs of the Defence Science and Technology Organisation's staff, including their career and development needs. For its scientists and engineers in particular, it will aim to provide a professional and physical environment which is conducive to high personal performance, responsiveness, adaptability, scientific excellence and efficiency. In this way, the Government will ensure that defence science will be well positioned to provide the scientific and technological services on which our national security so critically depends, both now and for the future.

CHAPTER THIRTEEN

DEFENCE AND THE AUSTRALIAN COMMUNITY

13.1 Successful management of our defence effort requires the closest possible engagement with the Australian community. It requires the support and commitment of the Australian people in peace, and even more in a time of emergency. That support takes many forms. First and foremost, our Australian Defence Force personnel are recruited from the Australian community and remain part of it. The Government therefore invests considerable effort in ensuring the community's awareness and understanding of the Australian Defence Force to ensure the continued availability of suitable recruits. Public understanding of and confidence in the Australian Defence Force in peace is also a means of ensuring the support of the community which would be essential for our defence effort in a time of conflict.

13.2 As outlined in the preceding Chapters, support from the industrial and commercial sectors is also essential to our defence efforts. This involves the manufacture and supply of essential goods and equipment by Australian industry; excellence in research and development skills which enable our defence effort to be adapted, possibly in significant ways, to respond to developments which could arise in the longer term; and the capacity to keep our force elements in the field with timely repair and maintenance. The Commercial Support Program initiated by the Government in 1992 aims to ensure greater involvement of commercial contractors in defence-related activities in peace and thus to strengthen the capacity to provide reliable and flexible logistic support in a time of conflict.

13.3 The Australian Defence Force is also dependent on civil infrastructure such as roads, airfields, ports and communications networks, and the people who manage and operate them. Civil communications bearers provide the backbone of the Defence network. Close interaction between Defence and key transport and communications organisations in peace provides the basis for a successful partnership in a time of conflict. To facilitate planning in this area, Memoranda of Agreement have been concluded with key transport organisations to ensure that important civil assets and infrastructure would be available in an emergency.

13.4 The management of our national effort during conflict would involve a range of Commonwealth and State agencies. The Government has mechanisms in place to ensure that this effort would be coordinated fully. Major defence exercises test and refine these arrangements by involving other agencies in planning and preparation.

13.5 In the event of conflict, the Australian community could be a valuable source of assistance and information about developments in their local areas. Mechanisms are in place to ensure we can draw fully on the knowledge of local communities - for example, through the existence of the Regional Force Surveillance Units which have established close links with the people and organisations in northern Australia. Navy's responsibility for control of shipping in a conflict and its use of Reserve personnel for this task establish important links in peace. Organisations such as Coastwatch are also an important source of surveillance information, and established links with Defence ensure it will be available in a time of emergency. As well, both Navy and Air Force have voluntary structures in place which enable members of the community to report items of interest to surveillance and intelligence authorities.

SUPPORTING THE CIVIL COMMUNITY

13.6 The partnership between the Defence Organisation and the community not only ensures that vital support is available for our national defence effort in peace and in times of need but also provides wider benefits to the Australian community through activities such as emergency relief and counter-terrorist support.

Disaster Relief

13.7 The Australian Defence Force is a body of well trained and disciplined people who can be deployed quickly to remote areas of the country - or overseas - and can sustain themselves for lengthy periods with integral logistic support. The Force possesses a substantial capacity to provide its own emergency accommodation, communications, transport by sea, air and road, and engineering support. It thus has the capacity in peace to provide important backup to Australia's largely volunteer civil emergency organisations.

13.8 The Australian Defence Force has an impressive record of assisting the civil community in major disaster relief. Military aircraft, ships and personnel are deployed to assist with the evacuation of civilians from devastated areas, to participate in critical clean-up operations and to provide emergency power, communications and shelter. The Australian Defence Force has also frequently contributed to disaster relief efforts overseas and will continue to do so in the future, especially for areas in the South-West Pacific and South-East Asia which are vulnerable to cyclones and earthquakes.

13.9 Defence personnel also assist frequently with bushfire control measures and flood relief in Australia. This type of assistance to the community is important as it demonstrates the valuable contribution which the Defence Organisation can make in a time of national emergency. It also serves to establish important links with civil authorities which would be essential in the event of conflict. A further benefit is the positive public image of the Organisation which is generated from such activity, aiding both recruitment and general support for Defence activities.

Civil Defence

13.10 Within the Defence Organisation, Emergency Management Australia provides training and national policy coordination for the various State and Federal bodies charged with responding to civil emergencies. It is currently developing a national policy for emergency management which emphasises coordinating prevention and restoration rather than just the emergency response. Emergency Management Australia is also responsible for coordinating Australia's approach to civil defence in times of conflict. It conducts exercises with the various agencies involved to maintain their levels of preparedness.

Search and Rescue

13.11 Defence capabilities are an important element of our national search and rescue effort. Defence has the capacity for sustained long-range sea and air patrols, surveillance and rescue activity in difficult and remote locations, and these resources are frequently committed to assist in civilian search and rescue, both in Australia and in our nearer region.

Counter-Terrorism

13.12 Australia has been affected less by terrorism than many other parts of the world. Nevertheless, significant isolated acts of terrorism have occurred here over the past two decades and, given the nature of terrorism, the speed of international travel and communication, and the burgeoning of activist movements around the world, the possibility of terrorist acts on our territory can never be ruled out. High profile visitors, and events such as the Olympic Games in 2000, will require heightened states of alert.

13.13 The Special Air Service Regiment maintains a highly respected capacity for counter-terrorist operations and works closely with State authorities in this area. Australia's training facilities for counter-terrorist operations are among the most sophisticated in the world. This enables us to offer some training opportunities to forces from neighbouring countries in areas such as responding to aircraft hijack. The Government would also consider offering counter-terrorist assistance to our neighbours in situations in which Australian nationals were involved.

Customs, Immigration and Fishing Zone Surveillance

13.14 While other Government agencies are responsible for customs, immigration and law enforcement in Australia's Fishing Zone, Defence provides significant support for these activities. For example, P3C aircraft and Fremantle Class patrol boats carry out surveillance and interception of suspected illegal immigrants, fishing vessels and drug smugglers in support of other Government agencies, and in close liaison with Coastwatch.

13.15 Defence's surveillance capabilities also enable it to contribute in peace to the work of other Government agencies in the areas of fisheries, customs and immigration. The Defence contribution in effect reduces the costs these agencies would otherwise incur in undertaking these important national tasks. For example, the Jindalee Operational Radar Network is not only a valuable asset for defence tasks but can also make a significant contribution to customs detection of ships and aircraft approaching remote areas of our continent. While Defence assets are tasked effectively in particular fisheries, customs and immigration operations and in emergencies, the high operating and depreciation costs of Defence aircraft and ships makes them inappropriate for more routine tasking.

