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INTRODUCTION

The first responsibility of government is to provide the nation with security from armed attack and from the constraints on independent national decisions imposed by the threat of such attack. This White Paper sets out the Government’s position in this respect. It states the Government’s estimates of the circumstances that uphold or that could jeopardise Australia’s security. It gives the Government’s views about future prospects. It describes the Government’s policies for supporting those circumstances favourable to Australia, and the practical defence measures planned to provide the nation with insurance against any unfavourable change. It describes the Five Year Defence Program, within which projects will continue to be developed for later final financial decision in accordance with the normal processes of Government consideration.

2. The national defence effort is expensive, and it accounts for a substantial proportion of the Government’s annual expenditure. Notwithstanding the priority given by the Government to its efforts to reduce inflation and revive the national economy, it has undertaken to increase the Defence Vote over the next five years, the period the Defence Department uses for its forward programming. It is proper that the nation should be informed of the reasons for this and of the manner in which its money is being spent. Public discussion of defence policy is sought by the Government. The aim of this paper is to promote discussion and to help mould a national understanding and consensus that will support our defence effort and the security that it affords.
CHAPTER 1
AUSTRALIA'S CHANGING STRATEGIC CIRCUMSTANCES

For most of its history, Australia was protected by Britain's imperial might. Even after the Second World War, when Australia had perforce turned to the United States, close Australian defence co-operation with Britain was sustained by that country's continued responsibilities in Malaya (later Malaysia), and by its membership of the South East Asian Treaty Organisation.

2. In the past decade, Britain has been turning increasingly to Europe and the North Atlantic, where its primary strategic interests lie. Australia acknowledges the British contribution to the secure establishment of the nation-states that succeeded to its imperial rule. Australia must also acknowledge that Britain can no longer be expected to accept significant military involvement in areas of concern to Australia east of Suez.

3. Change in strategic status has been experienced by most of the other 'Great Powers' that dominated world affairs thirty-five years ago. France, Germany and Japan, while principal powers in their own regions, and commanding influence and respect in many matters of world-wide concern (Japan is a world economic power), cannot compare in global status and military might with the two Super Powers of the contemporary era, the United States of America and the Union of Soviet Socialist Republics.

4. The withdrawal of former imperial powers and the proliferation of sovereign nation-states in numbers unprecedented in history have established a new world order. Australia's external political environment has been radically transformed by these changes—changes we were able to support in Indonesia a generation ago, to help defend later in Malaysia, and to assist in Papua New Guinea.

5. Changes have occurred also in the communist world. While possessing massive military power, the USSR has long ceased to command the undisputed political pre-eminence and leadership it enjoyed in earlier years. The communist movement is still a potent international force; but it is not the monolith that so concerned western leaders in the earlier post-war era.

6. In particular there has been a major re-assessment of China. China's earlier isolation has been much modified and it has entered into widespread relationships with other governments. It plays an important role in world affairs. We welcome the opportunity to develop our relations with China; but we recognise the important differences in our political attitudes.

7. In South East Asia, a region of abiding importance to Australia, the nations forming the Association of South East Asian Nations¹ have made notable progress in the tasks of nation-building. They continue to face difficult problems of economic and social development.

¹ Indonesia, Malaysia, the Philippines, Singapore, and Thailand.
The United States has now disengaged militarily from the mainland of South East Asia. There must be large questions about the circumstances that could move the US Administration and Congress to agree to become militarily involved there again, particularly with ground forces.

10. With the withdrawal of the colonial powers, a new political situation is developing in the South West Pacific. Most of the new states are small and with only limited resources.

11. A most significant event has been the massive build-up undertaken by the USSR in both its nuclear and conventional armaments. The USSR has achieved essential nuclear strategic equivalence with the US and competes with the US as a global power.

12. Allowance must be made for the USSR’s perceptions of its requirements for defence. Nevertheless, the size of the Soviet military build-up and the scale of strategic weapons still leave question about Soviet motivation unanswered. The USSR demonstrated in Angola both motivation and capability to project military power into a distant region.

13. The changes mentioned above, and others to be mentioned later in this Paper, constitute a fundamental transformation of the strategic circumstances that governed Australia’s security throughout most of its history, and even throughout the post-war decades. Australia is now in a new strategic situation, and one that is still evolving, globally and regionally.

14. Change does not necessarily mean insecurity. Despite the major changes in Australia’s circumstances in the last thirty years, we have been free from threat of military attack since the end of World War II. Use of military force is not a course adopted lightly by one nation against another. Military action must appear to offer worthwhile rewards; there must be substantial political hostility or ambition for conquest or adventurism to induce one nation to organise and sustain military attack upon the sovereignty and independence of another; and there would need to be apparently favourable strategic circumstances. The conjunction of such conditions is infrequent among the nations of the world and takes time to develop.

15. As a not insubstantial local power, Australia is able to influence developments. Remote from Europe, we now have one significant alliance—the ANZUS Treaty, with New Zealand and the US. Both countries are important to us; but it is prudent to remind ourselves that the US has many diverse interests and obligations. Australia has local and regional associates with whom we enjoy close and cooperative relations. We must continue to work constructively with them to support stability and security in the general strategic situation; and by our own policy and effort we can insure against the uncertainties that continuing change will sustain and that could produce situations with which we may well have to deal on our own.

16. The following Chapter summarily reviews our contemporary strategic situation and future prospects preparatory to discussion of the implications for Australia’s defence posture and capability.
8. In North East Asia, the primary confrontation is between the USSR and China, but there are also critical issues regarding Korea and the territory of Taiwan. US involvement is related principally to Japan and the Republic of South Korea. Hostilities between China and the USSR, or hostilities in Korea or regarding Taiwan could disrupt the equilibrium between the US, the USSR and China, and stimulate changes in the defence policy of Japan.

9. At this time, any accommodation between the USSR and China appears likely to be limited and not substantially to affect their military postures. At the same time, they are likely to want to limit and localise any hostilities that might occur between them. Renewed war in Korea would carry serious risk of escalation and nuclear conflict. All powers involved in the region have major interests in avoidance of this. China is at present pursuing its claim to Taiwan by political means. As made clear in its recent Defence White Paper, Japan appears most unlikely to change its long-standing policy of limiting its military development. We expect this policy to continue, so long, at least, as regional developments do not risk Japan's security, and the security alliance with the US continues to command Japan's confidence and support.

Prospects for Stability

10. Australian assessments note many uncertainties. They also note the requirement for realism and sustained effort if strategic deterrence is to be effectively maintained, and if the pursuit of policies for the relaxation of tension and avoidance of conflict is not to induce a false sense of security and be exploited for unilateral advantage. Taking full account of these uncertainties and of this requirement, present Australian assessments see prospects for the maintenance of basic stability in the Super Powers' strategic relationship in respect both of their mutual nuclear deterrence and the situations in Central Europe and North East Asia.

11. However, this does not rule out lesser situations developing in a manner adverse to the interests of smaller powers. The Super Powers' relationship must be expected to fluctuate from time to time. Restraint will be necessary if crisis is to be avoided.

