CHAPTER 5
DEFENCE MANPOWER

THE MANPOWER RESOURCE

Experienced and skilled men and women are obviously key elements of the Defence Force. Manpower is a primary resource and an essential component of Defence capability. The costs associated with recruiting, training, retraining, accommodating and then providing properly for the retirement of personnel make them major capital assets.

2. This is especially true of a force of limited numbers designed to be capable of timely expansion as is the case in Australia. This concept demands that all the necessary skills be at hand or capable of timely development as the need is foreseen.

3. Many of the skills required in the Defence Force and in the civilian support staff are either not available in the civilian community, or require retraining to render them applicable to defence. Some skills take years to develop.

4. The effectiveness of defence activity is largely dependent on achieving the proper balance of expenditure on capital investment, manpower and operating costs.

5. Because manpower is a costly resource, close attention must be given to its efficient use. This requires the continuing improvement of organisation and of management practice in the Services, and in the various civilian activities under the control of the Department of Defence. Efficient use of manpower also calls for continuous review of the essentiality of present Service and civilian activities, and the ways in which we can achieve savings in the use of manpower. This must be done without compromising the retention of a force which contains all the elements that are needed to provide an adequate basis for effective expansion, should strategic circumstances call for greater defence readiness.

6. In recent years manpower has come to absorb too large a portion of the Defence Vote. The Program plans to reverse this trend by its emphasis on capital investment, manpower and operating costs.

MANPOWER LEVELS

7. Defence manpower presently comes from three sources:
   • the volunteer permanent forces which total approximately 69 000;
   • the reserve forces totalling approximately 40 000; and
   • some 33 000 civilians in various specialist and support functions.

8. The balance among and within these components requires careful consideration, taking account of the wide spectrum of activities; of the contribution of each of these activities to the defence effort in peace and in a mobilisation situation; and having regard to the comparative costs per unit of manpower employed in each category.

9. A guide to the categories in which full-time Service and civilian personnel are employed is given in Table 1. This allocation is based on a particular set of programming attributes of duties; different assumptions might lead to somewhat different numbers in each category.

TABLE 1: DISTRIBUTION OF DEFENCE MANPOWER
(As at 30 June 1976)

<table>
<thead>
<tr>
<th>Service Civilian Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combat Forces 23 600 23 600</td>
</tr>
<tr>
<td>Direct Logistic Support to Combat Forces 6 400 900 7 300</td>
</tr>
<tr>
<td>Specialist Support (eg. Medical Services, Communications, Hydrographic, Survey, etc) 5 300 1 000 6 300</td>
</tr>
<tr>
<td>Stores and Supply 3 200 5 000 8 200</td>
</tr>
<tr>
<td>Workshops and Repair Facilities 2 900 900 3 800</td>
</tr>
<tr>
<td>Quality Assurance Inspection 100 1 300 1 400</td>
</tr>
<tr>
<td>Naval Dockyards—Construction and refit program 100 5 300 5 400</td>
</tr>
<tr>
<td>Training Staff, Direct Support and Servicemen in Training 17 700 1 800 19 500</td>
</tr>
<tr>
<td>Support to Reserves and Cadets 1 600 100 1 700</td>
</tr>
<tr>
<td>Research and Development 400 5 700 6 100</td>
</tr>
<tr>
<td>Central and Departmental Functions and Specialist Administrat- ices Services 2 300 3 700 6 000</td>
</tr>
<tr>
<td>Defence Regional Offices—provide financial, audit civil personnel and management support to the Services and the Department in all States 1 900 1 900</td>
</tr>
<tr>
<td>Service Command and District HQs and Administrative Units—provide administrative support to Service Units and Establish- ments in all States 5 200 2 900 8 100</td>
</tr>
</tbody>
</table>

68 800 30 500 99 300

Note: (a) Above figures have been rounded.
(b) Civilian figures exclude 1300 locally engaged civilians in support of military deployments overseas, 900 persons on extended leave and 400 part-time staff.

Service Regular Manpower

10. The manpower levels and range of skills within the RAN and the RAAF are primarily determined by the number and types of equipments in service and planned to enter service, and the levels of operational activity to be maintained by our ships and aircraft. Considerable emphasis is being given to the design or acquisition of ships, equipments and systems which economise in the use of manpower.

11. Concurrently with the increases decided by the Government in the acquisition of stores and equipment and in training and exercise activities, Navy and Air Force manpower ceilings are planned to increase modestly in 1976-77. Naval manpower ceilings will rise by about 100 to about 16 215. Air Force manpower is also planned to increase by about 100, to about 21 650. These increases are the first for a number of years. Further manpower increases are planned to occur in later years, but their size and timing will depend on timing of equipment acquisitions, and on the extent of any manpower savings that may be thrown up by continuing reviews.

12. In the case of Army manpower, strengths must be at a level which permits development, within the concept of a force capable of expansion as elsewhere described, of the necessary range of military skills, tactics, command and control and operational procedures, and which permits the manning of weapons and equipment in service and to be acquired.
13. With these factors in mind, the Government has decided to increase the size of the Army. The Regular Army will increase from 31 500 to 34 000 and it is planned that the Reserve element will rise from 20 500 to a minimum of 25 500 by the end of the program period on 30 June 1981. In 1976–77 the increases will be some 300 and 1000 respectively.

14. No change is planned in the number of Regular battalions, but there will be a strengthening of Regular Field Force units and improvements in logistic support. This will enhance the ability of the Regular Army to sustain operations of increased duration and intensity.

15. The Government intends that women in the Services should now have greater job opportunities and closer equality with men in training and conditions of service. It has also been accepted that women would be permitted to serve in areas where hostilities were in progress, but they would not be employed as combatants or at sea.

16. An historical perspective of full-time Defence Force personnel is given in Table 2.

**TABLE 2: PERSONNEL STRENGTHS OF THE DEFENCE FORCE 1966-1976**

(As at June each year)

<table>
<thead>
<tr>
<th>Year</th>
<th>Navy</th>
<th>Army</th>
<th>Air</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1966</td>
<td>14 633</td>
<td>24 583</td>
<td>8 119</td>
<td>32 702</td>
</tr>
<tr>
<td>1967</td>
<td>15 764</td>
<td>25 721</td>
<td>15 671</td>
<td>41 392</td>
</tr>
<tr>
<td>1968</td>
<td>16 294</td>
<td>27 152</td>
<td>15 688</td>
<td>42 840</td>
</tr>
<tr>
<td>1969</td>
<td>16 758</td>
<td>28 044</td>
<td>15 871</td>
<td>43 915</td>
</tr>
<tr>
<td>1970</td>
<td>17 089</td>
<td>28 305</td>
<td>16 208</td>
<td>45 513</td>
</tr>
<tr>
<td>1971</td>
<td>16 997</td>
<td>28 107</td>
<td>15 662</td>
<td>44 769</td>
</tr>
<tr>
<td>1972</td>
<td>16 890</td>
<td>29 326</td>
<td>11 947</td>
<td>44 170</td>
</tr>
<tr>
<td>1973</td>
<td>17 215</td>
<td>31 151</td>
<td>2 839</td>
<td>41 191</td>
</tr>
<tr>
<td>1974</td>
<td>16 141</td>
<td>30 197</td>
<td>38</td>
<td>53 516</td>
</tr>
<tr>
<td>1975</td>
<td>16 094</td>
<td>31 514</td>
<td>31 514</td>
<td>68 122</td>
</tr>
<tr>
<td>1976</td>
<td>15 993</td>
<td>31 430</td>
<td>31 430</td>
<td>68 853</td>
</tr>
</tbody>
</table>

17. The composition of the Defence Force at June 1976 is shown in Table 3. The distribution between the different ranks reflects the responsibilities in the activities of the Services as they are discharged in present circumstances. At the same time, the proportion of officers and warrant and senior non-commissioned officers to junior ranks increases the capability for expansion, should this be necessary.