Other Support

13.16 The Defence Organisation provides valuable support to the Australian community in a variety of other ways. Its provision of air traffic control and airfield facilities at some airfields benefits civil air travellers. Mapping and charting work done by the Australian Defence Force is vital to merchant shipping, industry and the community at large. In its research and development of electronics, materials, aeronautics, opto-electronics, oceanography and sensors, the Defence Science and Technology Organisation interacts strongly with the wider scientific community as well as with local industries.

13.17 Should commercial transport be impracticable, the Australian Defence Force possesses the transport and other capabilities to assist in the evacuation of Australians caught up in natural disasters or civil disturbances overseas.

13.18 Defence Force bomb disposal experts are always available to assist civil authorities in dealing with suspected problems of unexploded ordnance. They have also provided assistance recently to dispose of Second World War ordnance in some Pacific Island nations.

Funding Defence's Contribution to the Community

13.19 Elements of the Defence Organisation are frequently called upon to provide support for the civil community. Although Defence's record of responding is widely recognised and respected, the demands often involve significant costs, and at times risk diverting resources needed for defence tasks or for maintaining required levels of preparedness. Every effort will continue to be made to assist the community where practicable, though the Australian Defence Force is not able to meet all the requests it receives and those relating to non-emergency situations will often need to be declined.

13.20 The Government will continue to commit significant defence resources to high priority civil tasks where the Australian Defence Force's capabilities enable it to make an important contribution, and where such contributions are not open-ended. Just as no financial reimbursement will be sought by Defence for this contribution, or for providing services such as customs surveillance, so the Defence Organisation will continue to be exempt generally from charges in relation to its use of infrastructure such as ports and roads.

CONTRIBUTING TO THE NATIONAL ECONOMY

13.21 The Defence Organisation provides many benefits to the community which go well beyond the direct employment of some 80,000 Australians and the indirect employment of many more. It provides an important contribution to local industry and to national training and development.

13.22 Over recent decades Defence has relied increasingly on Australian industry for support. In 1994-95 the Government will spend some five billion dollars in Australia on the purchase of defence goods and services, and major equipment and facilities. As well as directly benefiting national industry, this investment provides opportunities for technology transfer from overseas and for the establishment of industries which are able to offer support for regional defence forces and the local community (through spin-off applications). The major Naval projects for Collins Class submarines, ANZAC frigates and patrol boats have been the backbone of local ship-building, enabling that industry to compete for wider commercial and defence opportunities in Australia and overseas. Major projects for trucks and communications equipment have also been important for local industry, as have various information systems projects.

13.23 Defence investment in facilities and housing provides over $850 million annually to Australia's building industry, while continuous payments to major Australian transport, petroleum, aeronautical maintenance, marine maintenance, and telecommunications companies are also significant in national terms.

13.24 The Government has indicated its intention to develop further Australia's industry and support base outside the traditional centres in the south-east of the country, and Defence often leads this process of regional development. In north Queensland, the Northern Territory and Western Australia, the growing Defence presence is providing opportunities for growth in the local civil support bases. The major Army base near Palmerston and the Air Force base at Tindal in the Northern Territory, Jindalee Operational Radar Network installations in remote parts of Australia, and major investment programs such as construction of submarines in Adelaide, patrol boats in Perth and minehunters in Newcastle, together with

munitions manufacture in Benalla, are some examples of the Government's efforts to encourage the geographic diversification of the national support base through defence industry decisions.

13.25 The Defence Organisation is also a leader in national training and education, providing not just specialist military capacities but a variety of skills relevant in the wider community - including specialist technical training, pilots qualified for commercial airline operations, language skills and university education. Overall, the breadth of education and broadening of experience which the Defence Organisation provides to many young people from all parts of Australia is an important source of trained people for the wider national economy.

SUPPORTING WIDER INTERESTS IN THE REGION

13.26 Defence links with Asia and the Pacific not only give us the capacity to promote defence policy interests, but also to support many of Australia's wider national interests in the region. For example, Defence mapping and charting activities contribute to national and regional maritime trade interests, while assistance to neighbouring nations through disaster relief and the provision of construction or other assistance contributes to Australia's standing as a responsible nation. Defence can also bring material benefits to Australia including, for example, by opening up substantial areas for cooperation in defence industry, and opportunities for Australia to encourage international companies to regard Australia as a logical base for their regional activities. Economic links established in the defence sphere can also serve as a catalyst for wider engagement with our neighbours.

DEFENCE AND THE ENVIRONMENT

13.27 Because of the nature of military operations, Australian Defence Force activities can have an impact on Australia's natural environment. The Government is nevertheless strongly committed to Defence undertaking its operations and activities in an ecologically responsible manner. As the Commonwealth's major land user, the Defence Organisation has specific responsibilities within the Commonwealth Decade of Landcare Plan. Environmental Management Plans are developed for all Defence properties, with emphasis on sensitive training areas; Pollution Audits are performed at all Defence establishments; and each major Defence facility project includes an environmental impact statement which also identifies Aboriginal sacred sites and other heritage considerations.

13.28 Significant resources are devoted to controlling pollution from Australian Defence Force vessels at sea and to land management, particularly in the buffer

zones surrounding our training ranges and military bases. In feature areas such as around Sydney Harbour, Garden Island in Western Australia and the entrance to Port Phillip Bay, Defence has over several generations preserved a number of natural areas which might otherwise have been lost to the community.

13.29 The Defence record on the environment was endorsed in the recent report of the **Commission of Inquiry into the Shoalwater Bay Training Area** which concluded that natural and cultural heritage values in the area had been maintained overall. The Government has decided that the Australian Defence Force will have exclusive use of the area. At Stirling Naval Base, Defence works closely with the Commonwealth Scientific and Industrial Research Organisation and the Western Australian Department of Conservation and Land Management to manage an area of sensitive flora and fauna which is now being nominated for inclusion on the Register of the National Estate. At weapon firing ranges damage is unavoidable but is limited to small and carefully managed impact zones surrounded by large buffer areas which are carefully managed to protect flora and fauna in a natural environment. Defence also preserves a number of heritage buildings such as Victoria Barracks in Sydney and Melbourne.

13.30 The Defence Organisation also has a comprehensive Energy Management Plan which seeks to ensure efficient use of resources, elimination of waste and avoidance of damage to the environment. The plan seeks to implement Government policy for stabilising greenhouse gas emissions, in particular, by setting a goal of stabilising emissions of such gases by 2000 at the 1988 level, and of reducing emissions by a further 20 per cent by 2005. It is supported by corporate information management systems which maintain data on the level and nature of energy consumption, allowing progress to be monitored in achieving energy targets for buildings and commercial vehicles.

13.31 The equipment, organisational strength and personnel skills which Defence acquires and maintains to enable it to meet its responsibilities for defending Australia provide it with considerable capacity to respond to other national needs. These activities do not determine the force structure, but Defence's ability to undertake them demonstrates the versatility of its capabilities and its value to the community.