Competition Elsewhere

12. The US and the USSR each has substantial, though in important respects different, global interests, not only in strategic competition but in trade, aid, resource exploitation, political status and many other matters. But their basic postures clash. The US is basically interested in a peaceful and stable 'world order.' While having important interests in general international stability, the USSR has an ideology that can induce disruptive political change.

13. Although the USSR has relatively less need than the US for forces or major bases overseas, it is interested in access to facilities where this is militarily or politically useful. It appears ready to use its increasing global military reach for political purposes. At the present time, the USSR appears capable, following its action in Angola, of exploiting the developing situation in Southern Africa to further its political and strategic influence. It is already directly involved in the Horn of Africa.

The Indian Ocean

14. The primary area of Soviet strategic concern in the Indian Ocean is likely to remain the north-west sector. We do not know the USSR's motives, but the fact is that increased Soviet deployments there, backed by the USSR's military installations in Somalia, place it in a position in any time of international crisis to threaten critical lines of oil supply to Western Europe, Japan and Australia. Some seventy per cent of Western Europe's oil imports cross parts of the Indian Ocean; approximately seventy-five per cent of Japan's and eighty per cent of Australia's oil imports (and about one-third of our total oil requirements) transit the Ocean. Soviet facilities also locate the USSR favourably for involvement further afield into the east Indian Ocean, should opportunity offer and it calculate the effort and risk to be worthwhile.

15. Littoral states on the Indian Ocean have varying relationships with the Super Powers. These are a function of national strategic situations and are a matter for national discretion. Significant extension of Super Power activity, however, can exercise a powerful influence on the strategic circumstances of nations in a region. Armistice and other support can heighten regional confrontation and destabilise the military balance; it can attract competition and confrontation from the other Super Power; regional states can be drawn into these rivalries. Short of such major developments, the USSR could seek and gain local access for its military deployments, enabling it to exert direct pressure on local political developments.

16. The Australian interest is that these developments be avoided in the Indian Ocean littoral. The ability of the US to match the USSR and establish a restraining influence is important. For this reason, we support the present US program for modest development of the facilities at Diego Garcia, which will enhance the operational capability of the US Navy. But we would wish to see the Super Powers exercise restraint in their activities so that their deployments may be maintained at the lowest practicable level.

THE REGIONAL POWERS

17. The discussion so far has been related to the Super Powers because they alone in the contemporary era are able to project military power on a significant scale into regions distant from their homelands and relevant to Australia's strategic circumstances.

18. In the Indo-Pacific area the major powers are India, China and Japan. Australia seeks friendly relations with all of them. Australia, as a major source of food and resources, is well placed to play a constructive international role.

19. These countries all have their own local strategic preoccupations, and radical change in these circumstances and in their national policies could not be expected to be quick. No more than the former Great Powers of Europe can we expect these powers individually to play a large military role in strategic developments directly affecting Australian security in the foreseeable future.

CONFLICTS IN DISTANT REGIONS

20. Distant regional conflicts are not to be seen as necessarily directly affecting Australia's security interests and calling for heightened defence preparedness by us.

21. This is not to say that our national policies would be indifferent. Military conflict, particularly with arms supplied by external powers, might be intense and cause much suffering and damage. Changes in a regional distribution of power or in general strategic circumstances could have implications for Australia's security.

22. But in evaluating our defence policies and level of preparedness, we can note the fact that regional conflicts, as in the Middle East, have been successfully localised, and that it is in the Super Powers' interest to work together to confine such conflicts. While that mutuality of interest may not be assured in all circumstances, and in any
case policies of restraint may fail, outbreak of regional conflict need not be seen as a preface to the collapse of international stability and the first stage of a new world war.

23. This has implications for Australia's defence policy. Our military resources are limited and the first call upon them must always be in respect of our own national security tasks. We could not sustain significant operations in two theatres concurrently. We cannot contribute military forces that would be significant to the strategic balance in Europe or North East Asia, nor to the western nuclear deterrent. Events in distant areas such as Africa, the Middle East and North East Asia (assuming there were international sanction for Australia's involvement) are beyond the reach of effective defence activity by Australia. We can and do, however, contribute to UN peacekeeping operations.

AREAS OF AUSTRALIA'S PRIMARY STRATEGIC CONCERN

24. For practical purposes, the requirements and scope for Australian defence activity are limited essentially to the areas closer to home—areas in which the deployment of military capabilities by a power potentially unfriendly to Australia could permit that power to attack or harass Australia and its territories, maritime resources zone and near lines of communication. These are our adjacent maritime areas; the South West Pacific countries and territories; Papua New Guinea; Indonesia; and the South East Asian region.

25. Australia's defence interest is not confined to the presence or absence of military threat itself. We are concerned with developments that could directly or indirectly support Australia's security from military threat, or favour the development of threat sooner or later. Unfavourable developments in mainland South East Asia would not necessarily mean of themselves that threat of direct attack upon Australia was developing, but they could introduce uncertainties into our strategic prospects.

South East Asia

26. In the earlier post-war period, Australian strategic policy was strongly influenced by anxiety about the ability of the nascent nation-states of South East Asia to withstand domestic dissidence and external pressures.

27. The situation has changed in important respects. Our assessments, still necessarily short-term, depict a regional situation with reasonable prospects of stability, although with many imponderables and uncertainties.

28. On the favourable side, many regional states appear now to have better prospects than earlier expected of peaceful co-existence and of security from major extra-regional pressures. Basic political differences between the communist and ASEAN Governments are at present not proving a barrier to inter-governmental contacts. The prospect of large external powers acquiring major strategic influence in the region has very substantially receded. Their interests would not be served, now or foreseeable, by destabilisation of the region.

29. For a variety of reasons much will depend on how China, the closest of the external powers, decides to pursue its interests. It maintains its contact with the Maoists, and some support for dissident parties in the region, although currently at a subdued level. Chinese support for insurgencies in South East Asia appears now to be at a lower level than for many years.

30. The various domestic insurgencies continue, but appear unlikely to be able to organise major challenge as in the past. They would face a response from governments who, in general, are more strongly placed to deal with any such challenge.

31. It remains true that external powers have ample resources directly to support insurgent groups did they choose to adopt such a policy, and continuing political tensions in the region could provide them with opportunity. Bad times, or weak government, could produce serious instabilities.

32. Domestic instabilities in the region and even a level of political discord between the states would not of themselves jeopardise Australia's security; and we must accept there will be political change in the region, including that brought about by domestic violence. But in such circumstances, there could be risks of external intervention; regional rivalry and confrontation between external powers could develop. Protracted regional tension could lead the regional states to develop capability for conventional military operations on a regional scale.

33. None of these developments is at present in prospect. Reference to them, however, can help to clarify the basis for our abiding concern regarding prospects in South East Asia. As already mentioned, defence policy is concerned with contingencies and not simply demonstrable threats.

34. Our policy will be to support as best we may the present relatively favourable prospect in South East Asia. We cannot succeed to Britain's earlier role, nor would this be acceptable either to us or to the regional states to-day. However, most of the regional countries appear to value some association with Australia in defence matters.