**TABLE 3: COMPOSITION OF PERMANENT DEFENCE FORCE(a)**

(Strengths as at 30 June 1976)

<table>
<thead>
<tr>
<th>Service</th>
<th>Navy</th>
<th>Army</th>
<th>Air</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male - Officers</td>
<td>1 778</td>
<td>4 009</td>
<td>3 345</td>
<td>9 132</td>
</tr>
<tr>
<td>Warrant and Senior NCOs</td>
<td>3 454</td>
<td>6 320</td>
<td>4 113</td>
<td>13 887</td>
</tr>
<tr>
<td>Junior Ranks</td>
<td>8 671</td>
<td>18 253</td>
<td>12 120</td>
<td>39 044</td>
</tr>
<tr>
<td>Cadets</td>
<td>293</td>
<td>481</td>
<td>310</td>
<td>1 084</td>
</tr>
<tr>
<td>Apprentices</td>
<td>363</td>
<td>819</td>
<td>323</td>
<td>1 505</td>
</tr>
<tr>
<td>Junior Recruits</td>
<td>583</td>
<td>1 078</td>
<td>583</td>
<td>1 244</td>
</tr>
<tr>
<td>Total</td>
<td>15 142</td>
<td>29 882</td>
<td>20 211</td>
<td>65 235</td>
</tr>
</tbody>
</table>

Female - Officers | 51 | 153 | 126 | 330 |
Warrant Officers and Senior NCOs | 62 | 107 | 69 | 238 |
Junior Ranks | 738 | 1 288 | 945 | 2 971 |
Total | 851 | 1 548 | 1 140 | 3 539 |

**Total strength** | 15 993 | 31 430 | 21 351 | 68 774

(a) Citizens Forces and Reserves on full-time duty are included in the appropriate category.

**Reserve Manpower**

18. The reorganisation of the Army Reserve, which is now entering its final phase, and increases in its strength should permit more effective training and employment than hitherto has been possible.

19. The Government's aim is to consolidate the concept of one army in two constituent parts—Regular and Reserve—and to provide a greater sense of purpose and immediacy for those who sacrifice leisure to join the Reserve forces. Greater peacetime use of Reserves is under close consideration in accordance with the "Total Force" policy.

20. There is, at any one time, a margin of preparedness and operational efficiency between the Regular and Reserve elements. The margin cannot, for obvious reasons, be eliminated in peacetime. However, Parliament may well wish to consider whether the purpose of better training and better sense of participation would justify provisions authorising compulsory call-up of Citizen Reserves for limited periods in international situations proclaimed as requiring augmentation of the forces, but not proclaimed as a state of war or time of defence emergency; or for short-term assistance to the civil authorities during a natural disaster. Such a change would require the amendment of the relevant law; before such legislation is considered, the Government would wish to hear the views, not only of members of the Reserve, but of employers and other interested parties, and of the community at large.

21. A breakdown of strengths of Service Reserves is given in Table 4.

**TABLE 4: DEFENCE RESERVE STRENGTHS—JUNE 1976**

<table>
<thead>
<tr>
<th>Service</th>
<th>With Training Obligations</th>
<th>Without Training Obligations</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Navy</td>
<td>1 020</td>
<td>4 100</td>
<td>5 120</td>
</tr>
<tr>
<td>Army</td>
<td>21 180</td>
<td>7 980</td>
<td>29 160</td>
</tr>
<tr>
<td>Air</td>
<td>460</td>
<td>5 940</td>
<td>6 400</td>
</tr>
<tr>
<td>Total</td>
<td>22 660</td>
<td>18 080</td>
<td>40 680</td>
</tr>
</tbody>
</table>

**Civilian Manpower**

22. Civilian personnel, in a wide range of skills and activities, are required to contribute to the total defence effort. A variety of professional skills is needed in defence planning, assessment and analysis areas and in management, including industrial management. Some are needed for the highly professional research, design and development work associated with new or modified equipment. Others are needed to
provide financial and negotiating experience in the policy deliberations and negotiaciones governing the very large financial commitments involved in obtaining weapon systems for the Defence Force. A substantial number are employed in the dockyards for production, maintenance, repair and refit of warships. Others perform such necessary tasks as storesmen, cleaners, clerks and groundsmen. Defence outlay carries a commitment for civilian manpower supervising the operations of government-owned factories which produce munitions or other defence material.

23. The employment of civilians on appropriate tasks, not demanding deployment in war, avoids certain costs associated with the special terms of employment of Service personnel. Furthermore, the placement of civilians including specialists in support area positions, which do not require military knowledge or skills, frees Service personnel for duty in operational units.

24. Table 5 shows the organisational distribution of civilian manpower.

### TABLE 5: CIVILIAN MANPOWER STRENGTHS—ORGANISATIONAL DISTRIBUTION—30 JUNE 1976

<table>
<thead>
<tr>
<th>Category</th>
<th>Strengths</th>
</tr>
</thead>
<tbody>
<tr>
<td>In direct support (in Australia and overseas) and under the control of the Chiefs of Staff</td>
<td>4850</td>
</tr>
<tr>
<td>Chief of Naval Staff</td>
<td>6350</td>
</tr>
<tr>
<td>Chief of General Staff</td>
<td>4450</td>
</tr>
<tr>
<td>Dockyards</td>
<td>15650</td>
</tr>
<tr>
<td>Defence Central Divisions and Specialised and Servicing Organisations to the Defence Force</td>
<td>3300</td>
</tr>
<tr>
<td>Administrative, Financial, Personnel and other Support for the Defence Force in the States</td>
<td>1900</td>
</tr>
<tr>
<td>Defence Science and Technology</td>
<td>5650</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>31800</td>
</tr>
</tbody>
</table>

Note: Strengths exclude 900 persons on extended leave and 400 part-time staff. Figures have been rounded.

25. Almost two-thirds of the civilian staff are employed in and under the control of the Service Commands and in the naval dockyards. About half the remainder are engaged in work associated with Defence science and technology.

26. Total civilian employment levels are to be reduced during 1976-77 in line with the Government’s general economic policy. After doing all that is possible to improve productivity in performing existing functions within these reduced ceilings, it is expected that there will be a need for some reductions of activities carried out by civilians. In addition, there will be some redistribution of manpower as a result of foreseeable policy changes. For example, there will be a reduction in the activities and facilities required by the two Governments in the joint U.K./Australia project at Woomera and the Weapons Research Establishment at Salisbury, resulting in a reduction in manpower. To achieve Navy’s repair, refit and construction programs, allowance has been made to increase Defence dockyard employment in 1976-77.

27. Modest increases in manpower will be necessary over the later program period in areas associated with the new major equipment acquisitions for the Services.

### CONDITIONS OF SERVICE FOR MILITARY PERSONNEL

28. The quality and motivation of personnel are major determinants in the effectiveness of the defence effort. A volunteer force has to be attracted to service and encouraged to remain; good morale is essential. There are many considerations. One is that there need to be satisfactory financial and non-financial conditions of service. It is a fundamental Government policy that members of the Defence Force and their families should share in rising community standards.

29. The Defence Force is a large, distinct and important area of Crown employment. Financial conditions of service, whilst in principle based on Public Service provisions, are determined with regard to the requirements and circumstances of the Defence Force; and the special nature of particular areas of performance of duty, or of the duty itself, involves the determination of some financial conditions that are unique to the Defence Force.

30. Pay and financial conditions of service are approved by the Minister for Defence on behalf of the Government after a process of advice which is designed to satisfy wage-fixing principles and equity. The Minister is advised through machinery which brings Defence Department expert analysis on industrial matters before Departmental officers, the Service Chiefs of Personnel and a senior Treasury officer.