PART V

Funding Our Defence Effort

CHAPTER FOURTEEN

RESOURCES AND PROGRAMMING

14.1 A strong national defence force which can ensure the security of present and future generations of Australians must be paid for. Costs cannot be deferred in the false hope of making up ground if our situation deteriorates. The lead times to develop defence capabilities are far too long to permit us that luxury. Equally, the resources devoted to Defence must support a level of capability with which we could be confident of victory over aggression. The Government accepts this reality and the obligations which go with it.

14.2 Defence therefore represents a major financial commitment for the nation and the Government. The 1994-95 Defence Budget of $9,637 million constitutes about 8 per cent of Commonwealth outlays, and just over 2 per cent of Australia's Gross Domestic Product. Australians have a right to expect Defence to use this funding wisely. Defence recognises this expectation and has put in place a number of major reforms in recent years. These have involved major productivity increases throughout the Defence Organisation, including radical restructuring and substantial personnel reductions to minimise administrative and support overheads without reducing capabilities. With the savings generated it has been possible to continue the major defence investment program foreshadowed in **The Defence of Australia, 1987**, despite slightly reduced Defence spending in more recent years in response to broader economic and budgetary pressures.

14.3 As strategic circumstances become more demanding, our Defence budget will come under increasing pressure. One indication of this is the trend in defence spending in our region. Defence spending has fallen sharply in many parts of the world and has been relatively constant in Australia, but in Asia it is growing in many countries by 5 per cent or more each year, and is likely to continue to do so. We will need to continue to develop our defence force structure to maintain the effectiveness of those capabilities which are vital to our security.

14.4 We will continue to seek further efficiencies, and expect they will cover some proportion of the additional demands on Defence, without additional funding. The scope for further efficiencies will decrease, however, as the more fruitful reforms are completed. Funding at present levels, even with further retained savings and efficiencies, will not support the program needed to maintain the effectiveness of our Defence capabilities. For the next few years defence expenditure at presently programmed levels will allow the plans and projects outlined in this White Paper to proceed. Beyond that, modest real increases in Defence expenditure will be

necessary to sustain the defence investment program needed to address obsolescence and to meet the technological demands of an increasingly sophisticated regional security environment.

14.5 On present economic forecasts and strategic projections, the Defence budget will not need to grow faster than the economy as a whole. Some modest real growth in Defence spending will, however, be needed later this decade and in the following decade. Over this period, the Government plans that defence spending will be sustained at approximately 2 per cent of Gross Domestic Product.

FUNDING DEFENCE CAPABILITIES

14.6 The types of capabilities Defence maintains are determined firstly, by our geography and secondly, by the types of capabilities which could credibly be used against us in our sea and air approaches and on our territory. As regional force structures develop we will need to enhance our capabilities if we are to maintain the relative effectiveness of our Force. If we fail to make appropriate enhancements to the force structure, our capacity to defend Australia will be eroded.

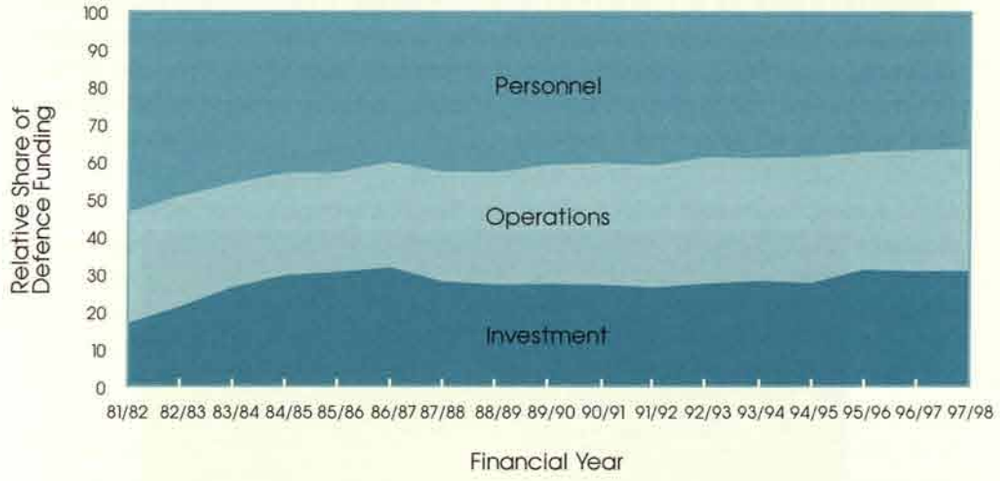
14.7 The major elements of any capability are our people, the training and preparedness achieved through operations, support and other activities, and our equipment and facilities. These give rise to the three principal categories of Defence spending: investment, operations and personnel. In 1994-95, investment will account for about 28 per cent of Defence spending, personnel about 39 per cent, and operating costs about 33 per cent. These proportions are expected to remain broadly at these levels over the next five years.

Investment

14.8 In the current strategic circumstances, the Government will continue to sustain a high level of investment in Defence equipment and facilities. This is because these assets take many years to be acquired and brought into operational service, and hence we must continue to develop them even though conflict is unlikely in the short to medium term. Modest real growth will be needed to achieve the program of investment set out in this White Paper.

14.9 We need also to sustain a level of expenditure on personnel and operations which ensures we can maintain effective capabilities. For this reason, it is not practicable to sustain equipment and facility investment much above 28-30 per cent of the Defence budget without additional funding for specific initiatives. Investment spending has been sustained at around 28 per cent since 1987, having risen from below 20 per cent in the early 1980s (as shown in Figure 14-1).

Figure 14-1: The Break-up of Defence Expenditure



14.10 The most significant element of investment is new major capital equipment, which absorbs about 20 per cent of the Defence budget. To the greatest extent possible, further real growth in the Defence budget will be devoted to this. The costs of acquiring new high technology equipment are expected to continue to increase. An important element of that increase will be the growing sophistication of new equipment.

14.11 The force structure developments considered necessary for the defence of Australia can be met with modest real growth in expenditure on major equipment over the next fifteen years. In the medium term, efficiency measures are unlikely to be adequate to fund such growth as staff remuneration will absorb most gains, and hence some modest real growth in total Defence expenditure will be needed.

14.12 In the longer term, investment pressures are expected to increase. By about 2010, plans will need to be in place to maintain essential capabilities as a number of major Defence assets approach obsolescence, including the F/A-18, F111 and P3C aircraft, and as other assets require upgrading, including the Jindalee Operational Radar Network, Collins Class submarines and ANZAC frigates. Great demands will be placed on Defence budgets at that time if essential capabilities are to be maintained. It is clearly not practicable to defer the investment proposed in this White Paper. On the contrary, we must continue to seek ways over the next fifteen years to reduce the investment bulge which is expected to emerge from about 2010 - for example, by means such as the recent purchase of F111G aircraft which will help to defer the need to replace the F111 fleet.