35. We intend therefore to continue our defence connections with them, by such means as defence co-operation programs, occasional military exercising, consultations and visits. We shall continue to co-operate under the Five Power arrangement, which embraces Australia, Britain, Malaysia, New Zealand and Singapore. While acceptable to the Government of Singapore, we shall continue to operate RAN ships from there, and we are due at the end of this year to hold discussions again with the Governments of Malaysia and Singapore concerning the deployment there of our two RAAF Mirage Squadrons.

36. We shall keep under review the adequacy of our present activities, in consultation with regional governments; but we do not expect that any significant change will be called for to support our important common interests and to maintain our valuable co-operation with them.

Indonesia

37. Friendly relations between Australia and its major neighbour Indonesia have prevailed for thirty years and have successfully weathered occasional sharp differences. The substantial considerations sustaining basic accord between the two countries have long been understood and acknowledged in Australian policy.

38. The Indonesian archipelago, together with Papua New Guinea, would be an important factor in any offensive military strategy against Australia. This consideration alone gives Australia an enduring interest in the security and integrity of the Indonesian Republic from external influence. For its part, there would appear to be substantial advantages for Indonesia in having to its south a friendly neighbour, sharing its basic strategic interests and able to make a significant military contribution to the deterrence or containment of any threat that might possibly develop at some future time.
39. Indonesia is a large country with many pressing national problems. Effective military forces are an important element in national resilience; Australian co-operation, though necessarily limited, can help to maintain and develop skills and capacity in support of this.

40. Indonesia and Australia maintain a program for defence co-operation, initiated by the Liberal Country Party Government in 1972 and continued by the Labor Administration in 1972-1975. This includes co-operation in such projects as the mapping of parts of Indonesia; the development of Indonesia’s capability for maritime surveillance; training of Indonesian Servicemen; occasional combined exercising, and regular consultations about strategic developments and defence matters of common interest.

**Papua New Guinea**

41. The long association between Papua New Guinea and Australia supports a continued close relationship. Effective co-operation in defence matters is an important element in this. Although neither country seeks formal undertakings, it will be important that they maintain close consultations regarding any developments that could affect their security. At the present time, any external threat to Papua New Guinea appears improbable and remote in time.

42. At the present time, Australian defence co-operation with Papua New Guinea includes the attachment of Australian Servicemen to the Papua New Guinea Defence Force; supply support arrangements; a defence co-operation program for training and project aid; occasional operational assistance with transport, logistic and technical services; and defence consultations. It is intended to formalise these arrangements in appropriate governmental exchanges in the near future.

43. The common defence interests of Papua New Guinea and Australia extend beyond their bilateral contacts. Both countries share important interests with Indonesia regarding general strategic developments relevant to the security of the common neighbourhood. Australia and Papua New Guinea also share important interests regarding the South West Pacific, and it will be important that we consult and work closely together regarding developments there.

**The South West Pacific**

44. In the South West Pacific there are many newly independent and soon to be independent states. Australia enjoys friendly relations with all governments in the region. Australia seeks to co-operate with and assist these countries in their development in conditions of stability and security. Important lines of communication with Australia’s major trading partner, Japan, and with its major ally, the US, run through this region.

45. The ANZUS Council at its recent meeting noted the increase in external awareness of this region.

46. There is scope for co-operation should regional governments desire this, in the organisation and development of security forces, in training, in selective projects and in other ways. Worthwhile contact has already been established with Fiji, and we intend to explore requirements and scope for co-operation with other interested regional governments.

47. We intend to maintain and develop Australia’s military capability to demonstrate its interest in the region.

**New Zealand**

48. Our long historical association with New Zealand and the many common interests that sustain our co-operation as neighbours, partners and allies, need no elaboration here. Defence co-operation with New Zealand is fundamental to our interests and policy, and covers a very wide range. It includes bilateral consultation, maritime surveillance, combined exercises and training programs, exchanges of technical and operational information, and co-operation in intelligence, defence science and supply. We will devote continuing effort to sustain and further develop these programs.

**Antarctica**

49. The provisions of the Antarctic Treaty prohibit military use of the territory. Both the US and the USSR appear satisfied with these provisions. Political, as distinct from military, solutions to any disputes are to be expected.

**NUCLEAR PROLIFERATION**

50. Following renewed international efforts, including those by the two Super Powers, present prospects for slowing and curbing nuclear proliferation appear somewhat more favourable than previously. Any further proliferation appears likely to be essentially regional in its motivation and strategic significance, although there would be complex implications for central global relationships were proliferation to become extensive or lead to actual use of nuclear weapons.

51. There are no signs of significant movement towards acquisition of nuclear weapons in the regions of Australia’s primary concern. Australia is a member of the Nuclear Non-Proliferation Treaty, which forbids manufacture or transfer of nuclear weapons.

**LAW OF THE SEA**

52. A large reduction of the traditional high seas and an expansion of maritime areas under varying degrees of national jurisdiction appear certain consequent upon international negotiations for new Law of the Sea.

53. Our defence interests are affected. There will be an increase in requirements for the surveillance, patrol and policing of our national waters and maritime resources zone, and for demonstration of our sovereignty in conjunction with civil agencies. The conferring of a 200-mile exclusive resources zone would, for example, add some 2 500 000 square miles to the tasks of our protective services. We shall be closely interested in any developments affecting passage through the seas and straits of the archipelagic regions to our north.

54. There are likely to be internationally agreed arrangements for the political or judicial settlement of disputes; but such disputes will have a contingent military element.

55. Implications for the structure of the Australian Defence Force are receiving close study, and provision has already been made for some increase in our surveillance and patrol capability.
CHAPTER 3
AUSTRALIA'S DEFENCE REQUIREMENTS

1. The summary statement in the preceding Chapter indicated the main factors and trends that affect Australia's security.

2. Where there is political instability, tension or military confrontation, a detailed course of events can be difficult to predict with reasonable confidence beyond a few years, or even less. Few of the findings described in this Paper would have indefinite validity and for some the range of vision is short; but there is much continuity in the determinants of Australia's strategic circumstances. Major threats (requiring both military capability and political motivation) are unlikely to develop without preceding and perceptible indicators. The final emergence of a major military threat to Australia would be a late stage in a series of developments.

3. Strategic pressure or direct military threat against Australia, its territories, maritime resource zones, or lines of communication are at present not estimated as probable. But important changes have been noted that give rise to significant uncertainties in some respects.

4. Along with the essentially external factors that have been indicated, certain features of Australia's geographic situation also support our security.

5. Closely and expertly though we may assess developments, prudent defence policy must insure against uncertainties and the risk that they might resolve unfavourably to our interests. How we go about this is described later in this Chapter.

SELF RELIANCE

6. A primary requirement emerging from our findings is for increased self-reliance. In our contemporary circumstances we no longer base our policy on the expectation that Australia's Navy or Army or Air Force will be sent abroad to fight as part of some other nation's force, supported by it. We do not rule out an Australian contribution to operations elsewhere if the requirement arose and we felt that our presence would be effective, and if our forces could be spared from their national tasks. But we believe that any operations are much more likely to be in our own neighbourhood than in some distant or forward theatre, and that our Armed Services would be conducting joint operations together as the Australian Defence Force.

7. Our alliance with the US gives substantial grounds for confidence that in the event of a fundamental threat to Australia's security, US military support would be forthcoming. However, even though our security may be ultimately dependent upon US support, we owe it to ourselves to be able to mount a national defence effort that would maximise the risks and costs of any aggression.

8. Short of this major, and improbable, situation, we could face a range of other situations that we should expect to handle more independently. It is not our policy, nor would it be prudent, to rely upon US combat help in all circumstances. Indeed it is possible to envisage a range of situations in which the threshold of direct US combat involvement could be quite high. This is as it should be. An alliance does not free a nation from the responsibility to make adequate provision for its own security, or to help support stability and security in its own neighbourhood, should this requirement arise.

9. This self-reliant posture derives essentially from our own national interests and responsibilities. It also accords with our status as an ally of the US, for by accepting our local responsibilities we can contribute to the alliance relationship and to the US global effort.

10. Furthermore, Australian self-reliance would enable us to contribute effectively to any future combined operations with the US, for it would significantly reduce our demands upon US operational and logistic support.

11. Our stance also takes into account our co-operation with our regional friends and we are mindful of our natural associations with the western strategic community, and of our obligations in these respects.

RELATIONS WITH THE US

12. Many important practical advantages flow to Australia from its defence relations with the United States. These include assistance to Australia—unique in comprehensiveness and quality—in intelligence, defence science and technology, military staff contacts regarding tactical doctrine and operational procedures, and military exercising with forces using high technology which is not otherwise available. All this involves the sharing of military information of very high value to Australia.

13. These arrangements greatly assist Australia's defence capability. Moreover, they display to the world Australia's close defence association with the US. Australia's defence activities can, and do, support the US directly and indirectly in a number of areas. Our co-operation, which includes the joint maintenance of defence-related facilities on Australian soil, is also, despite the disparate strength and resources of the two countries, of value to the US.

14. The large US transfer to Australia of weapons technology, research information, tactical doctrine and intelligence could not be expected by a country that failed itself to maintain high standards in the professional employment of forces using modern technology, or that failed to evidence determination to contribute in a meaningful way to the development of defence technology, research and intelligence.

RELATIONS WITH EUROPE

15. Although our West European associates, including Britain, are not in a position to provide significant combat support to us in any defence emergency, they—and particularly Britain—still offer important defence connections.

16. Britain is an important source of intelligence and assessment, of military doctrine, defence science and technology, and advanced weaponry and equipment. European support in fields other than military could be valuable in a defence emergency. They are sources of defence supply, thus enabling us to spread our supply risks. Such considerations support our deliberate policy to maintain and cultivate defence relations with the NATO powers.

AUSTRALIA'S MILITARY STATUS

17. Insofar as we can directly influence developments shaping our strategic prospects, this will often be by the political rather than the military arm of policy.
military capability is, however, directly relevant in some circumstances, and it can in others provide important support for political policy.

18. For this reason, and because of our obligations to others, and against the possibility that we may have to rely upon military force to deter a threat to our interests, it is important that we be seen as a nation that takes defence matters seriously and that our military capabilities and competence should command respect.

19. As indicated earlier, our forces and associated capabilities should be able to operate with substantial independence in our own environment. We should avoid development of defence capabilities that are not relevant to our own requirements.

INSURANCE AGAINST UNCERTAINTY

20. Insurance against uncertainty was mentioned early in this Chapter as a basic principle of our defence planning. This has a number of elements.

21. The first is the maintenance of a substantial force-in-being, which is also capable of timely expansion to deal with any unfavourable developments.

22. Secondly, there must be continuous review of assessments by an expert intelligence organisation to ensure prompt detection of any significant change in the developing strategic situation.

23. This relates, thirdly, to the requirement for maximum warning time or any requirement for expansion of the Defence Force. Constant and close watch must be maintained on whether this warning time is likely to fall short of the lead times—sometimes many years—necessary for expansion, including development and training of the force, organisation of the defence infrastructure, acquisition of equipments, securing supply lines and other external support. Requirements in these respects will, of course, differ according to the nature of the possible threat that is perceived.

24. Fourthly, defence preparations could not be delayed until a definite threat finally emerged. Particularly in the case of more substantial situations, we should need to act well in advance. Our planning and preparations must be responsive to any change perceived as having potential for harming our interests. Preparatory planning and practical measures taken in advance and based upon a capable and versatile force-in-being would substantially reduce the time necessary to organise an effective defence response.

25. Such measures assume that the Government and Parliament of the day would be willing to respond to changes from time to time in the indicators for defence development.

26. The fifth element in insurance against uncertainty is the examination of contingencies—that is situations that, while possible, are not considered likely to occur but that appear typical of the sort of situation that could arise or are important enough to warrant policy attention. As in other countries, our defence planners use contingency studies as a means of systematically exploring future uncertainties and of developing judgments on possible requirements for defence preparedness, in such matters as the force structure, military concepts and command arrangements.

CURRENT REQUIREMENTS FOR DEFENCE CAPABILITY

27. The guidance derived from our present assessments and from our consideration of the likely requirement and scope for practical military measures may be summarised as follows:

- the force-in-being should be capable of performing current and foreseeable tasks and dealing with selected shorter-term contingencies—for example, maintenance and expansion of the training base; sea control in areas of Australia’s maritime jurisdiction; quick detection of and response to any maritime or coastal harassment; aid to the civil power in counter-terrorist operations, as requested and appropriately authorised; exercising with allies and regional defence associates; maritime surveillance and display in areas of Australian interest; support for defence co-operation programs; and contributing to UN peace-keeping;

- the force should be of a size and versatility and possess or have under development or acquisition the structure, equipments and professional skills adequate for timely expansion against a range of contingencies of various types and timings, as indicated by the strategic guidance from time to time and having regard to the long lead times of certain equipments and skills;

- the force-in-being and planned should have a substantial capability for independent operations;

- the force should at all times demonstrate Australia’s serious attitude to defence matters, military competence and capacity to absorb and operate high-technology equipments;

- the capacity to operate effectively with the US should be maintained to the extent relevant to likely commitments.

28. Our assessments of the international situation have not revealed any present likelihood of our being called upon to provide any direct military assistance to our allies or other defence associates. Were this sort of situation to arise in future, in certain circumstances we would be able usefully to support local forces by making available equipments or skills in which they were deficient. Subject to our own national priorities we should expect that such contributions could be provided from our force-in-being at the time.

29. In addition to our strategic prospects, Australia’s physical environment provides further important guidance regarding the specific characteristics that we need in the Defence Force.

ENVIRONMENTAL FACTORS

30. Factors such as geography, population size and distribution, infrastructure, industrial capacity and resources distribution combine to create enduring features in our physical environment.

31. Our country is an island continent, with an extensive maritime resource area. We have no land frontiers. Except in the Torres Strait area, any approach to our continent would involve a transit of the open ocean, by sea or air. Any confrontation or conflict would be, initially at least, maritime in character. The population is relatively small and is largely urban, coastal and concentrated in the south-east. Defence infrastructure or relevant civilian infrastructure are still limited in the north and west.
32. The physical environment of Australia suggests that the characteristics of our force structure should include:

- a good capability for external intelligence;
- capacity for the regular surveillance and patrol of our ocean approaches and maritime resources zone;
- naval and air strike components to deter potential adversaries;
- readily transportable and mobile land forces, with adequate capability for reconnaissance, to meet hostile incursions at remote localities;
- mobile air defence elements;
- elements for the protection of shipping from attack or other interference in Australia’s focal areas and port approaches;
- a capability for sustained operations at long ranges from bases and in areas remote from sources of logistic support.

THE TECHNOLOGICAL LEVEL

33. Australia’s forces should use suitably high technology in Australia’s weapons systems, equipment, training and support. Because Australia has close affiliations with the United States and Western Europe, and sufficiently developed technology to make use of those links, a wide choice is available. Our military technology should be compatible with, but not necessarily equal in technical advancement with, relevant weapons systems of larger allies. To acquire high-level technology in weapons and equipment now throughout our forces may give us advantages in effectiveness, but it would be very expensive. Advanced technology should be favoured where it offers compensating advantages, for example, in simplicity of operation and support, or avoidance of early obsolescence, or sufficient savings in additional equipment, manpower and life-cycle costings or is otherwise particularly suited to Australia’s assessed strategic situation. Australia should aim to maintain its present relatively favourable position, and be prepared to increase selectively the technological level of its forces if this should be called for.

CHAPTER 4

MILITARY CAPABILITIES PLANNED FOR THE FUTURE

INTRODUCTION

This Chapter examines the present capabilities of the Defence Force and in broad terms it describes the types of capabilities the Government proposes, subject to any change that future circumstances require, to create or have in sight by 1981.

2. In determining the resources to be allocated to defence, account has been taken, as already described, of our strategic circumstances, physical environment, military technology and the basic concepts pertaining to the development of the Force. Within this context, the Government has examined broad policy choices available for the kind and size of forces that should be provided. To compose a program, it has examined different levels of total expenditure and different rates of annual growth in expenditure. Through this process, the Government has approved a financial planning ceiling of some $12 000m (in January 1976 prices) for the five-year period 1976-77 to 1980-81.

3. The Five Year Defence Program (FYDP) represents the best present assessment of the ways in which the capabilities of our forces should be varied or enhanced. That assessment has to be looked at again each year, or earlier if there is a significant change in strategic outlook. The FYDP is a planning and programming framework.

4. The Program must not be looked upon as static and unchangeable. The year of acquisition, the number of equipments, and the manning and training of the Force must be capable of variation as changes occur—be it in our strategic situation, in technology, or in the operational concepts and doctrines that may evolve. Other program changes may be imposed by such influences as production realities, cost changes, the availability of needed manpower, or the general level of Australia’s economic and industrial activity.

5. It follows that only annually (at the time of the Budget) are firm Government decisions made and commitments entered into, covering all the different acquisitions and activities planned for the Program in the first of the five years. Plans and projects which are to be put to decision in later years through the normal processes of Government consideration achieve a progressive firming of detail (e.g. quantity, weapon fit, source) as they approach their planned year of decision.

6. This Chapter outlines existing and planned operational and support capabilities of the three Services in terms of maritime warfare, land warfare, air warfare and their components. Attention is primarily given to major weapons and equipments. Paragraph 108 below sets out the decisions that have been included in the 1976-77 Budget.

7. The weapons and equipment form but a part of the defence capability. The Defence Force depends also for its effectiveness on manpower, on logistic support, on its facilities and supporting infrastructure, and on its scientific, technological, industrial and other forms of civilian support. These matters will be treated in later Chapters.
INTELLIGENCE

8. The strategic assessment made by the Government affirms the need for a highly effective intelligence system. Defence policy depends critically on a high level of performance of intelligence monitoring and assessment of international events so as to discern changes in adequate time. As well as the need for basic assessment of the existing and potential military capabilities, deployments and strategic motivation of other countries, intelligence has the responsibility for monitoring developments which could produce pressures or threats against Australia's interests to which a defence response may be needed.

9. Our capabilities and arrangements for meeting these requirements are good. Beyond our immediate environment, we draw considerable benefit from arrangements developed over many years with co-operating countries.

10. Intelligence assessment in support of defence planning and policy is based on the work of professionally qualified staff, both civil and military, with competence in strategic, military, political, economic, scientific and technological fields. This competent national intelligence capability is an accepted and recognised component of the structure of modern government.

11. The program allows for the continuing investment of resources to keep pace technologically with modern defence intelligence-gathering methods; and to develop skilled and experienced staff. Attention is also being directed to a greater coordination of the various components of the Australian intelligence effort. Whether any changes are needed in intelligence practice and organisation for defence purposes in respect of external intelligence is a matter that the Government will consider when it has received the reports of the Royal Commission on Intelligence and Security.

MARITIME SURVEILLANCE, RECONNAISSANCE, AND OFFSHORE PATROL

12. The physical environment of Australia emphasises the importance of maritime surveillance, reconnaissance and offshore patrol, including affirmation of our sovereignty in Australian waters and maritime resources zone. The increasing demand for civil surveillance and patrol, especially following the probable large increase in the resources zone area, is likely to continue.

13. The Defence Force has a variety of elements able to carry out these roles. Some will be strengthened and their capacity will be enhanced during the program period. The forces involved will continue to be trained in defence roles, but will provide an increasing contribution for civil purposes.

14. Largely because of Australia's geographic environment, Long Range Maritime Patrol (LRMP) aircraft will be required at an early stage of the perception of any potential threat, to undertake increased surveillance and intelligence gathering.

15. The present LRMP force consists of ten P3B Orion aircraft based at Edinburgh and twelve Neptune aircraft based at Townsville. The Neptune aircraft will be phased out by 1978 when deliveries of the new P3C Orion commence.

16. The Government has decided to increase the current order for eight P3C Orion aircraft to ten. Edinburgh will become the home base for the total LRMP force, and some improvements will be made there to the technical support and airfield facilities. Some aircraft will be deployed on a rotational or, with quick response-time, on a short-term basis to various RAAF bases, notably those at Pearce, Learmonth, Darwin and Townsville.

17. The new aircraft will have greater speed, range and endurance, and better sensor capability than the Neptune aircraft. An Orion aircraft has a radius of action of over 2000 miles. It can, in one sortie, sweep an ocean area of 300,000 square miles and in so doing detect all surface targets of about 2000 tonnes or greater. For a task 500 miles from its deployment airfield, it can be on station within two hours and remain on task for about eight hours.

18. For detection and localisation of quiet submarines, the new aircraft are planned to be fitted with the Australian-designed and developed Barra directional sonobuoys, and with processing equipment developed in Britain.

19. Patrol craft provide a capability for patrol, apprehension, intelligence, coast-watching, sovereignty visits, survey, and support of law enforcement by civil authorities (such as Customs, Fisheries, and Health). They are also used for search and rescue, fleet support, hydrography and Naval Reserve training. At present seven of the twelve patrol boats are based on Cairns and Darwin for defence and civil surveillance and patrol.

20. The Government has decided to acquire some fifteen new patrol craft with speed, range and seakeeping qualities superior to those of the Attack Class now in service. These new craft will enter service in the period 1979 to 1984. The first one or two will be built overseas and the remainder in Australia. The Attack Class is expected to retire from service from about 1982.

21. Patrol craft can best be used in conjunction with aircraft. Having regard to the probable substantial increases in the resources zone and consequent protective responsibilities, the Government has directed that consideration be given to acquiring short to medium range patrol aircraft, optimised for those various defence and national tasks not requiring the comprehensive and expensive capabilities of RAAF Orions or Navy Tracker aircraft.

22. These and current measures to obtain effective use of our existing patrol craft, augmented by co-operating aircraft and other ships, should provide a sufficient capability for surveillance and patrol of selected areas. Increasing use will be made of other sources of information—particularly from the Australian fishing fleet—in improving the efficiency of locating illegal military and civil incursions into our waters.

23. The Program allows for continuing research on over-the-horizon radar, discussed in a later chapter. An operational system could not be acquired until beyond the program period. Knowledge of new techniques applicable to conventional radar is being maintained. Technologies of sensors and systems operating at visual and infra-red wavelengths are being examined.

24. Many other vehicles and systems contribute substantially to surveillance. They include ships, aircraft, submarines, direction finding and sonar detection systems. In addition, through co-operative arrangements with allies, Australia has access to the skills, technology and product of advanced methods for surveillance and information gathering.
STRIKE, RECONNAISSANCE AND DETERRENCE

25. Australia's strategic and geographic circumstances call for strike forces that can deter attack. The Australian environment also calls for emphasis on strike against maritime targets at sea.

26. The land-based strategic strike capability resides principally in twenty-four F111C aircraft. These provide a core whose effectiveness can be markedly enhanced by improvements to weapons and sensor systems as the technology becomes available.

27. The Government has decided to fit by 1980 sensors to four of the F111C aircraft, to provide an all-weather, long-range reconnaissance capability.

28. Various precision-guided munitions now under development are being considered. These include electro-optical guided missiles and bombs, missiles that can be air-launched at long ranges from the target, and other weapons that would markedly increase aircraft effectiveness and improve their chances of survival.

29. Weapons effectiveness can also be enhanced by aircraft systems for identifying targets in poor weather conditions, and for providing homing signals to guide weapons accurately to their target. Aircraft survivability can also depend on the use of electronic countermeasures systems.

30. The Government has decided on the progressive acquisition of such capabilities for the F111C force. Experience in the use of these advanced technological systems can begin to be gained by the early 1980s.

31. The Program plans the acquisition of a training capability in air-to-air refuelling. Air-to-air refuelling would give the strike aircraft, and also the planned new tactical fighter aircraft, additional range, and would permit increased weapon loads, greater flexibility in the use of airfields, and improved recoverability in bad weather conditions.

32. The potential for strengthening maritime strike has been greatly increased by overseas developments in anti-ship missiles, which are a cost effective means of deterrence. Such missiles include the French Exocet, the Italian Otomat and US Harpoon.

33. Harpoon is part of the weapon fit of the two new guided-missile frigates (FFGs) ordered earlier this year. This sea-skimming missile has an over-the-horizon capability and delays radar detection by approaching its target at very low altitude.

34. A further limited acquisition of anti-ship missiles for destroyers, submarines and P3C aircraft is being considered. Timing of the acquisition will be dependent on satisfactory progress into production overseas.

35. The current sea-based strike capability rests primarily with the aircraft carrier HMAS Melbourne. Its Skyhawk aircraft can operate either from the carrier or from airfields.

36. Additional strike capability is provided by submarines and destroyers. As well, the Army Special Air Service Regiment and commando units can be moved by either air, sea or submarine to carry out strike and reconnaissance tasks.

NAVAL GENERAL PURPOSE WARFARE

37. The naval general purpose forces undertake peacetime and operational tasks ranging from sovereignty control to maritime defence, throughout the neighbourhood and the region.

38. The main naval general purpose warfare element consists of eleven destroyers—two Daring Class destroyers (DD), six River Class destroyer escorts (DE) and three Charles F. Adams Class guided-missile destroyers (DDG).

39. The two Daring Class destroyers are planned to retire in 1982-83, by which time the two new guided-missile frigates (FFGs) will be in service. Each of the FFGs will carry two helicopters, which will add a new dimension to the operations of the destroyer force. The helicopter provides reconnaissance and attack capability, and should permit the ship to make full use of its own weapon systems.

40. The operational lives and effectiveness of the four older River Class destroyers are being extended by a modernisation program for three, and a half-life refit of the fourth. The work on these ships should be complete before 1981. It is then planned to modernise the two newer River Class destroyer escorts in the period 1981 to 1983.

41. An extensive refit program is being undertaken for the three guided missile destroyers. Improvement and modernisation of guns and electronic equipment, and the fitting of a new surface-to-air missile system 'Standard', are underway. New data-handling systems are also being installed which can rapidly evaluate and display a threat and compute effective firing conditions. These three guided-missile destroyers are expected to remain operational until the 1990s.

42. Looking to the early 1980s, provision has been made for the destroyer force to be increased from eleven to twelve. The possibility of acquiring a third FFG is being considered. With a force of twelve destroyers, allowing for peacetime scheduling of refits, some eight to nine destroyers would be available at any one time.

43. To maintain the strength of the destroyer force from 1987 onwards, when the first of the destroyer escorts is due to retire, the Government has commenced investigations into the concepts, characteristics and cost of follow-on destroyers, preferably for construction in Australia.

44. These investigations will be in conjunction with those of missile-armed patrol boats. The number of destroyers to be acquired will also depend on the decision whether to replace the aircraft carrier HMAS Melbourne in the longer term.

45. For training junior naval officers at sea, it is planned to purchase or construct a new training ship to enter service in the early 1980s. The ship would be much simpler and more effective in the training role than the present training ship, HMAS Duchess.

NAVAL AIR WARFARE

46. The carrier HMAS Melbourne and its selected mix of fleet aircraft provide a naval strike capability against maritime forces or land targets. HMAS Melbourne and her aircraft also provide air defence at sea, reconnaissance and surveillance, anti-submarine warfare and facilities for command and control of the Fleet.

47. The Fleet Air Arm is equipped with sixteen A4G and TA4G Skyhawk aircraft for strike, air defence and ground attack; thirteen S2E Tracker aircraft for maritime
reconnaissance and anti-submarine warfare; and nine Sea King anti-submarine helicopters. An additional six S2E used Tracker aircraft are to be purchased. Other naval aircraft, including Macchi trainers, Wessex helicopters and HS748 aircraft, are also used in general support.

48. Investigations have shown that the life of HMAS Melbourne can be extended to 1985, and that it can provide a cost-effective contribution to a variety of our capabilities into the 1980s. The life-of-type of the carrier's aircraft extends beyond 1985.

49. The contribution and the form of capability appropriate in the future once HMAS Melbourne retires are force structure questions having major operational, financial and manpower implications. These are, and have been, the subject of intensive examination in the Defence organisation. It is not a matter requiring decision at this time. A series of operational and analytical studies of naval air power, of the defense of sea lines of communication, and of other kinds of naval air warfare, is continuing. Alternative capabilities are being investigated which involve ships and aircraft. The aircraft might be either sea-based or land-based although a combination of both may prove desirable. In choosing among the various options, account must be taken of the availability and vulnerability of major force units, and the opportunities for exploiting technology which has implications for naval warfare in the future.

50. The ultimate decision will have far-reaching implications for the shape and size of the Navy. The Government proposes to institute funded project development at an appropriate time.

SUBMARINE AND ANTI-SUBMARINE WARFARE

Submarine Warfare

51. Submarines are a potent deterrent with important functions in anti-shipping and anti-submarine warfare, covert reconnaissance/surveillance and patrol, clandestine operations, and mine warfare. They provide the only means of sustained interdiction in areas where local air superiority cannot be established.

52. The force has four conventional quiet diesel-electric attack submarines of the Oberon Class, and a further two submarines under construction should become operational by 1978.

53. The submarines' capabilities are being improved. New fire-control and combat data-processing systems will be fitted from 1977 onwards, and the Government has decided to fit an improved attack/intercept sonar, and anti-submarine torpedoes with longer range and higher capability. The possibility of acquiring an underwater launched long-range anti-ship cruise missile is being considered within the Program.

54. After 1978, two of the six Oberon Class submarines will be in dockyard hands at any one time undergoing scheduled refits. From 1979, submarines will be based at Cockburn Sound.

Anti-Submarine Warfare

55. The effectiveness of submarines, and the complexities of the medium in which they operate pose very difficult problems for the defender and impose a disproportionately high strain on his resources. Emphasis has been given to indigenous development of a variety of new and more effective systems for anti-submarine warfare, and to the collection of data on the acoustic properties of the oceans surrounding Australia.
Ground Combat
66. The conduct of the land battle requires coordinated action by the fighting arms, which are supported by the logistic services. To facilitate command and control, the Regular Army division is at present grouped into three restricted task forces, each of two infantry battalions with supporting arms and logistic units.

67. Firepower additional to that developed by infantry-manned weapons is provided principally by supporting armoured and artillery units, by close air support and, in some circumstances, by naval gunfire. Close air support can be provided by tactical fighters of the RAAF and by Navy Skyhawk aircraft.

Armour and Anti-armour
68. Major equipments of armoured units are tanks, fire support vehicles, light reconnaissance vehicles and armoured personnel carriers.

69. In addition to reconnaissance, the roles of armoured units include the provision of armoured mobility, close fire support for the infantry and long-range defence against enemy armour.

70. The Government will buy a further fourteen Leopard tanks to add to the eighty-seven tanks already ordered. This will then provide sufficient tanks to allow training by a full armoured regiment, while at the same time maintaining equipments in the training organisation and repair pools. This total order of 101 provides for gun tanks, recovery vehicles, bridge layers, bulldozer tanks and mine cleaners. The procurement of further specialist armoured vehicles is under examination.

71. Investigations are in hand to select suitable short, medium and long range anti-armour weapons. The investigations should lead to later specific procurement proposals from Army, and new equipments will begin to enter service from 1981 onwards.

Artillery
72. Regular Army elements of the Field Force are equipped with 105 mm howitzers and 5.5 inch medium guns.

73. Developments overseas have proceeded to the stage where the Army is now conducting trials in Australia of new 105 mm howitzers and 155 mm medium guns. A decision should be taken on the acquisition of these types of guns in time for introduction into service by the early 1980s.

Surveillance and Reconnaissance
74. Surveillance and reconnaissance of the battlefield entails the use of armoured reconnaissance vehicles, fixed- and rotary-wing aircraft, combat surveillance equipment and dismounted patrols.

75. Substantial improvements are planned in the program period in mortar- and gun-locating equipments, night observation equipment, surveillance radars and navigation equipment, and sensors available to the Field Force.

76. The tactical reconnaissance capability of the Mirage has shortcomings which will be taken into account in the selection of a replacement fighter aircraft.

Battlefield Air Defence
77. A capability for low- and very low-level air defence over the battlefield is required to complement the air defence capability provided by fighter aircraft.

78. By 1980 there will be a capability to train in the techniques of low-level air defence with the introduction into Army of the Rapier surface-to-air missile system. Sufficient elements of the system will be provided to enable a limited operational deployment. The Government has decided to proceed now with the acquisition of specialised radar equipments which will give Rapier an all-weather performance.

79. Army is equipped with the Redeye missile for very low-level air defence. New and improved equipments are expected to be available by the early 1980s, and studies in progress are examining various alternatives to the Redeye system, including a mix of missiles and guns.

Tactical Mobility and Logistic Support
80. It has been said that our ground forces need to be highly mobile. This mobility is primarily conferred by organic vehicles and equipments, by sea and air transport support from the Navy and RAAF, and by an appropriate logistic support capability.

81. Armoured units are able to make use of their inherent mobility in most parts of Australia. An armoured personnel carrier squadron, for example, can lift an infantry battalion. Army has at present some 750 armoured vehicles of the M113 family of carriers in various configurations.

82. A new light general service truck (Landrover) is entering service this year, and the introduction of a new medium general service truck is planned. But tactical mobility in the field depends also on the ability to construct roads, tracks and small airfields, to lay and breach minefields, and to cross gaps. The acquisition of a wide variety of construction equipment is being considered and new air-transportable medium girder bridges will improve gap crossing capability. The mobility of the Army should be considerably improved during and beyond the program period.

83. RAAF aircraft for employment in a short range tactical air lift role include twenty-two Caribou Short Take-off and Landing (STOL) aircraft, forty-seven Iroquois utility helicopters, and twelve Chinook medium lift helicopters, six of which are not in operational service.

84. An operational Iroquois squadron supporting the Army can carry a single company group in one lift, and the Chinooks, if all were brought into service, could transport a field artillery battery and its supporting ammunition in one lift. These aircraft are considered to provide an adequate capability within the force-in-being.

85. In the longer term, the Caribou will need to be replaced and the Government has initiated a project development, including an industry feasibility study. Responses will be sought from manufacturers and users interested in collaborating with Australia in the development of an existing or a new aircraft type to satisfy Australia’s need for a new tactical fixed-wing short range transport aircraft in the mid-1980s.
The Government intends to improve the logistic support available in the Services in order to increase their capacity for action independent of allies when necessary. The nature of the Australian physical environment renders this difficult, because of the comprehensive nature of logistics. Logistic support embraces the acquisition, movement, distribution, maintenance, repair, evacuation and disposition of matériel, personnel, facilities and services.

AIR DEFENCE

There are at present three squadrons of Mirage III–F fighters, and fourteen Mirage dual seat trainers. Two of the squadrons are deployed to Malaysia and the third is based at Williamtown, NSW. The Mirage squadrons will be progressively phased out during the early 1980s when new tactical fighters and associated weapons are planned to be introduced.

The Government has decided to proceed now with project development for the acquisition of the new tactical fighters. It is expected that, subject to all of the necessary evidence being accessible, a decision on the generic type of aircraft will be made in this financial year after the examinations described below.

Tactical fighters and their associated weapons have been developed to such a stage of diversity that it is probably no longer practicable for pilots to be operationally efficient in the whole range of skills required in air-to-air and air-to-surface roles.

In the interest of flexibility, there could be a case for acquiring a multirole aircraft and for training pilots in one role but with the potential to convert rapidly to another. Alternatively, there are specialised surface attack aircraft that may prove to be more cost-effective in the ground-attack and maritime-attack roles. For these reasons, the case for acquisition of multior role or specialised aircraft, or a combination of both, is under investigation.

Detailed investigations will continue on the type or types of aircraft to be acquired, and the priority for the air-to-air or the air-to-surface components. In order to evaluate competing aircraft, information is being accumulated on such matters as performance, cost, delivery schedules, programs for development and for reduction of technical risk, and on opportunities for Australian industrial involvement.

To complement the tactical fighter force, and to provide for the exercise of an integrated air defence system, consideration is being given to the acquisition of medium-range surface-to-air missiles.

Obsolescent air traffic control radars and precision approach radars at the RAAF and RAN bases are being replaced. Tactical radars capable of being carried by a C130 aircraft are planned to enter service by 1979. The radars of the two Hubcap air defence systems are also being replaced. An air defence radar system provides a vital service in air defence operations by detecting and identifying hostile aircraft, and by effecting tactical control of intercepting fighter aircraft. In the longer term, the horizon radar (if proven and economically viable) could make a significant contribution to Australian early warning capability.

Advanced jet training is carried out in Macchi aircraft, which are expected to reach life of type during the first half of the 1980s. The government has initiated investigations on a replacement aircraft, and manufacturers are to be invited to submit proposals. Early consideration of this requirement will widen the opportunity for a collaborative program involving Australian industry.

STRATEGIC MOBILITY

The distances involved in our physical environment demand that long-range mobility by land, sea and air should be available to the force from the Defence inventory, complemented by civil aircraft, merchant shipping and other transportation facilities as may be available. Within Australia, restrictions could be imposed on mobility by the locations and limitations of existing ports, airfields, roads and railways.

The recent decision to acquire an amphibious heavy lift ship (HMAS Tobruk) will provide, independently of established port facilities, a capability for the sea movement of heavy military cargoes such as the vehicles, weapons and equipment of armour, engineer, terminal and airfield construction units, as well as up to about 500 troops. The ship will also have the ability to work with helicopters, including Sea King and Chinook. The six heavy landing craft in service will complement this heavy lift ship. Both types of vessel will provide a useful capability for civil emergency and disaster relief.

The Government decided earlier this year to proceed with the order for twelve C130H Hercules transport aircraft which will enter service by 1978 and which will replace the twelve C130A aircraft currently in use. These new aircraft, together with the twelve existing C130E Hercules, should meet peacetime requirements of all three Services. This capability may be supplemented in the longer term, subject to availability, by the airlift capability of the air-to-air refuelling aircraft already mentioned.

OCEANOGRAPHY, HYDROGRAPHY AND LAND SURVEY

Oceanography and trials

Extensive oceanographic data is required to permit effective submarine and anti-submarine operations. Oceanographic research is also an important requirement for national development.

A new oceanographic ship (HMAS Cook) is being constructed to replace the limited capability of HMAS Diamantina which is of World War II vintage. A new trials and research ship to replace HMAS Kimbla and to enter service by the early 1980s is also contemplated.

Hydrography

HMAS Ships Moresby and Flinders have the capacity to carry out only the minimum surveys essential to national development. Work has concentrated on the opening up of new ports, particularly in the north of Australia, and the charting of safe passageways for ships of increasing draught. Much work remains to be done.

In view of this, the program provides for the construction of a further two ships and six large survey launches to perform additional hydrographic tasks in the 1980s. The first of these ships would be locally constructed and would probably be of a design similar to that of HMAS Flinders.

The possibility of introducing laser and photographic techniques for shallow water survey is being examined. It could, if proven, considerably enhance the capability for data collection at a small increase in cost.
Land Survey

103. Continuing effort is planned for both Army and Air Force units in carrying out land survey, mapping and aeronautical charting of Australia. Under co-operation programs with the governments of Papua New Guinea and Indonesia, parts of those countries are also being covered. The life-of-type, and possible replacement, of Canberra aircraft used for survey photography are being investigated.

COMMUNICATIONS

104. To exercise effective command and control there is a need for rapid, flexible and secure strategic and tactical communications. A new Australia-wide fixed Defence communications network is planned to be introduced progressively through the 1980s. It will replace existing single Service networks. Other major communication equipments planned are directed to improving the Services tactical and long range communications, and their security.

ELECTRONIC WARFARE

105. There have been rapid technological developments overseas in all aspects of electronic warfare. This form of warfare takes advantage of the fact that communications systems, radars and various weapon systems rely on radiated energy for their effective operation. This energy is often susceptible to deliberate interference by an adversary, unless suitable electronic countermeasures are developed.

106. The modernisation of electronic warfare equipment in all three Services is planned. For training in electronic warfare, the two Navy HS748 aircraft are being fitted with equipment to simulate some of the electronic environment which can be expected in combat situations. The setting up of a ground-based facility for air electronic warfare training is being investigated.

107. In the Australian scientific field attention is being given to devising counters to electronic warfare threats, especially in naval warfare, air defence, tactical air support, strike and reconnaissance.

SUMMARY OF MAJOR EQUIPMENT DECISIONS

108. The Government has decided in the 1976-77 Budget to acquire the following major equipment items. The estimated total project costs provide for the purchase of prime equipment, associated support items including training, and for the cost of capital works, contract administration and Australian industry participation, where these are applicable. Final equipment selections will be based on achieving the best overall result in terms of operational performance, delivery timetables, cost, product support and Australian industry participation. Also all acquisitions are subject to reaching satisfactory financial and contractual terms and conditions with the supplier.

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<th>NEW EQUIPMENT ACQUISITION DECISIONS 1976-77</th>
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<tr>
<td>Estimated Total Project Cost (January 1976 Prices)</td>
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<td>-------------------------------------------------------------------</td>
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<tr>
<td>15 Patrol Craft ... 115m</td>
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<td>2 Orion P3C Aircraft (LRMP) ... 25m</td>
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<tr>
<th>Estimated Total Project Cost (January 1976 Prices)</th>
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<tr>
<td>All-Weather Radars—Rapier ... $20m</td>
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<td>F111C Reconnaissance Pallets ... 19m</td>
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<tr>
<td>Submarine Attack/Intercept Sonars ... 14m</td>
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<tr>
<td>14 Leopard Tanks ... 13m</td>
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<td>Minehunters (Long Lead Items) ... 13m</td>
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<td>Anti-submarine torpedoes ... 9m</td>
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<td>4 Water/Fuel Lighters ... 7m</td>
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<td>Barra Sonobuoys ... 6m</td>
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<td>Jindivik Target Aircraft ... 4m</td>
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<td>CT30H Simulator ... 4m</td>
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<td>6 S2E Tracker Aircraft ... 1m</td>
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109. The Government has also decided to proceed with project development (planned for later acquisition) of the following items:

- New Tactical Fighter (TFF)
- Tactical Transport
- Jet Trainer
- Follow-On Destroyers