31. Complementing the Departmental advisory machinery is an independent body, reporting direct to the Minister and external to the Defence and Service administrations—the Committee of Reference for Defence Force Pay. This body has an important part to play in an area of employment where there are no contending parties, and where the opportunity for independent counsel would otherwise not exist.

32. The Committee through its Chairman, who is a Deputy President of the Conciliation and Arbitration Commission, and through one of its two members who is a Commissioner of that Commission, provides a significant link with the civilian industrial relations system for determining just conditions. The third member is a retired senior Service officer.

33. Improvements have been made in satisfying statutory requirements more quickly, so that financial entitlements of Service members may be more promptly met, especially when adjustments of pay or other conditions of service are frequent.

34. Finally, there is a range of termination benefits to assist in the resettlement of servicemen and women in civilian life. They include resettlement training and retirement benefits geared to Defence Force conditions of engagement and service.

35. The new Defence Force Retirement and Death Benefit Scheme enables members of the Regular Forces to qualify for a pension after 20 years’ service and to exercise career options without suffering undue retirement benefit penalties. In comparison with the separation patterns of male officers prior to the introduction of the new scheme, it appears that fewer officers now leave early in service before becoming eligible for a pension. At the same time, the trend is towards fewer officers remaining until full retirement age; instead they may retire at a slightly earlier age, being eligible for a pension under the new scheme. Table 6 provides some details of male officers separations over the last four years.
36. Of the 740 officers who separated from the Defence Force during 1975-76, 417 (56 per cent) resigned their commission after having qualified for a pension but before reaching maximum retirement age and 164 (22 per cent) resigned before serving long enough to receive a pension entitlement (ie, normally 20 years).

37. Premature retirement by officers represents, in some cases, an undesired loss of skill and experience acquired at considerable cost. The extent of such retirements has in the past attracted Parliamentary discussion and it is believed that both sides of Parliament would hope that the loss of officers would stabilise at an acceptable level. The statistics available suggest that this may be happening.

38. The number of male other ranks who, on completion of their term of engagement, re-engaged for a further term, has improved significantly in recent years. Table 7 shows the percentage of re-entries of men in this category for the past five years.

**TABLE 7: MALE OTHER RANKS PERCENTAGE RE-ENGAGEMENTS**

<table>
<thead>
<tr>
<th>FY</th>
<th>Navy*</th>
<th>Army</th>
<th>Air Force</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971-72</td>
<td>44</td>
<td>69</td>
<td>66</td>
</tr>
<tr>
<td>1972-73</td>
<td>58</td>
<td>73</td>
<td>70</td>
</tr>
<tr>
<td>1973-74</td>
<td>61</td>
<td>72</td>
<td>75</td>
</tr>
<tr>
<td>1974-75</td>
<td>70</td>
<td>74</td>
<td>82</td>
</tr>
<tr>
<td>1975-76</td>
<td>67</td>
<td>73</td>
<td>81</td>
</tr>
</tbody>
</table>

* The Navy’s initial engagement period is longer than for the other two Services.

39. The average length of service of female other ranks is generally much lower than that of males.

**DEFENCE FORCE OMBUDSMAN**

40. A Defence Force Ombudsman has been appointed to investigate any individual grievance arising from the administration of an Act, Regulation, Order or Instruction which wholly, or in part, affects the rights of a member or ex-member of the Defence Force, or eligible dependants. Legislation to cover the appointment is being prepared and will be introduced into Parliament as soon as practicable. Complaints related to rights of persons as citizens are not investigated.

**TRAINING AND EDUCATION**

41. The efficient operational use of national resources devoted to defence, and the management of these resources, call for a large continuing commitment to training and education programs.

42. Training commences with the induction of recruits. Between 8000 and 9000 replacement enlistments—some 13 per cent of the Regular Force—receive training each year in up to 340 different employment categories.

43. Particular importance is attached to acquiring and maintaining in the Services the technical skills requiring long training times. For example, the Services have excellent apprentice training schemes and are leaders in the field of adult apprentice ships.

44. Most training programs are manpower intensive, requiring high instructor/student ratios and extensive sub-professional and domestic supporting staffs. Whilst every opportunity is taken to use suitable civilian institutions, in-service training and education account for almost 20 per cent of Defence Force manpower, spread across all ranks.

45. Professional development of officers includes a series of courses planned at appropriate stages in their career. These range from the provision of full tertiary education for a proportion of those entering Service cadet colleges and academies, through professional training of selected officers at single Service and Joint Service Staff Colleges, to higher studies, usually overseas, for particular senior Colonel/Brigadier-level officers.

46. Because of Australia’s size as a nation, there is special value in officers receiving training and having service in Britain and the United States. In this way they have access to the knowledge and practical experience of military doctrine, management and techniques of a major military and industrial nation, which can afford training institutions and other specialist facilities which it would not be economic to maintain in Australia. Officers and senior NCOs are sent on exchange postings to other countries including the United States, Britain, Canada and New Zealand.

47. Considerable overseas technical training is required of Service personnel, and some civilian specialists, for the particular purpose of enabling new equipments to be introduced into service and maintained with safety, operational effectiveness and economy. This is a fundamental part of the investment in modern, expensive weapons, and the ships and aircraft and other vehicles that carry them.

48. Altogether it is planned that some 700 personnel proceed overseas for these various types of training—independently of operational exercises—during FY 1976-77 and the number may grow during the Five Year Program.

49. The Government has agreed in principle to the concept of establishing a Defence Force Academy in Canberra to replace the degree-education currently provided in association with Universities at the three separate Service Colleges at Jervis Bay, Duntroon and Point Cook. This will enable the advantages of scale to be exploited. There will be advantages in the range of degree courses that can be offered; in the calibre of staff that can be attracted; in the recognition that can be gained for degrees conferred; and in the economic use of resources.

50. An investigation is also being made into the feasibility of collocating the single Service Staff Colleges with the Joint Service Staff College, to be wings of an Australian Services Staff College.
51. These projects are designed to improve the undergraduate education and post-graduate professional development of career officers, and to further mutual understanding between the Services.

52. Courses for the civilian elements of Defence manpower include induction training for new entrants, apprentice training, technical training at the sub-professional level, tertiary education, training to improve old and provide new administrative and management skills, and courses designed for the further development of higher executives.

53. In summary the major program decisions concerning Defence manpower are:
- In 1976-77 the ceilings for the permanent Navy, Army and Air Force are to be raised by 100, 300 and 100 respectively;
- In 1976-77 Army Reserve strengths are to rise by about 1000;
- In 1976-77 overall civilian strengths are to be reduced, but dockyard employment to be increased to cope with Navy's repair, re-fit and construction programs;
- Over the five years of the Defence Program, the ceiling strength of the Regular Army is to rise by 2500 to 34000 and the permanent Navy and Air Force ceilings to be increased as necessary to man new equipments and undertake increased activities;
- Over the five years of the Program, the strength of the Army Reserve is to be increased by about 5000;
- Over the five years of the Program, modest increases in civilian strengths are planned to provide support for the Services.

CHAPTER 6
ACTIVITIES OF THE DEFENCE FORCE

Factors which are sometimes not entirely reconcileable influence Defence Force activities in peacetime. The activities which the Government has approved represent balances between immediate capability and provision of a basis for expansion in a threat situation; between development and consolidation; and between training and peacetime operational use.

2. The costs of immediate capability and operational readiness are high in respect of manpower, and logistic and technical support. They have to be balanced against other necessary activities of the Force.

3. As described in earlier Chapters, there has been a shift in the country's strategic circumstances, leading to a need to develop the capability to operate more independently of allies and in a wide range of environmental conditions.