14.13 In recent years, investment in facilities has been given high priority to develop defence infrastructure in northern and Western Australia, including completing a network of northern airfields, relocating Army elements to the north and establishing two-ocean basing for the Navy, as well as improving housing for Defence personnel. At present, facilities investment takes about 5 per cent of the Defence budget, but as projects are completed this level is expected to fall slightly later in the decade to around 4 per cent.

Operations

14.14 The operations element of the Defence budget covers all the costs of sustaining capabilities. This encompasses running costs for equipment and facilities, including fuel, repair and maintenance, ammunition and spare parts, as well as the costs of administration, training and exercises, and increasing activities in support of alliances, regional relationships and other interests.

14.15 Operations, exercises and training are essential for maintaining effective defence capabilities. The Australian Defence Force needs to sustain a sufficient tempo of activity for it to operate effectively in peace and be prepared to defend Australia. Demands on operating funds will increase over coming years due to the introduction of a range of new high technology assets - including submarines, minehunters, ANZAC frigates, an airborne early warning and control capability and the Jindalee Operational Radar Network - and an increased Australian Defence Force presence in northern and Western Australia.

14.16 In recent years, the Government has constrained administrative and support costs through initiatives such as the Commercial Support Program. We will seek further savings through greater efficiency and productivity. These will be directed towards off-setting the increasing costs of operations and personnel.

Personnel

14.17 Personnel costs are and will remain the largest element of defence costs. To achieve cost-effective national defence, the Government implements measures to ensure the most efficient use of personnel. This has enabled personnel costs to be reduced from 60 per cent of the defence budget twenty years ago to under 40 per cent today.

14.18 On present estimates, efficiency measures in train since the **Force Structure Review, 1991** will reduce authorised average staffing levels, both uniformed and civilian, by close to 12,000. Some $440 million in recurring annual expenditure will be freed by this process by 1997-98.

14.19 Further personnel related efficiencies will be sought, but the scope for significant funds to be redirected into capabilities will reduce as most substantial efficiency gains have already been made. Moreover, the demands of operating the new and more sophisticated equipment planned to enter service in coming years will increase the number of personnel needed in some areas and raise the per capita personnel costs as skill levels increase. Even where personnel numbers can be reduced further without detriment to capabilities, productivity-based pay increases are required to have first call on any such savings.

MANAGING DEFENCE RESOURCES

14.20 Efficient and effective resource management is essential for a strong national defence capacity. This is maintained through a rigorous process of review within the Defence Organisation's force development and materiel acquisition processes and through the activities of the Defence Inspector-General, whose responsibilities include auditing defence financial processes, and the Australian National Audit Office. Efficiency is also achieved by careful forward planning. This is necessary because the lead times to acquire major capabilities and integrate them into the Force are long, and there is a need to commit funds to Australian industry well into the future for significant development projects such as submarines and frigates.

14.21 To assist Defence resource management, the Government has introduced carry-over provisions for Defence expenditure to recognise the fact that investment

projects do not always fall neatly within financial year boundaries. These provide for carry-over of up to $100 million of planned expenditure on major capital equipment and facilities, and $30 million on other non-running cost activities, from one year to the next. Furthermore, if the Defence expenditure target is not achieved one year, this will no longer automatically result in a real reduction in the future Defence funding base.

14.22 As part of its budgetary arrangements, Defence receives supplementation to meet a range of unforeseen or exceptional costs arising from Government decisions. In the last few years these have included participation in a number of peace operations, the construction of a Defence Signals Directorate facility at Geraldton, and the procurement of additional F111 aircraft. This supplementation amounted to $116 million in 1991-92; $250 million in 1992-93; $86 million in 1993-94; and $46 million agreed to date in 1994-95.

Five Year Budget

14.23 The Government will provide Defence with a five year budget commitment, commencing in 1996-97. This will allow the Government to apply the required strategic vision, consideration of long-term trends and consistency to defence planning, and thus to optimise the value of its commitment to Defence expenditure of approximately 2 per cent of Gross Domestic Product.

14.24 The five year budget commitment will meet the need of Defence planning to be able to look well into the future and recommend long-term commitments with confidence. Major defence capabilities cannot be introduced quickly. It takes time to acquire equipment, to construct purpose-designed defence facilities and to train personnel. Time is essential also to develop and nurture our international relationships, and our national support base. By improving predictability of project timing and a more even flow of defence work, additional opportunities will be available for Australian industry to make the longer term investments to benefit from defence work.

14.25 The five year budget commitment will provide Defence with a more secure basis for long term planning of resource allocations. It will enable the programmed development of capabilities over the longer term in accordance with evolving strategic circumstances, the development of more cost-effective programs with industry, and more efficient personnel planning and management.

CONCLUSION

14.26 The Government recognises its obligation to protect Australians from the threat or use of armed force, and is committed to paying the cost of such protection. This cost is not high relative to our national wealth, and for as far ahead as we can see with certainty it need not increase relative to that wealth. With only very modest real growth in Australia's Defence budget, we can maintain the capabilities needed to protect our territory and direct interests in short-warning conflicts. We can also maintain the adaptability to expand or redirect our efforts in future should more demanding circumstances emerge. The versatility inherent in such a force will continue to provide adequate options for us to contribute to important international interests.

SUMMARY

S.1 Defending Australia sets out the Government's approach to managing Australia's defence through the first decade of the next century. It explains how the Government's defence policy will respond to changes expected over the next fifteen years in our strategic environment, our national industrial and technological base, and our society. It reaffirms the Government's commitment to ensuring that in the decades ahead Australia will continue to be secure from military attack.

S.2 Armed force will remain a significant factor in international affairs, and Australia must ensure that it cannot be successfully used against us. Ultimately, we must rely on our own armed forces to do this. While our strategic environment is not presently threatening, we must look now to our needs in 2010 and beyond because major defence capabilities take many years to develop. Moreover, maintaining a strong defence force helps to make conflict less likely, and contributes to Australia's international interests and standing.

S.3 Our strategic environment will change over the next fifteen years under the influence of two major trends. One is the changing strategic postures and relationships of the major powers in Asia following the end of the Cold War. The other is economic change throughout Asia, which is increasing the military and strategic potential of countries in the region. As a result of these trends and of political change which can be expected in a number of countries, the strategic environment in Asia and the Pacific will become more fluid and complex, and military capabilities throughout our region will grow. Australia's strategic environment thus will become more demanding.

S.4 The first priority of Australian defence policy is to build, maintain and support forces which are capable, without help from the combat forces of other countries, of defeating any attack which could credibly be mounted against Australia. This objective determines the way we structure and equip the Australian Defence Force. Our security from armed attack does not, however, depend on our defence capabilities alone. It depends also on maintaining a global and regional environment which makes the use of armed force against Australia less likely.

Planning Defence Capabilities

S.5 Careful planning for the defence of Australia ensures that we have the level and mix of capabilities necessary for defence self-reliance. The posture and forces we require, now and in the future, are determined by our strategic geography and the nature and level of forces which could credibly be used against us.