4. In past operational circumstances, Australia has, for reasons of economy or because of deficiencies, relied on allies for some logistic and other support. We have not had the full range of logistic units and equipment necessary for independent operations.

5. For example, in Vietnam the Australian Force relied on United States' logistic support for items such as food, some ammunition and bombs, and some spare parts. We necessarily relied on the US Forces for medium-lift helicopter support which we did not then possess; and we relied on the US for aerial reconnaissance, medium artillery and close air support, for some air transport and for certain hospital facilities, which we did not have in-theatre.

6. The Government's policy of greater operational self-reliance requires increased emphasis on our logistic support capacity; much has already been done and further effort is to be directed to that end.

7. Improvements are planned in our capacity to operate in areas remote from our bases, and to develop our infrastructure and bases, especially in the north and northwest of Australia.

8. Modern high-technology weapons place heavy demands on training. They make demands on skilled manpower for repair and maintenance in effective service under Australian conditions, which sometimes differ from those of the country where the equipment was designed.

9. The Defence Force is developing its own doctrine, tactics and procedures suitable for operations by the Australian Services jointly, rather than continuing to rely on British and US concepts. While developing its own concepts, the importance of still being able to operate with our major allies and our regional friends is not being overlooked.
10. It is present policy that ships not undergoing refit are always at least within a day’s notice for sea, and are ready for operational service at this same notice. A task force of two infantry battalions with armoured, artillery and other combat and logistic support is available for operational tasks at relatively short notice, whilst all RAAF front line squadrons are maintained at a state of operational readiness enabling them to deploy to advanced bases at similar notice. Readiness for some specific tasks could involve some limited additional training and administrative arrangements above those normally maintained.

11. An important peacetime role of the Defence Force is to provide assistance to civil authorities and organisations. The tasks generated by this role usually require quick reaction and thus a high state of readiness of various elements of the force. Examples are patrols for the protection of fisheries and other off-shore resources; search and rescue, both on land and sea; medical evacuation; relief from the effects of natural disasters, such as floods, bushfires or cyclones.

12. The Defence Force reacted quickly to such requests after Cyclone Tracy and more recently the Bali earthquake.

### TRAINING AND EXERCISES

13. There will be an increase in those Service activities designed to enhance military skills essential in the development of the force, and for training with the equipment in the inventory.

14. There will be increased Fleet steaming time and greater flying hours for all three Services. In this way training activities will be stepped up, permitting higher standards to be achieved and the techniques of combat, command and control, and logistic support to be further developed and practised.

15. Joint training activities will be aimed at developing our surveillance capabilities; our ability to deploy and maintain readily transportable forces in remote areas; to protect external lines of communication; and to conduct joint operations related to the defence of Australia and its interests.

16. Necessary specialised equipment and associated simulators and apparatus which will be provided in the Five Year Defence Program will enhance the effectiveness of training directed towards these ends. But it is vital that training be carried ‘beyond the classroom’. To this end, the Services will be constantly engaging in exercises of an individual and joint Service nature in many areas of Australia and neighbourhood waters.

17. Of particular value are the regular exercises conducted with allied and neighbouring countries. Such exercises serve not only to maintain operational skills, but also to evaluate techniques and compare performance.

18. The Kangaroo series of exercises in and off Queensland include participation by Australian, United States and New Zealand forces. The RIMPAC series, off Hawaii, sees Australian naval and air elements exercising with those from the United States, Canada and New Zealand. Examples of smaller, but significant, exercises are TASMANEX with naval and air elements of Australia, the United States, Britain and New Zealand, and the Integrated Air Defence System exercises in Malaysia and Singapore involving the Royal Malaysian Air Force, the Republic of Singapore Air Force, the RAAF, the RAN and the RNZAF.

19. There are a number of international Army exchanges up to Company Group size (150 personnel) which serve to broaden knowledge and experience and to bring personnel into contact with the latest developments in equipment and tactical doctrine. These include exchanges between Australia and Britain, the United States, Canada, New Zealand and the Gurkha element of the British Army from Hong Kong.

20. Exercises in the more immediate neighbourhood are conducted with New Zealand and Indonesia, e.g. AUCKEX/LONGEX with RAN and RAAF participation, and TNI-AL/RAN exercises with the Indonesian Navy.

### DEFENCE CO-OPERATION PROGRAMS

21. There has been reference in Chapters 2 and 3 to our important defence co-operation programs with regional defence associates.

22. Over the years the programs have moved away from the provision of miscellaneous equipments and military supplies. The emphasis now is on combined projects which develop or increase a particular capability or element in the defence infrastructure of the country concerned, often with valuable ‘spin-off’ into the civil area. To these projects Australia contributes technical advice and assistance, training in Australia and the more complex equipment. Notable examples include the maritime patrol project in Indonesia, the Armed Forces manufacturing workshop in Malaysia, and the survey and mapping projects in Indonesia and Papua New Guinea.

23. Australia has substantial programs of defence co-operation with Papua New Guinea, Indonesia, Malaysia and Singapore. Training assistance is also provided for members of the armed forces of a number of other countries, including Thailand, the Philippines and increasingly Fiji, where both training and specialist advisory assistance is given.

### UNITED NATIONS CONTRIBUTIONS

24. Defence Force assistance is provided to United Nations peace-keeping operations. Army and Air Force provide limited support to the UN Military Observers Group, India and Pakistan, to the UN Truce Supervision Organisation in the Golan Heights and to the UN Emergency Force in the Sinai area.

### NATURAL DISASTERS ORGANISATION

25. The Natural Disasters Organisation and the State and Territory Emergency Service Organisations comprising more than 30 000 active members constitute the core civil defence structure for Australia. The main preoccupation in peacetime is in mitigating the effects of natural disasters, but the primary role is to ensure that civil defence requirements in the organisation, especially those related to training and equipment, have the dual capability for meeting both the civil defence and natural disasters requirements.

26. The Natural Disasters Organisation will continue to develop counter-disaster plans in conjunction with State and Territory authorities, and to operate the National Emergency Operations Centre which co-ordinates Australian Government physical assistance to the States and Territories in the event of a disaster. It will continue to maintain a number of supporting programs from Commonwealth funds including...
public education and information; training at the National Emergency Services College; emergency equipment; emergency broadcasting facilities; a fallout shelter survey service; reimbursement of salaries for State professional organisers at regional level; and subsidies on a dollar for dollar basis for accommodation for State Emergency Service units and for firebreaks. A Disaster Earmark Store is being established to expedite the supply of items to meet initial disaster relief requirements.

CHAPTER 7

DEFENCE FACILITIES

THE GENERAL PERSPECTIVE

1. The perspective in which the Government intends to develop and acquire defence facilities—buildings, airfields, docks and fixed installations of all kinds—reflects present emphasis on the defence of Australia within the broader context of our neighbourhood and region.

2. Much work remains to be done before we have a comprehensive infrastructure capable of supporting a self-reliant Australian defence posture. Substantial progress is planned in the next five years in producing facilities for the Defence Force. Where new construction or improvements are planned, due consideration is given to environmental factors.

3. More emphasis is now being given to operational facilities specifically required by maritime forces and mobile land forces. The need to develop airfields and patrol craft bases in the more remote areas of Australia, particularly in the north, ranks high in infrastructure development plans.

4. At the same time, the Government is planning improvements to support facilities through the replacement of obsolescent and dilapidated buildings. Development of the major naval bases and modernisation of existing dockyards is planned as part of this program. Extensive development of the task force bases at Holsworthy, Enoggera and Townsville is envisaged.

5. As stated elsewhere, there is a need to provide for adequate community life for the Serviceman and his family. Their environmental needs are similar to the rest of the Australian community and hence they would prefer to live in locations similar to the rest of the Australian population. This influence tends towards location of defence facilities near to centres of population. Also pushing us in this same direction is the need for many facilities, particularly dockyards, to employ large specialist civilian workforces.