S.6 Our planning focuses on capabilities rather than threats. We maintain forces sufficient to ensure our defence against capabilities now in existence, or planned, which could credibly be brought to bear against us. The type of conflict that could be sustained with these capabilities is called short-warning conflict. We need to maintain forces to deal with short-warning conflict because we would not have time to develop additional capabilities within the relatively short notice we would receive of the development of a motive or intention to attack Australia.

S.7 The scale and intensity of short-warning conflict could range from small raids to larger and protracted operations. As sophisticated military equipment becomes more widely available and the capacity of many countries to acquire and operate military systems increases, the level of capability in the region and the potential demands of short-warning conflict will also increase. Our most important challenge over the next fifteen years will be to adapt our own forces to be able to meet these greater demands.

S.8 Our defence posture gives priority to making our sea and air approaches an effective barrier to attack, and to ensuring that our forces are familiar with our northern operating environment and our equipment is optimised for conditions there. We seek to exploit technology to monitor our territory and approaches and deny them to an adversary. We will continue to develop excellence in those capabilities which are needed most to give us the decisive edge in defending Australia. We will draw on every dimension of our defence effort, using our geographical and technological advantages, our thorough understanding of the region and our diverse national support base, to provide a defence posture of great depth.

S.9 We give careful attention to the preparedness of our forces to undertake and sustain operations. We hold sufficient forces at relatively high readiness levels to deal with events that could arise with little warning. The force structured for the defence of Australia has considerable versatility and provides options for undertaking a wide range of activities in support of wider defence and government interests.

S.10 While our planning focuses on short-warning conflict, it also considers those higher levels of conflict which could occur in the longer term. Our intelligence capability provides us with timely warning of major developments in our region and we maintain the adaptability to modify and expand our own forces relatively rapidly if necessary.

S.11 Constant improvement is required to maintain the relative level of capability of our forces. Priority areas for development include integrated command and control; reliable joint communications; effective broad area surveillance; and enhancing the mobility, firepower and protection of our forces.

Developing Defence Capabilities

S.12 The highly capable Collins Class submarines will enter service over the next five years. Six submarines are considered appropriate to meet current and foreseeable needs. The priority for acquiring additional submarines will be reviewed after the commencement of the first five year Defence budget in 1996-97, taking into account Australia's strategic circumstances. Eight ANZAC frigates and the six coastal minehunters will also join the force. The Fremantle Class Patrol Boats will be replaced and the FFG frigates upgraded. Additional maritime helicopters will be acquired. Consideration will be given to replacement early next century of the capability provided by the DDGs. To accommodate these developments Navy regular personnel numbers will be increased marginally.

S.13 An additional Regular infantry battalion will be raised over the next three to four years from within Army resources. It will have one Reserve company. The overall land force structure, including the Reserves, will be reviewed in 1995. An option to acquire surplus German tanks will not be taken up as it would not be cost-effective, but a range of additional ground vehicles will be acquired to increase the mobility of infantry and reconnaissance units. The Kiowa helicopters will be replaced and consideration will be given to acquiring additional helicopters to enhance land force tactical mobility.

S.14 The C130E transport aircraft are being replaced now, and options will be considered for replacing the airlift capability provided by the C130H. The P3C maritime patrol aircraft are about to undergo a major upgrade of their sensor suites, and the F/A-18 fighter fleet will be upgraded later this decade. The Macchi trainer will be replaced by 2000. The recent acquisition of F111G aircraft and major upgrade of the existing F111 fleet will ensure the strategic strike force remains effective well into the next century, although attention will be given to improving self-protection systems and precision weapons. An airborne early warning and control capability will be acquired after a project definition study is completed in 1995. Options for replacing the Caribou transport will be reviewed; both fixed and rotary wing aircraft will be considered.

S.15 Infrastructure development will continue over the next few years to complete the air bases across north Australia; move Navy elements to Western Australia; and move Army units to the Darwin area. A new field training area will be acquired in northern Australia.

Defence Personnel and Reserves

S.16 As differences in military technology narrow, the relative effectiveness of our capabilities will depend increasingly on the human factor - better

commanders, higher levels of skill, more individual initiative and more effective teamwork. In developing the Australian Defence Force, the proficiency and expertise of all members of the Defence Organisation - military, civilians and contractors - will be a key to our effectiveness. Central to this is the melding of all elements of the Australian Defence Force - Regular and Reserve; Navy, Army and Air Force; combat and support - into a Total Force.

S.17 Service in the Defence Force imposes special demands on military personnel and their families. The Government will continue to support housing, allowances and other conditions of service which recognise the special features of military service. Measures will also be pursued to ameliorate the disadvantages which frequent relocations impose on family life, particularly in relation to spouse employment and children's education.

S.18 With the emphasis given to broader national defence support, it is no longer appropriate to measure defence capacity by the number of uniformed personnel. The skills and professionalism of our personnel, however, are fundamental to all our defence capabilities. In the longer term recruiting and retaining enough high quality people for the Australian Defence Force will be a major challenge as community attitudes to military service change. Consequently, a wide ranging review of personnel policies has been initiated to develop new Defence Force personnel strategies for the future.

S.19 Additional emphasis will be given to the role of Defence Reserve personnel. Reserves now have specific roles in defending Australia in short-warning conflict. To meet this need, individual training standards for Reserves will be similar to those of Regulars, and Reserve units will be better equipped and prepared. Arrangements for the transfer of personnel between Regular and Reserve elements of the Force will be simplified, and more Regular personnel will be encouraged to transfer to the Reserve rather than resign from the Australian Defence Force. Reserve training depots and units will be consolidated to meet the demands of Reserve collective training and to make better use of personnel, facilities and equipment. The Government will assess whether some depots which are no longer required can be made available for use by community groups.

S.20 The Government will encourage a supportive employer environment and move to provide appropriate conditions of service during part-time training. The Government will also safeguard the financial interests of Reserves in the event of call-out.

International Defence Interests

S.21 Over the next fifteen years, the strategic environment in Asia and the Pacific is likely to be more demanding and to be determined, more than ever, by the policies and approaches of regional countries themselves. Australia's engagement with countries in Asia and the Pacific as a partner in shaping the strategic affairs of the region will thus become an increasingly important element in ensuring our security.

S.22 Australia will continue to foster a growing sense of shared strategic interests in the region. We will support actively the new multilateral and cooperative approaches to security reflected in the ASEAN Regional Forum. Defence will have an increasing role in these activities, particularly those related to transparency and confidence-building among defence forces in the region.

S.23 The scope, content and quality of our activities with countries in South-East Asia is changing to increase the emphasis on partnership and shared interests, including new levels of strategic dialogue. Australia's defence relationship with Indonesia is our most important in South-East Asia and a key element in Australia's approach to regional defence engagement. It is underpinned by a growing awareness of shared strategic interests and perceptions. Closer consultation on strategic and defence issues will be increasingly important. Our defence relationships with Malaysia and Singapore continue to be valued highly, both bilaterally and in the context of the Five Power Defence Arrangements.

S.24 Strategic trends in Asia and the Pacific will require Australia to attach greater importance to defence contacts with the major countries in North-East Asia and South Asia. We will aim to develop exchanges which provide greater mutual knowledge of strategic perceptions and policies. We will seek a better understanding of China's perceptions and intentions and an expanded dialogue with Japan on strategic issues and policy directions.

S.25 The countries of the South-West Pacific are strategically important to Australia and we will continue to cooperate with them to help ensure their security. Australia's defence relationship with Papua New Guinea will continue to be our most substantial in the South-West Pacific.

S.26 Our alliance with the United States remains a key element of our defence policy. We will continue to support US engagement in the Asia-Pacific region in ways which enhance long-term stability and security. We will further our collaboration with the United States in equipment, intelligence, science and technology, logistics and training. Each of these areas makes an important contribution to our defence posture. The Joint Defence Facilities will continue to serve the interests of both countries.

S.27 We value our alliance with New Zealand, and seek mutual benefits through Closer Defence Relations and a shared responsibility for the promotion of regional security. We also continue to value and foster the links we have with other major countries, particularly traditional partners such as the United Kingdom and Canada.

S.28 Australia supports and contributes to multinational peace operations. The versatility of the Australian Defence Force will ensure that a sufficient range of options exists to enable us to contribute effectively to UN or other multinational operations. Decisions on our participation in such operations will be made on a case-by-case basis against criteria which reflect our national interests. The Defence Force contribution to those operations will lie mostly in our undertaking specialised tasks rather than in providing large forces. We will evaluate our contributions on qualitative grounds, including the adequacy of our overall national contribution to support of the United Nations.

S.29 Effective arms control measures contribute directly to our security. Defence will play an important role in the development and monitoring of arrangements which aim to limit the spread of weapons of mass destruction and ballistic missiles.

National Defence Support

S.30 Australia's national support base underpins all aspects of our national defence effort by developing defence equipment and facilities, training our people, and sustaining our capabilities. A dynamic partnership between Defence and Australian industry is essential to the continued strength of this base. Priority will be given to developing national capabilities to repair, maintain and modify defence systems - particularly in areas such as communications, software, sensors and electronic warfare - and to important technologies relevant to our environment and strategic circumstances. Defence expenditure on goods, services and major equipment will continue to be directed predominantly to Australian industry, and to securing reliable sources of through-life support.

S.31 Mechanisms will be introduced to encourage long-term relationships between Defence and industry, and to avoid unnecessary costs in tendering and related acquisition processes. The Commercial Support Program will continue to increase the role of Australia's commercial sector in providing services to Defence, leading to greater efficiency in Defence support and freeing valuable military personnel to work in combat-related areas. The Government will also promote the export of defence goods by Australian industry, within clear export control guidelines.

S.32 A strong science and technology base relevant to our environment and evolving military capabilities is also essential for national defence. The Defence Science and Technology Organisation provides a capacity to develop new systems unique to our needs and to modify and maintain systems acquired overseas. Its own work program, and its strong links with other Australian scientific bodies, Australian industry and overseas research and development organisations, will ensure that Defence is well placed in the future to exploit developing technologies.

S.33 Successful management of our defence effort requires the closest possible integration between Defence and the wider Australian community. The Australian Defence Force can undertake disaster relief and search and rescue for the civil community, and maintains specialist skills in counter-terrorist operations. It also supports national efforts in areas such as customs, immigration and fisheries surveillance.

S.34 Defence also brings substantial benefits to the wider economy through employment, training, the development of our national industry, science support and communications infrastructure, as well as the development of northern infrastructure.

Funding Our Defence Effort

S.35 A strong national defence force must be paid for. Lead times for the development of defence capabilities are long and do not permit us to defer costs now in the hope of being able to make up ground when the situation deteriorates.

S.36 Although the Defence budget has declined in recent years, Defence has sustained its investment program with savings generated from major reforms and productivity increases. The scope for further savings is decreasing, however, and our strategic circumstances are becoming more demanding. Thus, while on present economic forecasts and strategic projections our Defence budget will not need to grow faster than our Gross Domestic Product, some modest real growth will be needed later this decade and in the following decade. Over this period, the Government plans that defence spending will be sustained at approximately 2 per cent of Australia's Gross Domestic Product.

S.37 To be most efficient and effective, Defence planning must be able to look well into the future and make long-term commitments. Such planning depends critically on confidence in future resource allocations. Commencing in 1996-97, the Government will therefore provide Defence with a five year budget commitment.

APPENDIX

THE AUSTRALIAN DEFENCE ORGANISATION TODAY

1. This Appendix describes each of the major elements of the Defence Organisation, which work together to ensure a one team approach to national defence under the joint leadership of the Chief of the Defence Force and the Secretary, Department of Defence. The major elements of the Organisation include the Force Executive Program, the Royal Australian Navy, the Australian Army, the Royal Australian Air Force, the Strategy and Intelligence Program, the Acquisition and Logistics Program, the Budget and Management Program and the Science and Technology Program.

FORCES EXECUTIVE PROGRAM

2. The Forces Executive Program consists of the Headquarters Australian Defence Force, as well as senior Defence colleges, the Australian Defence Force Academy, Defence Recruiting and other organisations such as Emergency Management Australia.

3. The Chief of the Defence Force provides advice to the Government on military operational matters and exercises day-to-day strategic command of the Australian Defence Force. Some 560 civilians and on average, 2,090 military personnel from all three Services are employed in the Forces Executive Program. (These military personnel are included in the total numbers of their respective Services.) The Forces Executive Program includes key Headquarters functions such as the development of military strategy and concepts, force development, guidance and doctrine for the conduct of operations, and personnel policy and management. Within the Headquarters, the Vice Chief of the Defence Force, as the principal staff officer to the Chief of the Defence Force, is Chief of Staff of the Headquarters and has policy responsibility for the Forces Executive Program.

4. Operational forces are under the overall command of the Chief of the Defence Force, through the joint commanders based in the Sydney area - Maritime, Land and Air - or the Commander Joint Forces Australia or Lead Joint Forces Commander when appointed. Selected force elements also can be placed under the command of Northern Command located in Darwin or a deployable joint force headquarters based upon assets maintained by Headquarters 1 Division.

THE ROYAL AUSTRALIAN NAVY

5. Under the command of the Chief of the Naval Staff, Navy is responsible for providing naval elements of the Defence Force. The main fleet operating bases are located in Sydney and at HMAS Stirling, the Fleet Base West near Fremantle, which will also be the base for the new submarines. Patrol and hydrographic ships are also based at Cairns, Darwin, Fremantle and Sydney. Most fleet support and operational training facilities and the Naval Air Station are located in Sydney and in the Nowra-Jervis Bay area, though a major training base is at Western Port, Victoria. At 30 June 1994, Navy had a strength of 14,776 permanent service personnel, 4,957 Reserves - including 108 Ready Reserves and 3,528 Reserves with no training obligation - and 4,248 civilian staff. The main fleet elements as at 30 June 1994 are listed in Figure A-1.

Figure A-1: Major Navy Operational Elements

- 11 destroyers and frigates (3 DDGs, 6 FFGs and 2 River Class destroyer escorts)
- 4 Oberon Class conventional submarines
- 15 Fremantle Class patrol craft
- 7 mine countermeasures vessels (2 inshore minehunters and 5 minesweeper auxiliaries)
- 1 heavy landing ship and 5 heavy landing craft
- 2 under-way replenishment ships
- 16 S70B2 Seahawk multi-role helicopters
- 7 Sea King medium utility helicopters
- 6 AS350B Squirrel and 3 Bell 206B Kiowa light utility helicopters
- 2 HS748 electronic warfare training aircraft
- 2 hydrographic survey ships, 4 survey motor launches and 1 F27 hydrographic survey aircraft
- 2 clearance diving teams

6. Developments in progress will add a number of important assets, notably eight ANZAC frigates, six Collins Class submarines, six Huon Class Coastal Minehunters and two heavy landing ships which are to be modified, while some older ships will be decommissioned.

THE AUSTRALIAN ARMY

7. Under the command of the Chief of the General Staff, the Army is responsible for providing land elements of the Defence Force. The combat forces of Army are located primarily in the Townsville, Brisbane and Sydney areas, though the number in the Darwin area is increasing progressively. Large training establishments exist across Australia, and there is a strong Reserve presence in many communities. The total personnel strength of Army at 30 June 1994 was 26,347 Regulars, 2,462 Ready Reserves, 26,450 General Reserves - including 3,608 with no training obligation - and 5,671 civilian personnel.

8. Major operational assets in Army at 30 June 1994 are listed in Figure A-2. Major combat elements of Army are listed in Figure A-3. Many combat and logistic support elements are composite units employing both Regular and Reserve personnel. Developments in progress will add a fifth infantry battalion to Army's combat force, which will be an integrated Regular/Reserve unit.

Figure A-2: Major Army Operational Assets

- 103 Leopard 1A3 tanks
- 771 M113 armoured vehicles
- 15 LAV-25 armoured vehicles
- 246 M2A2/L5 105mm Howitzers
- 104 Hamel 105mm Howitzers
- 33 M-198 155mm medium guns
- 31 Rapier surface-to-air missile systems
- 19 RBS-70 surface-to-air missiles
- 22 N22 and N24 Nomad light transport aircraft
- 38 S70A-9 Blackhawk helicopters
- 45 Bell 206B-1 Kiowa helicopters
- 25 Bell UH-1H Iroquois helicopters
- 18 AS-350B Squirrel helicopters
- 4 CH47-D Chinook helicopters
- 15 Medium Landing Craft

Figure A-3: Major Army Operational Elements

Regular
- 1 Divisional and 2 Brigade Headquarters
- 1 Armoured Regiment Headquarters and 1 Leopard Tank Squadron
- 1 Reconnaissance Regiment with M113 and LAV-25 armoured vehicles
- 1 Armoured Personnel Carrier Squadron with M113 armoured vehicles
- 1 Field Artillery Regiment with 105mm Howitzers
- 1 Medium Artillery Regiment with 155mm guns
- 1 Divisional Locating Battery (Integrated with General Reserves)
- 1 Air Defence Regiment (Integrated with Ready Reserves) with Rapier surface-to-air missiles
- 1 Air Defence Battery (Integrated with Ready Reserves) with RBS70 surface-to-air missiles
- 2 Combat Engineer Regiments and Workshops
- 2 Construction Squadrons
- 4 Signals Regiments
- 8 Independent Signals Squadrons
- 4 Infantry Battalions
- 1 Special Air Service Regiment
- 1 Aviation Regiment with Iroquois, Kiowa and Nomad aircraft
- 1 Aviation Regiment with Blackhawk, Iroquois and Chinook aircraft
- 1 Army Survey Regiment

Ready Reserve
- 1 Brigade Headquarters
- 2 Ground Reconnaissance Squadron with M113 armoured vehicles
- 1 Tank Squadron with Leopard Tanks
- 1 Field Artillery Regiment with 105mm Howitzers
- 1 Combat Engineer Regiment and Workshop
- 1 Independent Signals Squadron
- 3 Infantry Battalions

General Reserve
- 1 Divisional and 7 Brigade Headquarters
- 1 Tank Squadron with Leopard Tanks
- 2 Reconnaissance Regiments with M113 armoured vehicles
- 1 Reconnaissance/APC Regiment with M113 armoured vehicles
- 1 APC Regiment with M113 armoured vehicles
- 1 Reconnaissance Squadron with M113 armoured vehicles
- 2 APC Squadrons with M113 armoured vehicles

- 3 Field Artillery Regiments with 105mm Howitzers
- 4 Independent Field Artillery Batteries with 105mm Howitzers
- 1 Medium Artillery Regiment with 155mm guns
- 1 Field Engineer Regiment and 1 Engineer Support Regiment
- 2 Construction Regiments
- 3 Field Engineer Squadrons and 1 Divisional Engineer Support Squadron
- 1 Signals Regiment
- 5 Independent Signals Squadrons
- 14 Infantry Battalions
- 3 Regional Force Surveillance Units
- 1 Commando Regiment

THE ROYAL AUSTRALIAN AIR FORCE

9. Under the command of the Chief of the Air Staff, Air Force is responsible for providing major air elements of the Defence Force. Air Force operates from ten active air bases and two major ground training bases around Australia, and periodically from two otherwise unmanned northern air bases - three with the completion later this decade of Scherger Air Base on Cape York. At 30 June 1994, the Air Force comprised 17,807 Regular personnel, 4,419 Reserves - including 199 Ready Reserves and 2,967 with no training obligation - and 2,232 civilian staff. The major operational elements of Air Force at 30 June 1994 are listed in Figure A-4.

Figure A-4: Major Air Force Operational Elements *

Tactical Fighter Group
- 3 Tactical Fighter Squadrons with 52 F/A-18 aircraft
- 1 Tactical Fighter Operational Conversion Unit with 18 F/A-18 aircraft
- 1 Lead-in Fighter Training Squadron with 16 Macchi MB326H and 2 PC9A aircraft
- 1 Conversion Training Squadron with 14 Macchi aircraft
- 1 Air Defence Radar Wing
- 1 Aircraft Maintenance Wing

Strike/Reconnaissance Group
- 2 Strike/Reconnaissance Squadrons with 17 F111C, 15 F111G and 4 RF111C aircraft, including operational level maintenance.