6. Much of Defence property consists of wartime structures intended to be temporary. Such buildings are not of good quality, and often are not suitably located for efficient use of resources. Poor distribution of buildings increases manpower costs. Maintenance expense of these temporary structures is high. It is planned to close down inappropriate facilities and progressively provide replacements.

7. The facilities the Government plans to create or have under construction by 1981 involve expenditure of about $600m (in January 1976 prices). Additionally, present plans suggest $170m (in January 1976 prices) will be needed to be spent on the construction, acquisition or improvement of housing for servicemen.

8. The Government believes that the facilities which are discussed in the following paragraphs will permit current peacetime operations to be efficiently performed and will provide an infrastructure enabling timely expansion if the need arises.

9. The amount planned to be expended and committed over the next five years is allocated by function in the following proportions:
and that there are insufficient runways in areas of strategic interest in the north and north-west of Australia. Thus, allowance has been made in the Program for the development and extension of RAAF airfields to permit greater use by tactical fighter and maritime aircraft.

17. In addition, as already mentioned, works at RAAF Base Edinburgh, SA, will permit the collocation of the two maritime reconnaissance squadrons, with consequent enhanced technical support.

DARWIN

18. Darwin will remain a place of substantial significance for defence activity in our northern maritime area. Development of defence facilities in the Darwin area will be necessary.

19. Following Cyclone Tracy, action has been taken to restore damaged working facilities, communications and accommodation within the constraints imposed by limitations on resources. It is planned during the next five years to restore substantially the defence facilities in Darwin to pre-cyclone levels, and to commence development of an enhanced capability.

SUPPORT FACILITIES

20. At Williamstown Dockyard, Victoria, work is underway to produce a hull-building facility for modern warships. A start is planned during the next five years to provide complementary outfitting and refitting facilities. Refitting of RAN ships and submarines is also undertaken at Garden Island and Cockatoo Island Dockyards in Sydney.

21. Much of the planned modern submarine refitting facility is already in existence at Cockatoo Island Dockyard. This facility will be completed in the next few years. In addition, it is planned to replace some of that yard’s cranes and wharves.

22. The development of an integrated Naval Supply Centre at Zetland, NSW, has commenced and the establishment of an Army Support Complex at Randwick is planned; it will permit further vacation of land occupied by Army at South Head. Two modern maintenance hangars are under construction at Amberley; Qld, and a new RAAF stores building is nearing completion at Regents Park, NSW.

23. Demolition of unsightly Defence offices in Albert Park in Melbourne is proceeding, and will be completed when the various logistic and support units are finally housed in the St Kilda Road Defence complex.

24. New laboratories are planned for the Defence Science and Technology organisation including replacement facilities at the Materials Research Laboratory, Maribyrnong, Victoria, and a new materials laboratory at Fishermen’s Bend, Victoria.

EDUCATIONAL AND TRAINING FACILITIES

25. More institutions will be needed. As mentioned in an earlier Chapter an Australian Defence Force Academy is planned, and consideration is being given to a co-located Australian Services Staff College. The rebuilding of one of the largest and most successful apprentice training institutions in Australia—the Army Apprentices School—is planned.
26. Urban pressures are increasingly encroaching on Defence training areas, and whilst the Government recognises these pressures, they must be weighed against the essentiality of maintaining suitable training areas for the Services—whether these be Army manoeuvre and firing areas, airfields or air and naval bombardment ranges. Consideration is being given to the use of the prohibited area at Woomera as a defence training area.

27. In making known Government plans to interested parties, Environmental Impact Statements have been published in respect of a proposal to increase the training area at Puckapunyal, Victoria, and to develop a joint training area at Yampi in north-west Australia.

**ACCOMMODATION FOR SERVICEMEN**

28. Although there is sufficient single accommodation for members of the Defence Force in most locations, the Government recognises that much of the accommodation requires replacement or extensive rehabilitation. Action has therefore been initiated to improve working and living accommodation.

29. There is a shortage of adequate married quarters in most areas. The Government plans to obtain a further 3200 houses for married Servicemen by the early 1980s towards meeting this shortage; and it also plans to continue to upgrade many existing houses that are below current standards. Financial allowance has been made in the Program for all these purposes.

**RESERVE FORCE FACILITIES**

30. At present there are numerous Reserve training depots located throughout the country. In the main, these consist of working accommodation, stores and indoor training facilities. Some buildings are purpose-designed and are of good quality, but many are sub-standard. In the longer term, the Government plans that some Reserve facilities will be relocated or rebuilt.

**IMPORTANCE OF THE CIVIL INFRASTRUCTURE**

31. Civilian facilities in the south-eastern part of Australia are, with some exceptions, capable of satisfying defence requirements in foreseeable strategic circumstances. Transport systems are less developed particularly in the north, north-west and centre of the continent. There is no all-weather overland route to the north of the continent. Most sizable communities have airstrips capable of accepting RAAF transport aircraft. Most coastal communities can provide fuel and provisions to naval ships, but ports are limited in number.

32. In present and prospective strategic circumstances, increased attention will be paid to influencing developments in civil infrastructure that may be relevant. This comprehends roads, railways, ports, airfields, communications, water acquisition and storage, and power sources. A more organised system is needed for bringing defence interests to the notice of the relevant authorities, with the objective of bringing the location of facilities of this kind more clearly into line with the strategic requirements for the defence of Australia.

33. New construction projects already approved by the Government and for which provision has been made in the 1976-77 Defence Budget include:

- Explosives Wharf at the West Australian Naval Support Facility, Cockburn Sound;
- Additional fuel storage at Amberley, Qld;
- Weapons handling facility at Learmonth, WA;
- Wardroom Mess HMAS Albatross, Nowra, NSW;
- Airmen’s living accommodation, Edinburgh RAAF Base, SA;
- Army working accommodation, Enoggera, Qld;
- Airmen’s living accommodation, RAAF Base, Point Cook, Vic.;
- Naval Supply Centre, Zetland, NSW;
- Refurbishing Wharves, Cockatoo Island, NSW.

34. Other major projects under development and for which provision has been made in this Budget include:

- Additional fuel storage at Nowra, NSW;
- Extensions to existing wharf at Garden Island, NSW;
- Army stores facility at Penfield, SA.

35. These, with other smaller facilities, will involve an expenditure of some $89m.
1. The emphasis given in earlier Chapters to the development of a more independent capability requires corresponding improvements in our ability to assess Australia's equipment and technical needs, to undertake some independent research and development, and to enlarge the kind and scale of our industrial and logistic support.

SCIENCE AND ADVANCED TECHNOLOGY

Introduction
2. Few would contest that Australia's defence should exploit the capabilities of advanced military equipment rather than rely on masses of men. This choice fits the scale and nature of the continent, and the orientation of our economy.

3. Advanced equipment incorporates high technology, and is the product of scientists and engineers developing and applying new knowledge and innovative ideas.

4. Being small, but having enduring close relationships with large and advanced countries, Australia is able to avoid the crippling cost of developing most of its own military equipment. However, we must be in a position to select and employ equipment with skill, and we need to sustain its efficiency once in service with minimum dependence on overseas sources. Decisions on what should be developed independently of overseas sources are difficult to make, but where there are special environmental considerations there is a case for local development.

5. We have a substantial interest in securing early knowledge of new defence technology as it emerges in leading countries. We need also to absorb the scientific basis for the practical technologies in sufficient depth and breadth to support Australia's defence decision-making, the military forces and defence industry. Personal access is maintained, and is essential, to the world defence science community.

6. For these reasons we devote a component (currently about 3½ per cent) of defence expenditure to defence scientific establishments. The scientists and engineers in these establishments maintain a technology base, through processes of information-gathering, co-operative research with their equivalents in overseas countries, and by local research on topics of special importance to Australian defence. At the same time they apply their skills to the solution of real problems constantly arising in peacetime, and they lead the development of some items of defence equipment.

Science in the Australian Defence Region
7. As stated elsewhere, research is directed at understanding our marine and atmospheric environment and at methods of monitoring movements of ships (including submarines) and aircraft.

8. A major research area (Project Jindalee) is the investigation of the possibility of long-range over-the-horizon detection of aircraft by radar beam reflected from the ionosphere. In parallel with this work, the military effectiveness of continental air defence systems using this type of radar is being analysed by scientists working closely with the Services.

9. The effectiveness of sonar equipment in the detection of ships and submarines depends upon the propagation of sound in the complex ocean medium. This propagation varies from place to place, so that it is necessary for Defence scientists to carry out oceanographic research in waters near Australia and to participate in Navy trials.

New Topics of Special Interest to Australia
10. The calculating capacity and speed of modern computers can be harnessed with advanced mathematical techniques to distinguish very weak electronic signals from strong electronic 'noise'. These new methods are being studied in Australia and applied to obtain greatly enhanced performance from many types of military equipment—raddars, acoustic sensor systems, infra-red systems are examples.

11. Advances in the guidance of weapons offer prospects of precise direction from far off at modest cost. Using this ability to attack crucial targets selectively, it is possible to increase military power but decrease unnecessary destruction.

12. Of particular interest to Australian scientists is the breadth of evolving technologies in propulsion, in new forms of microelectronics, in materials, in warheads, in guidance and in sensors to seek out and identify targets in adverse conditions. These new technologies may transform the nature of warfare and it is important that Australian scientists can both absorb them and exercise careful selection of areas within our resources.

13. We are looking into the capabilities that sophisticated and highly accurate missiles or 'smart weapons', including lasers, will confer.

Science and Major Defence Equipment
14. Defence scientists are closely involved when major defence equipment—for example, the Ikara anti-submarine weapon—is developed in Australia. Among present examples is Mulloka, an active sonar system; a prototype has been fitted to HMAS Yarra for operational trials and assessment of detection performance.

15. The development of the Barra sonobuoy, following an extensive Australian research program, continues in industry in conjunction with the development of the airborne processing equipment in Britain. Together, these should produce an advanced submarine detection system in 1978. It is expected to have a better detection range than other systems which might become available before that time.

Science in Support of Service Operations
16. A sizable defence science effort is directed towards maintenance in service of existing equipments, and provision of scientific support to industry—particularly the munitions factories—engaged in the production of defence matériel. The resolution of local manufacturing problems on fuses for the 81mm mortar bombs, the local filling of warheads for the Matra missile and manufacture of ammunition for the Mirage guns are typical examples of such support. This is vital work which must continue.
17. The Australian Services tend to keep expensive major equipment longer than do the countries which build it. Defence science support is often required to assess the practicability of extending the operational life of equipment, and sometimes implement a program to achieve it. For example, aeronautical researchers have introduced into the RAAF advanced inspection techniques and reliability analysis to achieve maximum utilisation of the Macchi jet trainer.

18. Methods have been found to arrest the spread of cracks in aircraft structures. Materiels research and investigation by scientists and RAAF Servicemen indicate that fuel problems associated with the F111C could be overcome by the use of additives to the fuel to raise its lubricating qualities. We will keep abreast of expanding technologies in the materiels and aeronautical sciences to maintain the operational readiness of Defence Force equipment.

19. New weapon systems coming into service—such as the Rapier surface-to-air weapon and the Leopard tank—require intensive efforts by scientists and engineers assisting the Force to establish a satisfactory capability for in-theatre and infrastructure support. They also call for extensive trials which must be analysed and assessed. Similar analysis and assessment is required for trials of ships after refit, for weapon practices, for sonar and radar trials. Future equipment with more advanced technology will require even more support of this kind.

Analytical Studies

20. Defence scientists, working closely with Servicemen and other analysts, carry out military analytical studies in the development of Defence Force capabilities. Some 4 per cent of the defence science resources are used to carry out broad studies of overall defence interest in the fields of force structure, strategy and major equipment selection.

21. Two of the more significant studies are the evaluation of methods of broad area surveillance relevant to the defence of Australia, and a study of naval air capability particularly in the context of maritime protection.

Science and Defence

22. At any time there are several hundred scientific tasks in progress; ranging very widely in scale, application and scientific discipline. Within the physical limits of resources and the intellectual limits of foresight, defence science is directed so as to balance between meeting the ever-present day to day needs of industry and the Services, and absorbing the high technology we are likely to need in the future.

DEFENCE INDUSTRY

23. Few countries are technologically equipped for, or are able to afford, the option of meeting all defence equipment and materiel requirements from their own industry. Even during World War II with total mobilisation of national resources, Australia was not able to approach a position where supply for its forces came solely from within.

24. While in the period since World War II our industrial base has been growing impressively both in size and technology, the technical complexity and the requirements for sophisticated techniques of modern weapon systems have increased at an even greater rate. Current strategic circumstances would not support diversion of sufficient resources from other national priorities to overcome this technological gap, even if it were feasible and the higher cost of the small number of equipment items required could be justified.

25. Consequently, Australia will continue to rely on overseas sources for the design and construction of most of the larger and more complex weapons systems. On the other hand, much is being done using local industrial resources to reduce our dependence on overseas sources for the continued maintenance of this equipment.

Industry Policy Principles

26. The central objective of Defence industrial policy is thus to ensure that the Defence Force can be supported and maintained in Australia, utilising for the provision of equipment and materiel, a combination of local industry, selective stockholding and reliable overseas sources of supply. A further objective is the progressive development of a range of basic technologies and capacities which would facilitate an intensification and diversification of present activities to match force expansion, should the need arise.

27. In keeping with the circumstances outlined earlier in this paper, priority for expenditure of available funds and selective placement of orders in Australian industry will continue to be directed towards emphasising those activities which provide a capability to support the force in being in the execution of its current and likely tasks, while contributing to the longer term objectives.

Industry Capabilities

28. Industry activities thus generated include the establishment and maintenance of the capability to repair, maintain, modify and adapt to the Australian environment a wide range of equipment and weapons systems of the forces, and to manufacture high volume consumable and minor equipment items such as spare parts, ammunition, clothing, and personal and field communications equipment.

29. Also included are the manufacture of many general equipment items, such as military vehicles and engineering plant, the sustaining of the capability to construct and modernise selected naval vessels, and the sustaining of an aircraft industry able to provide support and selective manufacturing capability.

30. Implicit in these activities is a basic design and development capability which will permit selective local design and development of equipment, modifications and adaptations to overseas designs, as well as production.

31. The establishment and maintenance of large scale production facilities appropriate only to major expansions of present requirements take a lower priority in expenditure of available funds because of the absence of an identified or predicted requirement, their high cost, and the lack of continuing peacetime workload to exercise and maintain skills once capability is established. 'Peaking' in defence orders on Australian industry has occurred before and creates problems for management and work force. It creates pressures for orders out of phase with priority requirements, or in excess of them.

Stocking Policies

32. Policies on the levels of stockholdings of materiel which should be maintained must be viewed in the context of the likely nature, level and duration of Service activity to be supported, the ability of Australian industry to provide the items concerned or to provide substitutes for overseas supply should this be denied to us as well as the cost of establishing and maintaining the stocks. Estimating the scale and duration of war in which Australia may be involved—the determinants of demand on stock and on production—is one of the most speculative aspects of defence planning. Stockholding policies are constantly under review and at the time of introduction of new equipment particular attention is paid to how best to provide it. The program
allows for a modest buildup of operating stocks to support the increases planned in activities of the Services already described.