Maritime Patrol Group
- 2 Maritime Patrol Squadrons and 1 Maritime Patrol Training Squadron with 19 P3C aircraft
- 1 Aircraft Maintenance Squadron

Airlift Group
- 1 Long-range Transport/In-flight Refuelling Squadron with 5 Boeing 707 aircraft
- 2 Medium-range Transport Squadrons with 12 C130E and 12 C130H Hercules aircraft
- 2 Special Transport Squadrons with 5 Dassault 900 Falcon and 10 HS748 aircraft
- 2 Tactical Transport Squadrons with 14 CC08 Caribou aircraft
- 1 Aircraft Maintenance Squadron

Operational Support Group
- 2 Airfield Defence Squadrons
- 1 Operational Support Unit
- 1 Air Transportable Telecommunications Unit

* Note: One fighter squadron also has two Nomad aircraft for logistic support; one B707 is for special transport while the other four are special transport/in-flight refuelling tanker aircraft.

THE STRATEGY AND INTELLIGENCE PROGRAM

10. This Program employs some 1,005 civilians and on average, some 800 military personnel from all three Services. (These military personnel are included in the total personnel numbers of their respective Services.) It provides international and force development policy advice to Government, as well as managing the program of new major equipment investment. It also manages the Defence Cooperation Program with regional nations, including such activities as the provision of Pacific Patrol Boats to Pacific Island countries.

11. The Strategy and Intelligence Program also includes the Defence Intelligence Organisation and the Defence Signals Directorate, both now based in Canberra, which provide intelligence to the Defence community and other Government agencies, and participate in Government national intelligence assessment processes.

THE ACQUISITION AND LOGISTICS PROGRAM

12. This Program is responsible for procurement of major capital equipment and facilities for Defence, and for logistic policy. It also provides policy advice to Government on defence industry matters, including exports and materiel cooperation with other countries.

13. The Acquisition and Logistics Program employs some 1,825 civilians and on average some 560 military personnel from all three Services, based primarily in Canberra, though including some representatives around Australia and overseas. (These military personnel are included in the total numbers of their respective Services.)

THE BUDGET AND MANAGEMENT PROGRAM

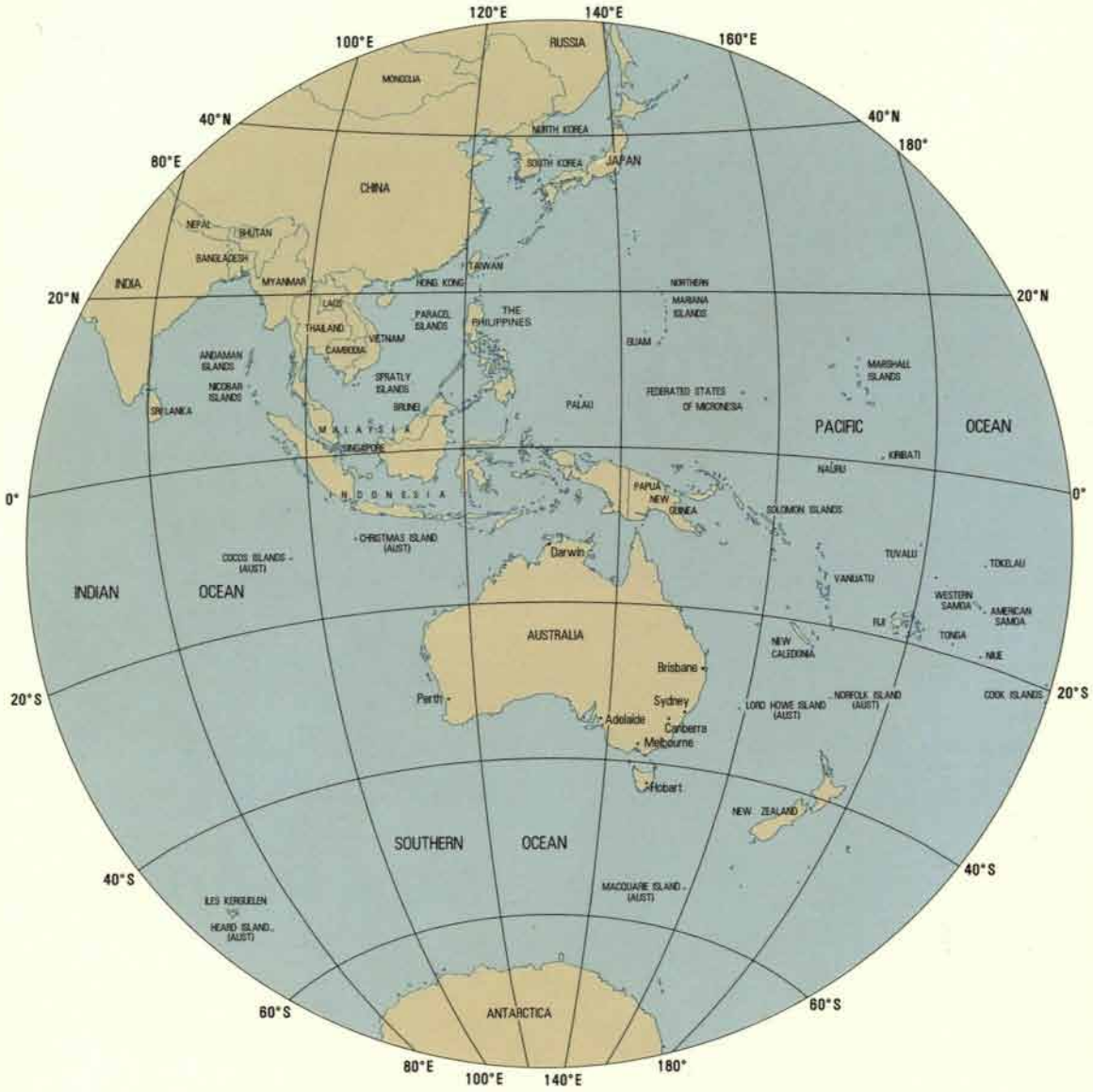
14. This Program is responsible for developing policies on financial and personnel management, program evaluation, audit, legal matters and security and providing related services, including the coordination of the Defence Budget and a range of computing services.

15. The Program employs some 2,700 civilian and on average, some 320 military staff from all three Services. Most are located in the Defence centres in each capital city. (These military personnel are included in the total numbers of their respective Services.)

THE SCIENCE AND TECHNOLOGY PROGRAM

16. This Program is based on the Defence Science and Technology Organisation, which employs some 2700 civilians and on average some 20 military personnel. (These military personnel are included in the total numbers of their respective Services.) Staff are located in major laboratories headquartered in Melbourne (Aeronautical and Maritime Research), and Adelaide (Electronics and Surveillance Research), with smaller research groups around Australia and a central office in Canberra.

17. The Defence Science and Technology Organisation provides advice on the application of science and technology best suited to Australia's defence and security needs. It conducts research in a wide variety of defence-relevant fields, focusing on areas which are unique or otherwise central to national self-reliance.



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