**The Industry Support**

33. Specialised industrial support for the Defence Force within Australia is provided from Government factories and dockyards, private industry concentrating on defence work, and Service facilities. At the same time, production facilities in private industry, established and maintained for commercial reasons, provide the bulk of defence requirements of a less complex nature and can be expected to continue to do so.

34. Defence expenditure on industry facilities for production of equipment and materiel, and for support of locally manufactured and imported items, is concentrated on specific facilities and technologies not required or not economically viable for commercial reasons. The majority of this expenditure is in the aircraft, munitions, naval ship modernisation, re-fit and construction, and electronics industries.

**Industry Studies**

35. Structural changes are taking place within industry as a result of tariff and economic changes. These changes, which are being closely monitored, could result in the disappearance of skills important to defence which were previously maintained by commercial activity.

36. Two major studies of defence industry are at present in progress. These are being undertaken by the Defence (Industrial) Committee, chaired by Sir Ian McLennan and recently augmented by the appointment of six additional leading industrialists, and Sub-Committee C of the Joint Parliamentary Committee on Foreign Affairs and Defence covering Industrial Support for Defence Needs and Allied Matters, chaired by Mr D. J. Hamer, MP. The results of these studies should provide a basis for further adjustment to defence industry policy to cope with the structural changes described above.

**Defence Expenditure in Industry**

37. While Defence is a major spender in Australian industry, its contribution to the total manufacturing industry product is a relatively small proportion. It is also relevant that over the past five years some 60-70 per cent of Defence expenditure on the aggregate of votes covering new and replacement equipment, purchase of stores and repairs and overhaul of equipment, has been placed in Australian industry. This amounted to $252m in 1975-76. Additional expenditure in industry result from R&D projects such as Barra and Mulloka, and the direct expenditure on Defence facilities and maintenance of production capacity in Government factories and aircraft industry firms. The 1976-81 Program envisages considerable real growth in this local expenditure. While it can be used to develop and maintain capabilities of special significance, this expenditure is not adequate for the shaping or support of the totality of Australian manufacturing industry which may be used by Defence.

38. Where there are specialise segments of private industry which are of major importance to the support or production of Service equipment, or the maintenance of essential capabilities to support Service activities, the Department of Defence continues to be prepared to consider selective assistance to keep the capacity alive in industry. The means available for the fostering of defence industrial capability are generally:

a. through selectively directing Defence procurement in whole or in part into Australian industry and accepting any higher costs and delays that may be legitimately incurred;

b. by funding separately, feasibility and project definition studies and the establishment costs of local production and/or support facilities;

c. by facilitating the obtaining of offset work, on a competitive basis, in similar technologies through the insistence on such provisions in procurement arrangements; and

d. through local development of equipment and systems either in industry or in Defence establishments with subsequent production in industry or government factories.

39. Where equipment and materiel have to be purchased overseas, efforts will continue to obtain Australian industry participation whether in the form of collaborative development and for part manufacture of the equipment, manufacture of less complex items, production of sub-systems, provision of high usage spares, or offset work in similar technologies. This policy will continue to be directed towards those activities supporting the longer term defence industry policy objectives.

**Industry Development and Rationalisation**

40. The Government has announced approval of expenditure on rationalisation proposals for the aircraft industry to reduce unused capacity and cost of operations. These plans will be implemented progressively over the next three years to bring the industry into a better and more efficient structure to provide local involvement in new aircraft projects such as the Tactical Fighter Force, jet trainer replacement and tactical transport aircraft which have been mentioned earlier.

41. Considerable upgrading of industry capabilities should result. Attention is being given to providing opportunities for development of long-term involvement in the production of the aircraft chosen, e.g. by collaborative production with overseas firms.

42. Munitions factories rationalisation has been under study for some time with a view to consolidating essential capabilities at a smaller number of sites with a smaller and better utilised workforce. Progressive implementation of these proposals is expected later in the five year Program. Some upgrading will be needed to produce the more modern munitions and ammunition items planned for introduction in 1976-1981.

43. The naval dockyards provide an essential shipbuilding and ship repair capability. Their capacity will be enhanced by the modernisation proposals. Planned workload through much of the program period will be provided by projects already approved. Increased manpower will be provided in the production, planning and quality control areas at Williamstown and Garden Island naval dockyards to undertake and prepare for the modernisation of the destroyer escorts and DDGs, new construction work and normal refits and repairs.

44. Defence requirements of the commercial shipbuilding industry are generally for non-combatant or smaller combatant vessels. Tenders are being invited for construction of an Amphibious Heavy Lift Ship. The current project definition contracts on patrol craft will lead to proposals for construction of all but the lead craft in Australian commercial yards. Potential opportunities for these yards exist later in the Program in relation to mine counter-measures vessels.

45. Defence requirements of the electronics industry are spread over a number of firms. Ways are being sought to assist the industry to maintain specific capabilities of importance by orders and other means. The industry is currently involved in the
engineering development of the Barra system and the Mulloka sonar already men-
tioned, and will undertake the production phase on successful completion of develop-
ment. The capability of industry and Service establishments to modify and develop
software and systems integration techniques to apply local tactical doctrine, particu-
larly in new ships and aircraft, will be developed through projects such as the integra-
tion of the Barra system to the Long Range Maritime Patrol aircraft and the DDG
modernisation.

46. Other sectors of industry providing support to Defence, such as the automo-
tive and general engineering industries, generally have adequate capacity for Defence
needs. The Government has already announced the progressive purchase, commenc-
ing this year, of 2100 light trucks with high local content. High local content is also
planned in the new medium truck proposed for later in the Program.

CHAPTER 9
DEFENCE MANAGEMENT

The management of the Defence Force and the Department of Defence is concerned
with making decisions about the protection of the nation and the attainment of an
efficient and well equipped Defence Force. In so doing, defence policy and programs
must conform to general Government policy, be integrated with foreign and fiscal
policy, and reflect the weight of competing demands on resources at the disposal of
Government.

2. In the derivation of the new organisational arrangements for the Department
of Defence and the administrative concepts and framework which have been
adopted, considerable attention has been paid to the management processes required
to facilitate decision-making and the attainment of defence goals. The task is one of
considerable magnitude involving in 1976-77 some $2200m, 69 000 Servicemen and
over 30 000 civilians.

ORGANISATION FOR DEFENCE MANAGEMENT
AND OPERATIONS

3. The Department of Defence is organised on a functional basis to carry out its
responsibilities relating to defence, including civil defence, and to provide support for
the three Services. Legislation relating to the reorganisation of the higher manage-
ment of the Department and the Defence Force was passed by the Commonwealth

4. Under the Defence Act, the Minister for Defence has the general control and
administration of the Defence Force. The Secretary, Department of Defence is the
principal civilian adviser to the Minister and is responsible to him for advice on pol-
ICY, resources and organisation. He exercises the powers of a Permanent Head under
the Public Service Act, the Audit Act and Treasury Regulations. The Chief of Defence
Force Staff (CDFS) is the principal military adviser to the Minister. Under the Minis-
ter he has command of the Defence Force and exercises overall direction of oper-
ations. The Secretary and the CDFS jointly are responsible for the administration of
the Defence Force, except for matters falling within command responsibilities.

5. Each Chief of Staff commands his arm of the Defence Force under the CDFS.
His responsibilities include the conduct of single Service operations, the training, wel-
fare, morale and discipline of his Service, all within allocated resources and in accord-
ance with approved policies.

6. A Council of Defence was constituted on 9 February 1976 to consider and dis-
cuss matters referred to the Council by the Minister for Defence, relating to the con-
trol and administration of the Defence Force and the respective arms of the Defence
Force. The Council, which meets monthly, comprises the Minister for Defence
(Chairman), the Minister Assisting the Minister for Defence, the Secretary to the De-
partment of Defence, the Chief of Defence Force Staff and the three Service Chiefs of
Staff.
EQUIPMENT ACQUISITION

7. Great stress is laid on the management of equipment and materiel acquisitions. The Department must obtain the best possible overall result in terms of operational performance, cost, delivery time scale, product support and Australian defence industry involvement in its weapon system acquisition. Careful management and co-ordination of the disparate operational, departmental and industrial factors involved are required.

8. Each large equipment program requires an acquisition strategy to guide its development through the acquisition process. The acquisition strategies are formulated in one division of the Department, in close consultation with the Service concerned and other relevant functional divisions.

9. Each Service has established for each of the more significant equipment programs, project managers or project management offices, whose function is to coordinate project activities both within the particular Services and beyond the Service boundary. Generally, these are created for the duration of the project.

10. The definition of the source of procurement is the responsibility of a Standing Committee, and follows the completion of Service evaluations. The Committee, comprising Service and civilian experts in force development, operational and technical requirements, logistics support, procurement, finance, contracts and contract law, industry and materiel matters, is drawn both from within the Department of Defence and from other departments. Its purpose is to ensure the comprehensiveness and objectivity of the Department's contractual activities with industry.

11. The Defence (Industrial) Committee, mentioned previously in this paper, also advises the Department on management methods and techniques used in industry through involvement in particular studies of defence production programs.

SERVICES LOGISTIC SUPPORT

12. The variety of equipment in use with the Services requires considerable back-up supply support. The inventory of the three Services and associated agencies contains nearly 1.25 million items. Control of the level of stockholding involved, the replenishment of stocks, and the management of the overall investment are tasks of considerable magnitude which are facilitated by the extensive use of computers. The new Departmental organisation recognises the importance of these activities and provides improved arrangements for central supply policy formulation and for co-ordination of supply activities for the three Services through the establishment of a Chief of Supply. As a particular example, the various stockholding policies among the Services are under review.

13. The procurement of support materiel continues to be the responsibility of each of the three Services supply authorities. Whenever possible or reasonable, use is made of the logistics systems operated by the Armed Services of other governments for spares support and training. Where local procurement is involved, contracts are arranged and orders are placed through such avenues as the Purchasing Office of the Department of Administrative Services which conducts its activities under established government purchasing procedures.

DATA STORAGE AND MANIPULATION

14. The management processes and administrative concepts adopted by the Department and the Services cannot be carried on, or developed, in the ways required without major computing support. This offers the only feasible basis for handling the data storage and manipulation tasks that are involved, and for bringing economy and uniformity of practice to their treatment.

15. Computer methods are used in the control of and in provisioning the Services' stores inventory. Complementary processing arrangements have been developed and established with other countries, which permit the rapid introduction into Australian defence catalogues and inventories, and their subsequent replenishment, of the large ranges of new items that arise from major equipment purchases from overseas.


17. New computing systems are replacing existing equipment installed in the mid-1960s. Mini-computers linked to two large central computers are being installed in Service bases and other Defence establishments. They will provide direct and immediate access to the large volume of existing statistical information and enable it to be used constructively in the forward planning and management of Defence activities.
CHAPTER 10

THE OUTLAY ON DEFENCE 1976-81

1. Previous Chapters have described the direction in which the Government plans to develop Australian defence capabilities. The levels of Service activity, manpower and planned capital equipment and facilities acquisitions (and the expenditure on previous orders still being paid for) are the essence of the Program. The task of the financial programmer is to reconcile timing and volume of expenditure with the defence requirement on the one hand, and the financial constraints on the other. The defence requirement embraces a complex matrix of policy objectives.

2. Analysis by its Service and civilian advisers led the Government to announce on 25 May 1976 that a program of some $12 000m (in January 1976 prices) over a five year period was required to strengthen defence and correct existing shortcomings and imbalances.

3. The Program as already described will be achievable within an expenditure of about $12 000m in 1976-81 with the addition of commitments of some $2500m falling due for payment over a number of subsequent years.

4. Broad indications of provisional allocations in the program, on an annual basis and as between the major categories, are shown in the table below:

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<thead>
<tr>
<th>TABLE 7—DEFENCE PROGRAM</th>
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<tr>
<td>Broad Planning Allocations</td>
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<tr>
<td>$m</td>
</tr>
<tr>
<td><strong>Ships, Aircraft, Armour and Other Equipment and Plant</strong></td>
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<tr>
<td><strong>Works, Housing and Acquisition of Sites and Buildings</strong></td>
</tr>
<tr>
<td><strong>Pay and Allowances of Service and civilian men and women and payments for Service retirement and death benefits</strong></td>
</tr>
<tr>
<td><strong>Defence co-operation and assistance to other countries</strong></td>
</tr>
<tr>
<td><strong>Service activities, operating and support costs (including administration)</strong></td>
</tr>
<tr>
<td><strong>Maintenance of Government Factories and Defence Industry</strong></td>
</tr>
<tr>
<td><strong>Total expenditure</strong></td>
</tr>
<tr>
<td><strong>Less: receipts from rent, charges made for rations and quarters, disposal sales and recoveries from other administrations</strong></td>
</tr>
<tr>
<td><strong>Total outlay on defence function</strong></td>
</tr>
</tbody>
</table>

5. These broad provisional allocations are subject to review and adjustment according to actual timing of project developments, Budget considerations and the circumstances prevailing at the time that major decisions need to be taken. Moreover, in nine months' time the financial basis for a program for 1977-82 will be decided by Government. By this annual process—the rolling program—the dimensions of the Program will be adjusted up or down according to the prospective international circumstances as then assessed and the progress achieved to date in bringing defence up to the levels required. The table reflects what has been described in previous Chapters. The aggregated results depict, in quantified financial form, certain policy objectives which the Government will pursue.

TRENDS IN THE EQUIPMENT PROGRAM

6. The Program reflects the priority accorded to equipment in present circumstances. It provides for the continued acquisition of a wide range of basic items. It plans the introduction, in modest numbers, of a variety of advanced equipments which will enhance capability as discussed in Chapter 4 and enable the Services to gain experience in their operation and support.

7. In the program period it is planned that the proportion of total expenditure on new equipment will be progressively raised to over 22 per cent in 1980-81. This will mean new commitments of some $3500m, and an expenditure on equipment approaching $2500m over the program period.

8. Expenditure in the early years of the Program will not be as large as that occurring in the later years. This is brought about by the long lead times associated with the procurement of major items of equipment on which the heavier expenditures occur some two to three years and later, after placement of the order.

DEFENCE FACILITIES

9. Financial provision has been made for a sustained effort to improve our defence facilities in the short and longer term, as described in Chapter 7.

10. The proportion of defence expenditure on facilities is planned to increase progressively from the 6.2 per cent achieved in 1975-76 to over 7 per cent in 1980-81. In absolute terms this is a substantial increment.

MANPOWER EXPENDITURE

11. The financial provisions allow for the growth of the Regular Army to 34 000 and the increase in the Army Reserve of about 5000. Navy and Air Force manpower will be adjusted, mainly as determined by the increasing equipment levels and the growth in Service activities. At the same time, restraints and effective management will continue to be applied to overall manpower growth to ensure that resources are freed for capital investment and higher levels of Service activities. In the course of this restructuring the expenditure trend on manpower will be reversed; the object is that by the end of the Program only some 45 per cent of Defence expenditure will be directed to this area, compared with some 57.6 per cent in 1975-76.

SUMMARY OF RESOURCE ALLOCATIONS

12. In summary, of some $12 000m (in January 1976 prices), which provides an annual average increase in real terms of more than 5 per cent: