

AUSTRALIA'S DEFENCE RESOURCES

**a compendium
of data**

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INTRODUCTION

The aim of this compendium is to provide data on Australia's defence resources which will supplement information already available in official Government documents.

The most relevant of these are:

- a The Australian Government White Paper 'Australian Defence' November 1976.
- b The Minister for Defence's Defence Report 1984-85.
- c Report of the Reorganisation of the Defence Group of Departments presented to the Minister for Defence in November 1973 by Sir Arthur Tange, CBE, Secretary, Department of Defence (The Tange Report).
- d Report of the Defence Review Committee on the Higher Defence Machinery presented to the Prime Minister and the Minister for Defence in October 1982 by the Chairman of the Committee, Mr A.W. Utz (The Utz Report).
- e The following reports of the Joint Committee on Foreign Affairs and Defence:
 - i 'Industrial Support for Defence Needs and Allied Matters', October 1977 (The Hamer Report).
 - ii 'Australian Defence Procurement', November 1979 (The Katter Report).
 - iii 'The Australian Defence Force: Its structure and capabilities', October 1984 (The Cross Report).
 - iv 'Threats to Australia's Security. Their nature and probability', 1981.
- f Report on the 'Review of Australia's Future Defence Capabilities' by Paul Dibb (forthcoming 1986).
- g Year Book, Australia 1985.

The data presented herein has been selected from material which is readily available, although frequently unpublicised, on Australia's defence resources. The compendium only repeats information from other documents when this is considered necessary to give a balanced but brief outline on a particular topic in the interests of continuity and clarity.

We wish to express our thanks to the officers of Defence Central and each of the Service Offices who so willingly checked and authenticated the relevant drafts and to the Chief Superintendent (Australian Federal Police) in charge of the Coastal Protection Unit.

PART ONE
NATIONAL BASIS

A. GEOGRAPHIC AND DEMOGRAPHIC ASPECTS

Discussions of defence capabilities frequently quote geographic and demographic statistics. A resume of some of the more relevant indices in these areas is set out below.

(1) Australia

The total area of Australia is 7,682,300 sq km (2,966,151 sq miles). Australia lies between the longitudes 113°09'E (Steep Point) and 153°39'E (Cape Byron) and the latitudes 10°41'S (Cape York) and 43°39'S (South Cape, Tasmania). The coastline of Australia, including Tasmania, is 36,735 km (22,826 miles) long.

To the north of the continent are the Timor and Arafura Seas and Torres Strait and to the south the Southern Ocean. The extreme points are Steep Point on the west, Cape Byron on the east, Cape York on the north and South-East Cape, or, if Tasmania is excluded, Wilson's Promontory, on the south. The latitudinal distance between Cape York and Wilson's Promontory is about 3,180 km (1,976 miles) and South-East Cape, Tasmania 3,689 km (2,287 miles) respectively. The longitudinal distance between Steep Point and Cape Byron is about 4,000 km (2,485 miles).

Queensland can be broadly divided into four main landscape regions. These are:

- a The Eastern Highlands. The highlands west from the eastern coastal plains are 80 km (50 miles) in the far north to 480 km (300 miles) inland from Rockhampton. The only high mountains in this belt are, in the north, Mt Bartle Frere, 1,622 m, and in the south Mt Barney, 1,362 m. Not all the highlands are mountainous; much plain and plateau country is included. The highlands constitute the major divide between east and west flowing rivers. In most places on the western side, the Eastern Highlands grade imperceptibly into the Western Plains.
- b The Western Plains. Approximately two-thirds of Queensland lie in the Western Plains which is that region drained by the Darling River system in the south, towards Lake Eyre in the southwest, and to the Gulf of Carpentaria in the north. Most rivers in the region have gentle gradients and flow only after heavy rain, and particularly in the Diamantina River and Coopers Creek area, flood waters spread laterally for many kilometers. The region is also known as the Channel Country because of the network of numerous interlacing tributaries/channels. In the far southwest, wind blown sand dunes form the eastern margin of the Simpson Desert.
- c The North-Western Uplands. The country of the North-Western Uplands resembles the rugged parts of the Eastern Highlands. In general the region can be described as those mountains and tablelands centred on Mt Isa.
- d The Islands and Reefs. Numerous islands and reefs fringe the State's coastline. The islands, though small, are inhabited in the far north by indigenous populations and elsewhere by transients and tourists. The major reef system is the Great Barrier Reef which stretches approximately 1,900 km (1,190 miles) from Gladstone to Torres Strait. While the reefs afford protection to most of the

state's coastline, they also constitute a severe hazard to shipping. Queensland has a coastline of approximately 7,400 km (4,590 miles).

Although New South Wales (NSW) is the most populous State of Australia, it comprises only 10 per cent of the total area, being approximately 800,000 sq km (308,800 sq miles). Situated in the centre of the east coast, NSW is almost square in shape being 1,100 km (690 miles) from north to south and 1,200 km (750 miles) from east to west. In addition, Lord Howe Island, a tiny volcanic outcrop 700 km (440 miles) north east of Sydney, is part of NSW and could be significant in a defence emergency.

NSW has a coastline of approximately 1,950 km (1,200 miles) including the ACT and the Jervis Bay area.

Natural features divide NSW into four, north-south zones, i.e.:

- a the coastal districts,
- b the tablelands (including the Great Dividing Range),
- c the western slopes of the Great Dividing Range, and
- d the western plains.

The Coastal Districts. The coastal districts are undulating, well watered and fertile. The coastline is interspersed with numerous river estuaries, many of which make excellent, deep water harbours; and others, a number of relatively shallow lakes. The average width of the coastal sector is 80 km (50 miles) in the north and 30 km (19 miles) in the south although, in the valley of the Hunter River, it increases to 240 km (150 miles).

The Tablelands. The tablelands consist of an almost unbroken succession of plateaux varying in width from 50 to 160 km (100 miles). The average height of the tablelands is approximately 750 m with the New England Range in the north rising to 1,200 m, and Mt Kosciusko in the south rising to 2,228 m. This sector forms the main watershed in the State and the short, fast flowing rivers streaming east to the coast carry two-thirds of the total run-off. The flow of the longer, meandering, inland rivers is progressively diminished by natural transmission losses (evaporation and seepage) and usage for irrigation, stock watering and town water supplies before discharging into the sea in South Australia. The flow of these inland rivers varies greatly; large volumes of water are carried during floods and the rivers hardly flow at all during protracted droughts.

The Western Slopes. To the west of the Great Dividing Range the tablelands slope gradually to the western plains. This region is, in the main, undulating, fertile country with rich plains along the rivers and occasional rugged areas. The area is watered by the upper reaches of the inland rivers and, in addition, there is an adequate and regular rainfall.

The Western Plains. Further to the west the western plains stretch out to cover the remaining two-thirds of the State. Although the surface consists of fertile red and black soil, the rainfall is low and intermittent and the rate of evaporation is high.

Victoria's geographic area is dominated by the Great Dividing Range which extends from a triangular mass in the north east, through the narrower and lower Central Highlands, and terminates at the Grampians in the south west. The Great Dividing Range separates Victoria and its rivers into two distinct regions: that with its rivers flowing in a northerly direction towards the Murray River and that with its rivers that flow towards the sea. Victoria has a coastline of approximately 1,800 km (1,200 miles).

South Australia spans 1,200 km (750 miles) east to west, 1,400 km (870 miles) north to south and occupies 3,700 km (2,300 miles) of Australia's coastline. It is described as the 'driest state in the driest continent' and its rainfall varies from below 250mm in the north to 750-850mm per annum in the south east. Most rainfall occurs in the May-August period whilst its hottest and coldest months are February and July respectively.

The Mount Lofty - Flinders mountain ranges run approximately 550 km (340 miles) from the salt lakes at Lake Frome 450 km (280 miles) north of Adelaide to Cape Jervis 100 km (62 miles) south of Adelaide.

The Murray River enters South Australia at Renmark and flows some 350 km (215 miles) south to Lake Alexandrina and then to its mouth at Goolwa located 80 km (50 miles) south east of Adelaide.

South Australia's coastline takes in St Vincent's Gulf and Spencer Gulf which are bounded by the Fleurieu, Yorke and Eyre Peninsulas. It also includes Kangaroo Island which is situated 11 km (7 miles) from Cape Jervis. The island measures 120 km (75 miles) in length and 40 km (25 miles) in breadth.

Low salt bush predominates in the northern two thirds of the State where rainfall is sparse, whilst larger gums and brush predominate in the southern hills and the south eastern section of the State where the rainfall is highest.

Western Australia (WA), the largest State in the Commonwealth, stretches a distance of about 2,400 km (1,500 miles) in a north-south direction and about 1,600 km (1,000 miles) west to east. Some one-third of the State lies within the tropics, while the remainder extends southward to the temperate zone.

The State divides broadly into two physical regions: a tableland (The Great Plateau) in various stages of dissection occupying the whole of the interior, and a low lying narrow strip (the Coastal Plains) running almost continuously along the coast from near Albany to Broome. A third physical region, the Scarplands, separates the Coastal Plains from the Great Plateau. Although only a narrow belt, it is vital to the major water conservation schemes.

About two-thirds of the State is occupied by the ancient Australian Precambrian Shield which has most of the mineral deposits of economic importance, except coal, oil, natural gas and water. The remainder of the State is occupied by sedimentary basins in which artesian water, coal, oil and natural gas are likely to occur. There are also still younger superficial deposits - laterites, salt-lake deposits, shallow ground water, and soils on which much of the economy of this country depends. Western Australia has a coastline of 12,500 km (7,750 miles).

The State of Tasmania is a group of islands lying to the south of the south-western corner of the mainland. The major island is Tasmania and the significant minor islands are King, Flinders and Bruny. Tasmania's coastline is bounded by a Southern Ocean on the south and west, the Tasman Sea on the east, with 240 km (150 miles) wide Bass Strait separating the island from the mainland to the north.

The area of the whole State, including the minor islands, is 67,800 sq km (26,170 sq miles). At its widest point east to west Tasmania is 315 km (195 miles) in breadth and from north to south is 296 km (184 miles) in length.

The principal physiographic regions of Tasmania are:

- a North West. Comprises the coastal population centres, the north-west plateau and the Tamar Valley. The area is important for forestry and intensive mixed farming.
- b North East. This area includes the coastal platforms and the north-east highlands. Limited farming and mining is undertaken, but the area is largely uninhabited.
- c East Coast. Includes the State capital, Hobart, and is largely an undulating plateau area. This region is used for dairy and specialized farming.
- d South-West. This region consists of high plateaux, lakes and mountain areas and is virtually uninhabited.
- e West Coast/Central Highlands. Consists of coastal platforms, mountain areas and a large number of lakes. Some parts are used for agriculture and mining but the area is largely uninhabited.

Tasmania has a coastline of approximately 3,200 km (2,000 miles).

Northern Territory is 1,346,200 sq km (519,633 sq miles) in area and can be broken into distinct regions characterised by clearly defined differences in terrain, rainfall and vegetation. The dividing line is approximately 500 km (312 miles) from the Northern Coastline (16°S). North of Parallel 16° can be generally described as rugged and tropical whilst the Southern Region is hot, dry and flat with the exception of the rugged mountain ranges near Alice Springs.

The Northern Region is by no means uniform, varying from tidal flats and coastal flood plains to steep escarpments and tabletops. The coastline seldom reaches a height above 30 m and consists of sand beaches and mud flats which are subject to tidal flooding.

Coastal flood plains are a significant feature of all major river systems and are covered by fresh water during the Wet Season and are impassable to wheeled or tracked vehicles. Drainage from the flood plains is slow.

Black soil lowland plains extend inland up to a distance of 160 km (100 miles) and again are impassable to vehicular traffic during the Wet Season. From June onwards, hot south-easterly winds rapidly dry these areas and cross country vehicular movement can be achieved.

Except for the MacDonnell and Harts Ranges, the Southern Region is generally devoid of landmarks due to extensive areas of desert country to the west and south east. Most rivers are dry and flow only during periods of extensive rainfall. Northern Territory has a coastline of approximately 6,200 km (3,850 miles).

(2) Australia's External Territories

Norfolk Island. The latitude of the island is 29°02'S, longitude 167°57'E approximately. The total area is about 3,455 hectares and the island is 1,676 km (1,047 miles) from Sydney and 1,063 km (664 miles) from Auckland. There are approximately 80 km (50 miles) of motor roads on the island and the population is approximately 1,800.

In 1856, the Island was created a distinct and separate settlement under the jurisdiction of the Governor of New South Wales. In 1897 it was made a dependency under the Governor of the Colony, and finally, by the passage of the Norfolk Island Act 1913, became a Territory of Australia.

In May 1978 the Government announced that it should try to develop for Norfolk Island a form of Government involving the Island's own elected representatives under which the necessary revenue could be raised by its

own system of law. The Norfolk Island Act 1979, which was assented to on 30 May, established the framework for this objective. In broad terms the Act equips Norfolk Island with responsible legislative and executive government with an Administrator as the Government representative, to enable it to run its own affairs to the greatest practicable extent. Wide powers are exercised by the Norfolk Islands Legislative Assembly and by an Executive Council, comprising the executive members of the Legislative Assembly who have ministerial-type responsibilities. The Act preserves the Commonwealth's responsibility for Norfolk Island as a Territory under its authority, with the Minister for Territories and Local Government as the responsible Minister, and indicates the Parliament's intention that consideration will be given to an extension of the powers of the Legislative Assembly and the political administrative institutions of Norfolk Island within five years.

Heard Island and McDonald Island. About 4,100 km (2,560 miles) south-west of Fremantle, Heard Island is about 43 km (27 miles) long and 20 km (12 miles) wide, lying in latitude 53°07'S and longitude 73°20'E. Small, rocky and precipitous, the McDonald Islands are 43 km (27 miles) west of Heard Island. Shag Island is about 8 km (5 miles) north of Heard. These islands were transferred from the United Kingdom to Australia as from 26 December 1947. The laws of the Australian Capital Territory were declared to be in force in the Territory of Heard Island and McDonald Islands by the Heard and McDonald Islands Act 1953. In 1972, the responsibility for the administration of this Act was transferred to the Minister for Science (now the Minister for Science and Technology).

Australian Antarctic Territory. Australia has authority over all the islands and territories, other than Adelle Land, which are situated south of 60° latitude and lying between 160°E longitude and 45°E longitude. (The boundaries of Adelle Land were definitely fixed by a French Decree of 1 April 1938 as the islands and territories south of 60°S latitude lying between 136°E longitude and 142°E longitude.) The Australian Antarctic Territory Act 1954 declared that the laws in force in the Australian Capital Territory are, so far as they are applicable and are not inconsistent with any ordinance made under the Act, in force in the Australian Antarctic Territory. In 1968 responsibility for the administration of this Act was transferred from the Minister for External Affairs to the Minister for Supply and in 1972 the responsibility was transferred to the Minister for Science (now the Minister for Science and Technology).

Cocos (Keeling) Islands. These islands are two separate atolls comprising some 27 small coral islands, with the largest island, West Island, being 10 km (6 miles) long. They are situated in the Indian Ocean, 2,768 km (1,667 miles) north-west of Perth, at 12°05'S latitude and 96°53'E longitude. On West Island there is an airport of international standard.

By mutual agreement between the British and Australian Governments and confirmed by complementary legislation, the islands became an Australian territory in 1955. The Australian Government purchased the Clunies-Ross interests in the Territory in 1978, except for the family home and grounds.

Cocos (Keeling) Islands Act 1955 is the basis of the Territory's administrative, legislative and judicial systems. An Administrator, appointed by the Governor-General and responsible to the Minister for Territories and Local Government, is the senior Government representative in the Territory. A representative form of local government was established on 25 July 1979 when the Cocos (Keeling) Islands Council was elected by members of the Home Island community. The Council, which has

responsibility for a wide range of functions in the Home Island village area, advises the Administrator on local affairs, and is also empowered to make representations on ordinances proposed for the Territory.

The population is 584.

Christmas Island. Christmas Island, of about 135 sq km (52 sq miles) is in the Indian Ocean, 2,600 km (1,625 miles) from Perth, at latitude 10° 25'S, longitude 105° 40'E. It has one airstrip, constructed of compacted phosphate.

In October 1958 the island was transferred by the British Government to Australia by the Christmas Island Act 1958. The Territory is administered by an Administrator appointed by the Governor-General. Responsibility for the administration and government of the Territory rests with the Minister for Territories and Local Government and the Administrator administers the Territory in accordance with instructions given to him by the Minister. The laws which were in force on the island at 30 September 1958 were continued as the laws of the Territory after its transfer to Australia. They may be amended or repealed by Commonwealth Statutes.

The economy of the Territory is based almost entirely on the mining and extraction of phosphate.

The population is approximately 3,000.

Coral Sea Islands Territory. Of only a few square kilometres of land area, this territory consists of scattered reefs and islands spread over a sea area of 1,325,995 sq km (399,892 sq. miles), between the Great Barrier Reef and longitude 157° 10'E and between latitude 12° and 24° S.

By ordinance the laws of the Australian Capital Territory apply in the Coral Sea Islands Territory. The Minister for Territories and Local Government is responsible for matters affecting the Territory.

Territory of Ashmore and Cartier Islands. These islands are situated in the Indian Ocean some 320 km (200 miles) from the north-west coast of Australia.

Island Dependencies of the States:

Lord Howe Island is a dependency of New South Wales and is situated about 702 km (439 miles) north-east of Sydney, lying at 31° 33'S latitude and 159° 4'E longitude, and with an area of 1,656 ha (64 sq miles). Macquarie Island, situated approximately 1,600 km (1,000 miles) south-east of Tasmania at latitude 54° 29'S and longitude 158° 58'E, is a dependency of Tasmania.

Sources:

Cameron, R.J., Australian Statistician, Year Book, Australia 1985 (AGPS 1985).

Paxton, John, The Statesman's Year Book, 1985-1986 Macmillan Press, London 1985.

(3) Population

The following tables in Annexes A to D provide details of population estimates and Defence Force strengths:

Annex A Population: States and Territories

Annex B Population: Age Distribution

Annex C Proportions of Area and of Population Density and Masculinity of Population

Annex D Population of External Territories - 30 June 1971 and 1984

ANNEX A TO PART ONE
POPULATION: STATES AND TERRITORIES

Year	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Northern Australian Territory	Australian Capital Territory	Australia
MALES									
1970	2,292,534	1,739,916	914,631	584,357	520,174	196,363	46,561	70,341	6,364,877
1975	2,407,501	1,840,408	1,013,124	618,223	579,870	204,482	51,930	102,282	6,817,820
1981	2,552,053	1,902,946	1,155,118	636,812	644,533	209,080	65,471	110,590	7,276,603
FEMALES									
1970	2,281,201	1,742,115	898,153	585,873	493,878	193,890	36,261	67,221	6,298,592
1975	2,411,612	1,846,337	999,233	621,140	557,514	204,451	43,929	98,888	6,783,104
1981	2,573,630	1,929,154	1,139,428	648,031	628,887	209,876	57,862	111,017	7,297,885
PERSONS									
1970	4,573,735	3,482,031	1,812,784	1,170,230	1,014,052	390,253	82,822	137,562	12,663,469
1975	4,819,113	3,686,745	2,012,357	1,239,363	1,137,384	408,933	95,859	201,170	13,600,924
1981	5,125,683	3,832,100	2,294,546	1,284,843	1,273,420	418,956	123,333	221,607	14,574,488

Note: Figures for 1970 and 1975 are to 31 December, those for 1981 are to 30 June.

**ANNEX B TO PART ONE
POPULATION: AGE DISTRIBUTION**

30 June 1976				30 June 1981				
Age	Males	Females	Persons	%	Males	Females	Persons	%
0-4	611,779	584,813	1,196,592	8.8	569,517	542,428	1,111,945	7.6
5-9	640,129	610,456	1,250,586	9.2	640,141	609,800	1,249,941	8.6
10-14	638,572	604,584	1,243,156	9.2	662,489	632,529	1,259,018	8.9
15-19	620,935	595,633	1,216,568	9.0	643,760	615,269	1,259,029	8.6
20-24	559,077	552,513	1,111,590	8.2	629,361	618,422	1,247,783	8.6
25-29	572,006	562,728	1,134,734	8.4	591,638	592,511	1,184,149	8.1
30-34	480,625	461,602	942,227	7.0	600,669	591,563	1,192,232	8.2
35-39	417,306	399,058	816,364	6.0	497,676	479,557	977,233	6.7
40-44	373,132	353,019	726,152	5.4	421,599	401,102	822,701	5.6
45-49	396,608	371,517	768,126	5.7	371,006	352,133	723,139	5.0
50-54	376,500	367,276	743,776	5.5	387,169	370,375	757,544	5.2
55-59	308,999	314,858	623,857	4.6	363,342	363,143	726,485	5.0
60-64	272,255	293,488	565,743	4.2	287,588	312,144	599,732	4.1
65-69	210,754	238,382	449,137	3.3	243,879	281,006	524,885	3.6
70-74	143,612	181,891	325,503	2.4	174,043	220,259	394,302	2.7
75-79	85,858	136,850	222,708	1.6	104,487	152,461	256,948	1.8
80-84	42,600	86,787	129,387	1.0	51,321	100,770	152,091	1.0
85-89	18,745	42,576	61,321	0.5	20,192	51,535	71,727	0.5
90-94	4,614	12,778	17,392	0.1	6,063	18,146	24,209	0.2
95+	839	2,691	3,530	0.0	1,136	4,101	5,237	0.0
Total	6,774,947	6,773,500	13,548,448		7,267,076	7,309,254	14,576,330	

Note:

The section outlined indicates the number of men and women of military age.
 At 30 June 1976 there were a total of 2,402,146 men of military age compared with a total of 2,740,943 at 30 June 1981.
 At 30 June 1976 there were a total of 2,328,920 women of military age compared with a total of 2,683,155 at 30 June 1981.
 The total number of persons of military age at 30 June 1976 was 4,731,067 compared with 5,424,098 at 30 June 1981.

ANNEX C TO PART ONE
PROPORTION OF AREA AND OF POPULATION DENSITY AND
MASCULINITY OF POPULATION: 30 JUNE 1981

State of Territory	Proportion of total area %	Proportion of population 30 June 1980 %			Density (a)	Masculinity (b)
		Males	Females	Persons		
New South Wales	10.43	35.07	35.27	35.17	6.39	99.16
Victoria	2.96	26.15	26.43	26.29	16.84	98.64
Queensland	22.48	15.87	15.61	15.74	1.33	101.38
South Australia	12.81	8.75	8.88	8.82	1.31	98.27
Western Australia	32.87	8.86	8.62	8.74	0.50	102.49
Tasmania	0.88	2.87	2.88	2.87	6.18	99.62
Northern Territory	17.52	0.90	0.80	0.85	0.09	113.15
Australian Capital Territory	0.03	1.51	1.52	1.52	92.34	99.62
Australia	100.00	100.00	100.00	100.00	1.90	99.71

(a) Number of persons per square kilometre.

(b) Number of males per 100 females.

ANNEX D TO PART ONE
POPULATION: EXTERNAL TERRITORIES
30 JUNE 1971 AND 1984

Territory	30 June 1971	30 June 1984
Christmas Island	2,691	32,000*
Cocos (Keeling) Island	618	584
Norfolk Island	1,683	1,800*

* Approximate only.

Source:

Cameron, R.J., Australian Statistician, Year Book, Australia 1985 (AGPS 1985).

B THE AUSTRALIAN ECONOMY

Statistics relating to the following relevant elements of the Australian economy are set out in Annexes as shown:

Defence Expenditure

Annex E Defence Expenditure 1969-70 to 1982-83 related to Total Commonwealth Government Outlay, Gross Domestic Product and the Consumer Price Index.

Overseas Trade

Annex F Foreign Trade 1962-63 to 1983-84.
Annex G Value of Exports and Imports, Australia - Proportions by Countries 1971-72, 1977-78 to 1981-82.
Annex H Value of Exports and Imports, Australia - Proportions by Commodity 1971-72, 1977-78 to 1981-82.
Annex I Overseas Trade Exports and Imports - Total Value and Value per Head of Population 1962-63 to 1982-83.
Annex J Direction of Overseas Trade, Australian Exports and Imports, Value by Port of Shipment 1965-66, 1972-73, 1982-83.

Agriculture

Annex K Gross Value of Agricultural Commodities Produced.
Annex L Shearing - Wool Production and Value.
Annex M The Dairy Industry.
Annex N Export of Fresh, Chilled and Frozen Meat.

Minerals and Industry

Annex O Value of Minerals Produced 1981-82 to 1983-84.
Annex P Quantities of Minerals Produced.
Annex Q Contents of Metallic Minerals Produced.
Annex Q(1) Australian Manufacturing and Mining Industries - Quantities Produced 1976-1983.

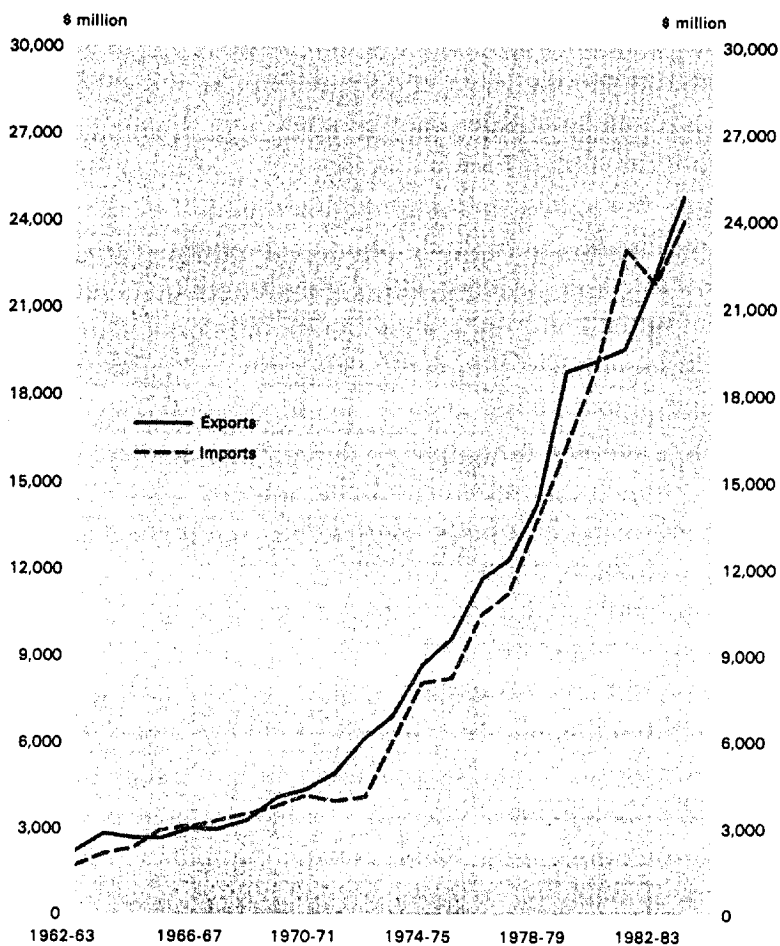
ANNEX E TO PART ONE
DEFENCE EXPENDITURE 1969-70 TO 1982-83
RELATED TO TOTAL COMMONWEALTH GOVERNMENT OUTLAY,
GROSS DOMESTIC PRODUCT AND THE CONSUMER PRICE INDEX

Year	Defence outlays		Total Govt. outlay	Defence outlay as % of total Govt. outlay	GDP	Defence outlay as % of GDP
	Current prices	Adjusted CPI (a)				
1969-70	1,041	952	7,044	14.78	30,540	3.41
1970-71	1,081	943	7,772	13.91	33,728	3.21
1971-72	1,127	921	8,630	13.06	37,665	2.99
1972-73	1,206	929	9,741	12.38	42,895	2.81
1973-74	1,306	890	11,908	10.97	51,383	2.54
1974-75	1,610	941	17,359	9.27	61,798	2.61
1975-76	1,852	958	21,442	8.64	72,859	2.54
1976-77	2,181	991	25,143	8.67	83,212	2.62
1977-78	2,377	986	28,062	8.47	90,329	2.63
1978-79	2,606	1,000	30,133	8.65	102,565	2.54
1979-80	3,008	1,047	33,219	9.06	115,667	2.60
1980-81	3,537	1,126	37,807	9.36	131,865	2.68
1981-82	4,135	1,192	43,195	9.57	149,649	2.76
1982-83	4,215	1,090	45,046	9.36	163,857	2.57

(a) = Base of index 1966-67=100.

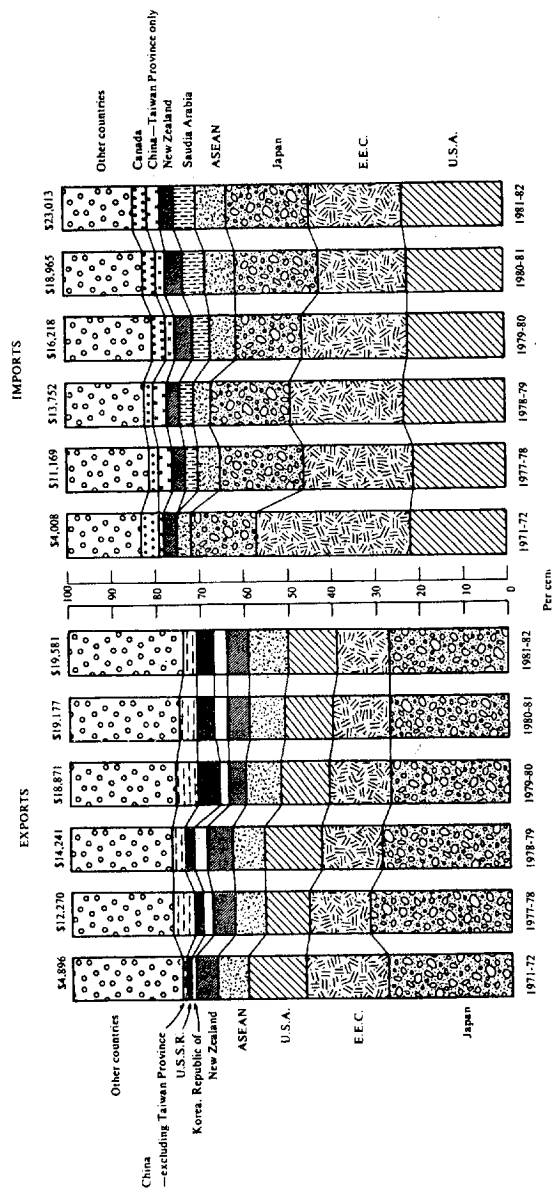
Sources: Australian Bureau of Statistics: Commonwealth Government Finance: Australia, 1973-74 to 1981-82.
Quarterly Estimates of National Income and Expenditure: Australia, December Quarter 1983.
Cameron, R.J., Australian Statistician, Year Book, Australia (AGPS 1975-76, 1982, 1983, 1985).
Consumer Price Index - March Quarter 1984.

ANNEX F TO PART ONE
FOREIGN TRADE 1962-63 TO 1983-84



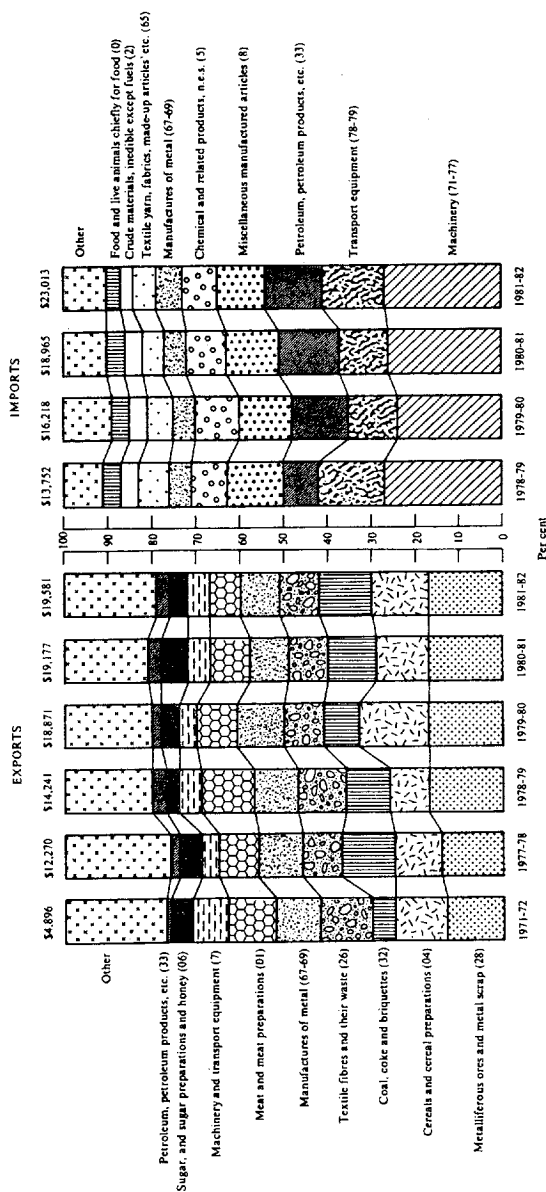
Source: Cameron, R.J., Australian Statistician, Year Book, Australia 1985 (AGPS 1985).

ANNEX G TO PART ONE
VALUE OF EXPORTS AND IMPORTS, AUSTRALIA
PROPORTIONS BY COUNTRY
1971-72, 1977-78 TO 1981-82



Source: Australian Bureau of Statistics, Overseas Trade Australia. Part 2: Comparative and Summary Tables 1981-82.

ANNEX H TO PART ONE
VALUE OF EXPORTS AND IMPORTS, AUSTRALIA
PROPORTIONS BY COMMODITY
1971-72, 1977-78 TO 1981-82



Source: Australian Bureau of Statistics. Overseas Trade Australia. Part 2: Comparative and Summary Tables 1981-82.

Source: Australian Bureau of Statistics, Overseas Trade Australia. Part 2: Comparative and Summary Tables 1981-82.

ANNEX I TO PART ONE
OVERSEAS TRADE
EXPORTS AND IMPORTS -
TOTAL VALUE AND VALUE PER HEAD OF POPULATION
1962-63 TO 1982-83

Year	Exports (a) \$m	Imports (b) \$m	Excess of Exports(+) or Imports(-) \$m	Value per head of population	
				Exports \$	Imports \$
1962-63	2,152	2,163	-11	198.5	199.4
1963-64	2,782	2,373	+409	251.6	214.5
1964-65	2,651	2,905	-253	235.1	257.5
1965-66	2,721	2,939	-219	236.6	255.6
1966-67	3,024	3,045	-21	258.3	260.1
1967-68	3,045	3,264	-220	255.3	273.7
1968-69	3,374	3,469	-94	277.2	285.0
1979-70	4,137	3,881	+256	332.3	312.1
1970-71	4,376	4,150	+226	343.7	326.0
1971-72	4,896	4,008	+888	377.8	309.3
1972-73	6,214	4,121	+2,093	470.8	312.2
1973-74	6,914	6,085	+829	504.7	444.2
1974-75	8,726	8,080	+646	627.8	581.3
1975-76	9,640	8,241	+1,399	688.6	588.6
1976-77	11,652	10,411	+1,241	820.6	733.2
1977-78	12,270	11,169	+1,101	852.1	775.6
1978-79	14,241	13,752	+489	982.1	948.4
1979-80	18,871	16,218	+2,653	1,283.7	1,103.3
1980-81	19,177	18,965	+212	1,287.0	1,272.8
1981-82	19,581	23,013	-3,432	1,288.2	1,514.0
1982-83	22,205	21,810	+395	1,441.9	1,416.2

(a) Excludes stores loaded on overseas vessels and aircraft (1962-72)

(b) Figures from 1976-77 are not comparable with previous years because of a change in the basis of evaluation. (See para. 8, Explanatory Notes, Overseas Trade Australia, Part 2, 1980-81.)

Sources: Commonwealth Bureau of Census and Statistics, Overseas Trade 1971-72, Bulletin No. 69.

Australian Bureau of Statistics, Overseas Trade Australia, Part 2, 1981-82.

Population estimates, Australia,

Cameron, R.J., Australian Statistician, Year Book, Australia 1985 (AGPS 1985).

ANNEX J TO PART ONE
DIRECTION OF OVERSEAS TRADE
AUSTRALIAN EXPORTS AND IMPORTS, VALUE BY PORT OF SHIPMENT
1965-66, 1972-73, 1982-83
(\$'000 f.o.b.)

Country	Exports			Imports		
	1965-66	1972-73	1982-83	1965-66	1972-73	1982-83
Bahrain	na	13,543	91,591	na	30,122	40,138
Belgium-Luxembourg	49,621	60,642	165,531	16,517	36,629	124,563
Canada	43,207	165,561	316,569	107,966	134,595	434,612
China, People's Republic	105,901	62,849	611,928	23,454	49,924	278,921
France	118,097	188,606	498,833	89,219	75,530	454,745
Germany, Federal Republic	99,565	203,098	548,913	168,111	288,126	1,300,458
Hong Kong	58,813	94,930	349,495	25,742	80,307	485,265
India	27,359	37,399	208,955	35,007	31,952	142,317
Indonesia	5,359	75,629	375,423	61,960	13,586	561,719
Iran	14,118	25,819	231,945	34,089	18,489	39,687
Italy	109,692	132,923	368,397	49,735	86,586	538,172
Japan	471,443	1,933,946	6,007,339	280,832	738,633	4,504,416
Korea, Republic of	4,858	52,916	833,261	na	10,435	292,829
Kuwait	5,233	15,771	131,869	28,255	30,227	354,386
Malaysia (a)	49,753	97,921	454,323	32,459	38,430	214,683
Netherlands	37,383	63,911	292,126	40,241	55,790	303,349
New Zealand	171,552	325,622	1,162,258	46,846	130,115	694,275
Papua New Guinea	72,818	134,793	508,516	17,618	24,595	69,040
Philippines	24,028	49,393	187,574	2,517	7,787	84,010
Poland	17,296	54,734	69,624	1,939	3,759	10,369
Saudi Arabia	6,354	13,695	344,544	45,838	20,206	978,448
Singapore (b)	34,027	132,125	729,236	3,314	40,014	599,830
South Africa	22,366	95,120	144,576	17,399	20,621	84,935
Sri Lanka	17,408	10,953	22,208	17,563	9,620	11,305
Sweden	9,134	22,604	33,968	51,820	82,887	277,736
Switzerland	4,747	7,658	32,890	43,178	65,891	197,391
Taiwan	16,961	69,837	550,088	4,270	54,339	649,568
Thailand	15,363	36,285	176,432	1,150	7,034	89,436
United Arab Emirates	na	11,489	129,851	11,641	4,323	398,198
United Kingdom	474,645	603,487	1,175,706	758,889	768,011	1,467,787
United States of America	338,601	760,628	2,241,850	703,349	859,742	4,764,367
Union of Soviet Socialist Republic	47,909	126,021	506,952	1,578	2,975	12,314
Others	252,400	541,240	2,702,475	216,080	298,476	1,351,069
TOTAL	2,726,011	6,220,148	22,205,246	2,938,576	4,119,756	21,810,338

(a) Includes Singapore to 30 September 1965.

(b) Recorded separately from 1 October 1965.

na Not available.

ANNEX K TO PART ONE
GROSS VALUE OF AGRICULTURAL COMMODITIES PRODUCED
(\$ million)

	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82
Wheat	1,052	935	2,296	2,478	1,684	2,480
Sugar Cane	472	421	396	548	800	604
Fruit and Nuts	419	416	538	638	665	648
Vegetables	295	324	403	402	509	529
Pasture and Grasses	147	118	161	177	240	285
Other Crops	805	783	1,118	1,298	1,434	1,581
Total Crops	3,190	3,047	4,913	5,541	5,332	6,127
Livestock slaughterings	1,686	1,954	3,098	3,659	3,474	3,264
Livestock products	1,881	1,970	2,214	2,564	2,804	3,028
Total Agriculture	6,757	6,972	10,225	11,764	11,610	12,420
=====						

ANNEX L TO PART ONE
SHEARING, WOOL PRODUCTION AND VALUE

	Sheep and lambs shorn (million)	Quantity ('000 tonnes)	Gross value (\$m)
1976-77	145.8	702.7	1,173
1977-78	143.5	677.0	1,206
1978-79	146.9	704.3	1,374
1979-80	148.5	708.5	1,651
1980-81	150.0	700.2	1,670
1981-82	154.4	710.7	1,754

ANNEX M TO PART ONE
THE DAIRY INDUSTRY

	Whole milk intake of factories		Butter production in factories	Cheese production in facto- ries *
	Total intake (million litres)	Gross Value (\$ million)	('000 tonnes)	('000 tonnes)
1978-79	5,648	627.7	104.8	141.8
1979-80	5,398	676.0	84.3	154.2
1980-81	5,181	885.1	79.2	136.7
1981-82	5,199	1,011.4	76.4	153.3

* Only for non-processed cheese.

ANNEX N TO PART ONE
EXPORTS OF FRESH, CHILLED OR FROZEN MEAT

EXPORTS OF FRESH, CHILLED OR FROZEN MEAT

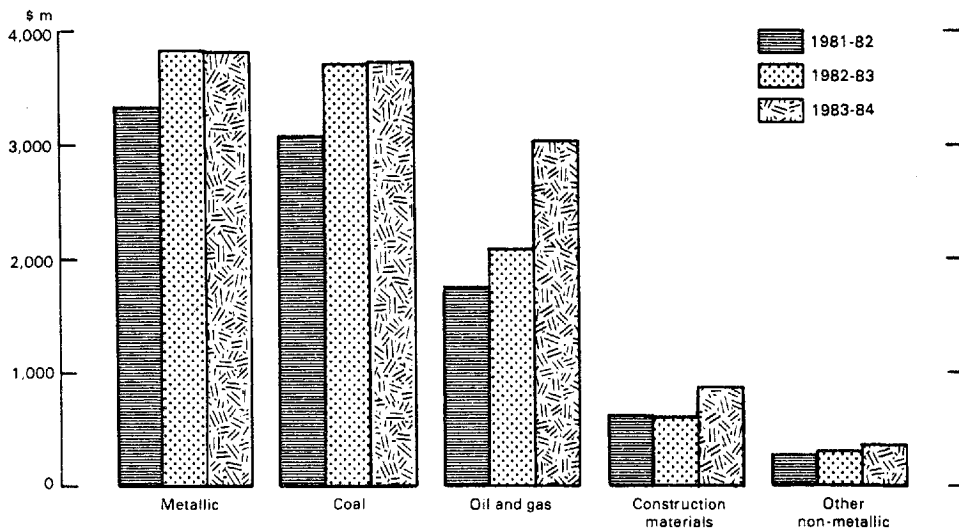
<i>Year</i>	<i>Beef</i>	<i>Veal</i>	<i>Mutton</i>	<i>Lamb</i>	<i>Pork</i>	<i>Poultry</i>
QUANTITY (a) ('000 tonnes)						
1978-79	1,193.7	23.0	169.2	46.5	1.9	6.7
1979-80	846.6	17.4	182.1	49.6	1.9	7.3
1980-81	753.7	13.6	241.5	39.4	2.4	7.7
1981-82	775.2	8.5	154.6	32.1	1.5	4.1
1982-83	817.2	10.1	201.1	36.9	1.8	2.2
1983-84	653.1	5.4	90.8	33.1	2.0	1.2
VALUE f.o.b. (\$ million)						
1978-79	1,339.2	26.6	135.2	52.0	3.1	8.0
1979-80	1,295.6	31.9	172.6	62.4	3.7	10.6
1980-81	1,086.4	22.9	248.2	62.3	5.7	12.1
1981-82	1,009.8	14.4	155.3	50.7	3.1	7.3
1982-83	1,164.8	17.9	167.1	61.1	5.4	4.4
1983-84p	1,101.7	11.9	84.0	53.3	6.2	2.5

(a) Quantity data on beef, veal, mutton and lamb exports are shown in carcass weight equivalents.

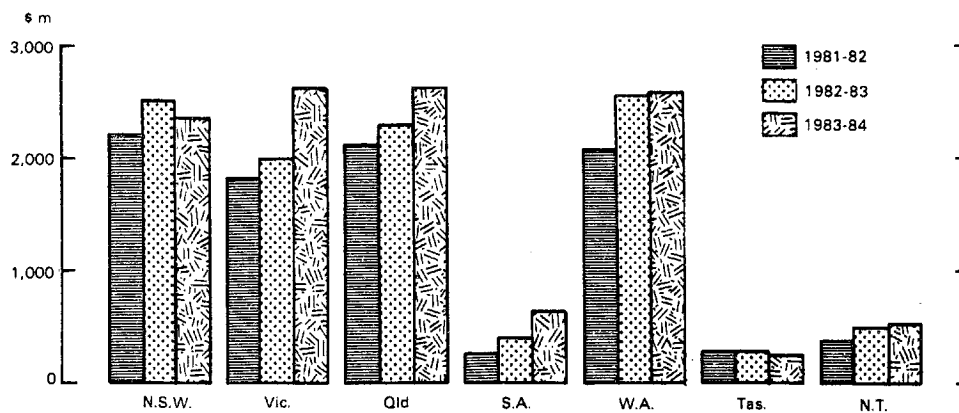
Source: Cameron R.J., Australian Statistician, Year Book, Australia 1985 1985 (AGPS 1985).

ANNEX O TO PART ONE
VALUE OF MINERALS PRODUCED, AUSTRALIA
1981-82 TO 1983-84

Source: Australian Bureau of Statistics from
Mineral Production, Australia 1983-84.



VALUE OF MINERALS PRODUCED BY STATE



VALUE OF MINERALS PRODUCED
(\$ 000)

Commodity code	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	1983-84	1982-83	1981-82
Mineral										
METALLIC MINERALS										
556 Antimony concentrate	378	—	3	—	—	—	—	381	425	1,235
557 Bauxite concentrate	—	n.p.	144,968	—	n.p.	—	n.p.	275,385	n.p.	n.p.
560 Copper ore	21,240	—	184,310	n.p.	n.p.	n.p.	n.p.	2,242	264,144	231,952
503 Copper ore	—	—	2,242	—	—	—	—	—	1,174	8,110
505 Copper oxide	—	—	—	—	—	—	—	—	n.p.	6,848
506 Copper precipitate	—	—	—	—	—	—	—	—	n.p.	2,083
509 Gold bullion(b)	1,575	n.p.	23,465	—	362,930	—	n.p.	2,976	2,783	20,533
511 Gold concentrate	1,521	—	1,405	—	—	—	—	33	1,412	1,412
512 Gold ore	—	n.p.	—	—	—	—	—	—	n.p.	1,792
(c) Other gold	—	n.p.	—	—	—	—	—	—	n.p.	92
Iron ore(d)	—	—	—	15,936	1,166,341	n.p.	—	—	n.p.	1,131,186
516 Cement manufacture	186	—	135	—	—	n.p.	—	—	n.p.	615
517 Coal washing	—	—	1,790	—	—	—	—	1,790	1,315	1,630
532 Lead concentrate	100,362	—	181,120	—	—	n.p.	n.p.	n.p.	n.p.	252,136
535 Lead-copper concentrate	—	—	—	—	—	n.p.	—	n.p.	n.p.	21,474
537 Lead ore	—	—	924	n.p.	—	n.p.	—	n.p.	n.p.	23
546 Lead-zinc concentrate	9,786	—	—	—	—	—	—	9,786	9,723	8,445
Manganese ore—	—	—	—	—	—	—	—	—	—	—
563 Metallurgical grade	—	—	—	—	—	—	n.p.	n.p.	n.p.	46,136
565 Other grades	—	—	—	—	—	—	n.p.	n.p.	n.p.	209
Mica—	—	—	—	—	—	—	—	—	—	—
522 Ilmenite concentrate(e)	268	—	724	—	36,030	—	—	37,022	26,737	36,610
523 Leucocane concentrate	—	—	—	—	2,958	—	—	2,958	2,889	4,200
524 Monazite concentrate	182	—	21	—	6,483	—	—	6,666	4,901	4,607
525 Rutile concentrate	8,731	—	20,679	—	13,469	—	—	42,879	47,817	61,758
528 Xenotime concentrate	—	—	—	—	—	—	—	—	—	—
530 Zircon concentrate	7,271	—	7,338	—	28,802	—	—	43,431	40,892	37,526
567 Molybdenum concentrate	—	—	—	—	—	n.p.	—	n.p.	n.p.	193
532 Nickel concentrate	—	—	—	—	n.p.	—	—	n.p.	n.p.	n.p.
533 Nickel ore	—	—	7,892	—	—	—	—	7,892	12,476	n.p.
542 Silver ore	—	—	—	—	—	—	—	—	n.p.	n.p.
570 Tantale-columbite concentrate	—	—	—	n.p.	2,411	—	—	2,411	n.a.	n.a.
549 Tin concentrate	17,766	—	(124,212)	—	6,349	n.p.	—	n.p.	3,571	11,576
550 Tin-copper concentrate	—	—	—	—	—	n.p.	—	n.p.	133,405	141,724
551 Tin-tantalite concentrate	—	—	—	—	—	n.p.	n.p.	n.p.	n.p.	278
Tungsten concentrates—	—	—	—	—	—	—	—	—	—	—
571 Scheelite concentrate	—	—	860	—	—	n.p.	—	n.p.	n.p.	27,612
573 Wolfram concentrate	3	—	8,888	—	—	—	—	8,891	n.p.	15,607
575 Uranium concentrate	—	—	—	—	—	n.p.	n.p.	278,060	n.p.	356,219
543 Zinc concentrate	150,804	—	73,517	—	n.p.	n.p.	—	278,060	220,546	n.p.
546 Zinc ore	—	—	—	3,161	—	—	—	3,161	1,005	n.p.
547 Zirconium concentrate	310	—	—	—	—	—	—	310	n.a.	n.a.
Other metallic minerals	—	—	—	—	—	—	—	—	—	—
Total metallic minerals	320,383	1,946	684,592	36,274	2,046,956	206,431	520,039	3,816,531	3,830,345	3,330,453
COAL										
Black coal—	—	—	—	—	—	—	—	—	—	—
581 Briquettes	—	—	6,443	—	—	—	—	6,443	10,139	5,768
580 Bituminous	1,733,358	—	1,576,932	—	—	10,459	—	3,320,769	3,303,340	2,777,212
582 Sub-bituminous	—	—	83,201	(g)43,160	106,325	—	—	234,686	205,531	143,903
Total	1,733,358	—	1,668,596	(g)43,160	106,325	10,459	—	3,561,898	3,519,010	2,926,883
Brown coal—	—	—	—	—	—	—	—	—	—	—
588 Briquettes	—	135,736	—	—	—	—	—	135,736	150,788	137,138
589 Other	—	18,136	—	—	—	—	—	18,136	19,808	22,754
586 Briquettes	—	—	—	—	—	—	—	—	—	—
Total coal	1,733,358	153,872	1,668,596	(g)43,160	106,325	10,459	—	3,715,770	3,689,606	3,086,774

For footnotes see end of table.

VALUE OF MINERALS PRODUCED—continued

Com- modity code	Mineral	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	1983-84	1982-83	1981-82
590&592	OIL AND GAS										
591	Crude oil stabilised (incl. condensate)										
593	Natural gas		n.p.	79,579	462,860	n.p.	—	n.p.	3,024,008	2,089,401	1,779,989
594	Liquefied petroleum gases(h)—										
595	Propane										
	Butane										
601	Total oil and gas		n.p.	79,579	462,860	n.p.	—	n.p.	3,024,008	2,089,401	1,779,989
600	CONSTRUCTION MATERIALS(h)										
605	Sand	45,007	n.p.	29,259	13,985	n.a.	2,634	n.p.	(j)123,520	(j)112,502	(j)110,239
600	Gravel	47,406	n.p.	25,200	147	n.a.	4,905	n.p.	(j)98,606	(j)75,627	(j)80,566
605	Crushed and broken stone	88,137	n.p.	97,630	11,152	34,954	14,155	n.p.	374,348	320,563	325,406
625	Dimension stone	1,949	n.p.		1,569	n.p.	48	—	91,996	95,997	94,148
640	Other (decomposed rock, etc.)	45,681	9,352	7,083	24,950	—	132	—	—	—	—
	Total construction materials	228,180	n.p.	159,173	51,802	n.p.	21,873	n.p.	688,470	684,689	610,357
680	OTHER NON-METALLIC MINERALS										
684	Asbestos (chrysotile)	12	—	—	450	—	—	—	462	4766	14,464
685	Carbon dioxide	—	—	—	154	—	—	—	154	287	287
(k)	Clays	112	—	1,128	—	—	—	—	—	—	—
667	Bentonite and bentonitic clay	10,831	2,644	843	1,721	4,388	n.p.	n.p.	1,240	n.p.	937
668	Brick clay and shale	690	—	215	n.p.	n.p.	n.p.	n.p.	21,007	18,996	27,029
670	Cement clay and shale	438	n.p.	168	18	n.p.	n.p.	n.p.	1,547	1,612	1,756
672	Fireclay n.e.i.	2,482	5,436	—	302	n.p.	n.p.	—	9,325	9,325	7,637
674	Keolin (incl. ball clay)(l)	(m)398	n.p.	22	—	n.p.	n.p.	—	645	657	771
676	Other clays	146	n.p.	—	—	n.p.	n.p.	—	n.p.	n.p.	458
(n)	Stoneware, clay	—	n.p.	—	90	n.p.	n.p.	—	1,270	1,573	n.p.
686	Diatomite	1,022	—	232	2,001	n.p.	n.p.	—	1,022	n.p.	336
688	Dolomite	122	—	11	—	n.p.	n.p.	—	n.p.	n.p.	2,291
689	Feldspar (incl. cornish stone)	6	—	—	—	n.p.	n.p.	—	n.p.	n.p.	122
691	Garnet concentrate	—	—	—	—	n.p.	n.p.	—	n.p.	n.p.	n.p.
694	Chrysoprase	—	—	159	—	—	—	—	159	164	131
695	Opal	14,929	—	953	(o)30,103	—	—	—	45,987	42,131	45,374
696	Sapphire	4,627	—	9,000	—	—	—	—	13,627	21,566	22,675
702	Other	11	—	27	65	n.p.	—	—	n.p.	n.p.	103
702	Gypsum	48	1,606	n.p.	3,122	4,901	—	—	10,000	9,284	10,000
705	Lithium ore	17,199	n.p.	n.p.	5,320	885	3,770	—	54,767	58,785	58,785
705	Magnesite, crude	3,558	n.p.	100	n.p.	885	—	—	885	n.p.	n.p.
708	Mica	—	—	—	n.p.	n.p.	—	—	4,161	n.p.	2,824
709	Mineral pigments, ochres etc.	—	—	—	n.p.	n.p.	—	—	n.p.	n.a.	n.p.
710	Peat	196	—	14	—	n.p.	n.p.	—	n.p.	n.p.	n.p.
711	Perlite	—	—	—	—	n.p.	n.p.	—	n.p.	n.p.	n.p.
713	Quartz	—	—	82	—	n.p.	n.p.	—	62	n.p.	14
714	Pyrophyllite	—	—	149	51	—	—	—	200	4,799	5,342
715	Phosphate rock	—	—	—	—	—	—	—	344	389	325
717	Pyrophyllite	344	—	—	—	—	—	—	n.p.	n.p.	52,177
724	Salt	—	3,884	n.p.	2,445	65,101	—	—	23,466	18,357	18,494
(p)	Silica	5,237	n.p.	6,797	1,132	1,325	n.p.	—	28	35	47
736	Silicic acid	—	—	—	28	n.p.	—	—	n.p.	n.p.	n.p.
737	Steatite	2	—	—	796	n.p.	—	—	n.p.	n.p.	n.p.
738	Vermiculite	—	—	—	—	—	—	—	—	—	—
745	Other	—	—	—	3	—	—	—	3	—	2
	Total other non-metallic minerals	62,870	n.p.	48,446	47,813	176,843	6,596	n.p.	362,182	385,658	281,558
	Total all minerals and construction materials	2,344,792	2,618,888	2,632,296	641,999	2,584,321	245,359	539,397	11,606,962	18,519,699	9,889,128

(a) Australian Capital Territory, excluded for 1983-84. (b) Includes alluvial gold. (c) See footnote (d) of Table 1. (d) See footnote (e) of Table 1. (e) See footnote (f) of Table 1. (f) Includes refined lanthan. (g) See footnote (h) of Table 1. (h) Commodity codes 669,671,672,673. (i) Estimated. (j) Commodity codes 725,726,727,728.

ANNEX P TO PART ONE QUANTITY OF MINERALS PRODUCED

Source: Australian Bureau of Statistics from
Mineral Production, Australia 1983-84.

Commodity code	Mineral	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Australia(a)		
					1983-84				1983-84	1982-83	1981-82
METALLIC MINERALS											
556	Antimony concentrate	471	n.p.	2	—	—	—	—	473	496	1,023
596	Barite concentrate	122	—	7,961	—	n.p.	—	n.p.	n.p.	n.p.	24,690
502	Copper ore	—	—	40,371	n.p.	42	91	n.p.	n.p.	n.p.	905
503	Copper oxide	—	—	—	—	—	—	—	40,371	15,864	22,067
505	Copper concentrate	—	—	—	—	—	—	—	—	n.p.	4,360
506	Copper precipitate	191	187	2,351	—	31,061	—	n.p.	n.p.	682	2,543
509	Gold bullion(b)	1,091	—	700	—	—	—	n.p.	1,791	n.p.	21,008
511	Gold concentrate	3	n.p.	—	439	—	—	—	442	1,022	554
510	Gold ore	—	n.p.	—	—	—	—	—	n.p.	n.p.	3,081
512	Other gold	—	n.p.	—	—	—	—	—	76,478	n.p.	86,786
(c)	Iron ore(d)	—	—	—	1,776	72,604	n.p.	—	—	78,971	—
516	Iron concentrate	14,384	—	10,759	—	—	—	—	—	n.p.	50,397
517	Lead concentrate	290	—	25,336	—	—	n.p.	—	25,336	18,609	30,465
535	Lead-copper concentrate	—	—	385	—	—	34	n.p.	20,835	724	704
536	Lead ore	—	—	—	—	—	20,835	—	—	24,968	31,999
537	Lead-zinc concentrate	37,932	—	46,552	n.p.	—	—	—	37,932	n.p.	123
546	Manganese ore	—	—	—	—	—	—	—	—	40,205	41,179
563	Metalurgical grade	—	—	—	—	—	—	n.p.	n.p.	n.p.	1,198
565	Other grades	—	—	—	—	—	—	n.p.	n.p.	n.p.	38
572	Mineral sands	17	—	42	—	958	—	—	1,017	932	1,238
523	Monazite concentrate(e)	—	—	—	—	15	—	—	15	14	20
524	Monazite concentrate	1	—	—	17	16	—	—	17	11	11
525	Rutile concentrate	35	—	76	—	52	—	—	163	195	220
528	Xenotime concentrate	—	—	—	—	—	—	—	—	n.p.	—
529	Zircon concentrate	60	—	65	—	287	—	—	412	404	459
567	Molybdenum concentrate	—	—	—	—	506	24	—	506	n.p.	45
532	Nickel concentrate	—	—	1,118	—	—	—	—	1,118	483	423
533	Nickel ore	—	—	—	n.a.	—	—	—	1,118	1,711	2,231
542	Silver ore	—	—	—	—	92	—	—	92	149	263
540	Tantalite-columbite concentrate	2,832	—	(03,510	—	654	9,452	—	16,448	20,424	24,604
549	Tin concentrate	—	—	—	—	—	1,618	—	1,618	1,955	3,189
550	Tin-tantalite concentrate	—	—	—	—	—	—	n.p.	n.p.	n.a.	25
551	Tungsten concentrates—	—	—	155	—	—	1,646	—	1,801	2,307	3,364
571	Scheelite concentrate	1	—	1,498	—	—	—	—	1,499	1,502	2,017
573	Wolfram concentrate	—	—	—	—	—	—	n.p.	n.p.	n.p.	5,086
575	Uranium concentrate	588	—	369	—	59	131	—	1,147	1,206	1,097
543	Zinc concentrate	—	—	—	27,379	—	—	—	27,379	11,987	—
544	Zinc ore	1,755	—	—	—	—	—	—	1,755	n.a.	n.a.
579	Other metallic minerals	—	—	—	—	—	—	—	—	—	—
COAL											
581	Black coal—	—	—	220	—	—	—	—	220	201	142
580	Semi-anthracite	66,823	—	39,565	—	—	276	—	106,664	98,687	92,246
582	Bituminous	—	—	4,252	1,269	3,942	—	—	9,463	8,880	7,172
582	Sub-bituminous	—	—	—	—	—	—	—	—	—	—
	Total	66,823	—	44,036	1,269	3,942	276	—	116,346	107,768	99,560
...	Underground	42,822	—	3,617	—	826	276	—	47,541	50,361	49,476
...	Open cut	24,001	—	40,419	1,269	3,115	—	—	68,804	57,407	49,938

For footnotes see end of table.

3 QUANTITY OF MINERALS PRODUCED—continued

Comm- odity code	Mineral	1983-84				N. T.	Australia(a)			
		N.S.W.	Vic.	Qld	S.A.		1983-84	1982-83	1981-82	1980-81
COAL—continued										
588	Brown coal—	—	1,900	—	—	—	—	1,900	1,956	2,658
589	For briquettes	—	31,345	—	—	—	—	31,345	33,042	34,904
586	Briquettes	—	760	—	—	—	—	760	760	993
OIL AND GAS(g)										
590&592	Crude oil—stabilised (incl. condensate)	—	24,051	284	1,233	1,258	—	26,826	22,069	22,378
591	Natural gas(h)	—	5,797	434	4,853	1,011	3	12,098	11,654	11,550
593	Ethane	—	175	—	—	—	—	175	169	152
594	Liquefied petroleum gases(i)—	—	1,629	—	—	—	—	1,630	1,513	1,536
595	Propane	—	1,500	—	—	—	—	1,501	1,393	1,496
595	Butane	—	—	—	—	—	—	—	—	—
CONSTRUCTION MATERIALS(j)										
601	Sand	8,402	n.p.	5,830	2,797	n.a.	450	(k)24,760	(k)24,312	(k)28,712
600	Gravel	4,486	n.p.	3,714	78	n.a.	1,165	(k)14,612	(k)13,240	(k)16,088
605	Crushed and broken stone	10,452	n.p.	19,874	3,280	4,948	2,023	55,407	50,619	58,478
625	Dimension stone	22	18	—	—	51	1	—	—	—
640	Other (decomposed rock, etc.)	17,706	2,474	2,917	5,969	—	48	29,239	30,066	34,105
OTHER NON-METALLIC MINERALS										
680	Asbestos (chrysotile)	1,180	—	—	16,578	—	—	17,758	18,039	18,964
684	Barite	—	—	—	—	—	—	—	—	—
685	Carbon dioxide	—	—	—	—	—	—	—	—	—
Clays—										
(l)	Bentonite and bentonitic clay	4	—	28	—	—	—	32	n.p.	33
667	Brick clay and shale	2,487	999	979	707	1,093	n.p.	6,476	6,198	7,882
668	Cement clay and shale	152	—	113	33	n.p.	n.p.	393	431	477
670	Fireclay n.e.i.	26	n.p.	—	2	n.p.	—	39	n.p.	81
672	Kaolin (incl. ball clay)(m)	67	60	3	5	n.p.	—	160	121	134
674	Pipe and tile clay	(n)58	n.p.	7	—	n.p.	—	106	150	241
676	Stoneware clay	28	n.p.	—	—	n.p.	—	n.p.	n.p.	134
(o)	Other clays	—	n.p.	—	1	n.p.	—	45	37	66
686	Diatomite	6,219	—	24	570	—	22	6,219	530	2,274
688	Dolomite	2	—	24	—	n.p.	—	618	n.p.	653
689	Felspar (incl. cornish stone)	164	—	600	—	n.p.	—	n.p.	n.p.	5,116
691	Garnet concentrate	—	—	—	—	n.p.	—	n.p.	n.p.	n.p.
Gems										
704	Gypsum	29	222	—	1,002	616	—	1,869	1,492	2,091
655	Limestone (incl. shell and coral)	3,024	n.p.	n.p.	1,583	n.p.	607	10,333	n.p.	12,790
705	Lithium ores	—	—	—	—	4,593	—	4,593	1,747	—
708	Magnesian, crude	28,279	n.p.	1,753	1,497	n.p.	—	n.p.	n.p.	26,980
709	Mica	—	—	—	—	n.p.	—	n.p.	n.p.	n.a.
710	Mineral pigments, ochres etc.	2,886	—	1,849	—	n.p.	—	n.p.	n.p.	386
711	Peat	—	—	—	—	620	—	n.p.	n.p.	1,220
713	Pebbles-for grinding	—	—	—	3	n.p.	—	n.p.	n.p.	1,220
714	Perlite	—	—	—	—	n.p.	—	n.p.	n.p.	1,300
715	Phosphate rock	—	—	—	—	—	—	12,137	12,690	149,730
717	Pyrophyllite	—	—	—	—	—	—	12,137	12,690	149,730
724	Salt	7,189	111	n.p.	670	4,473	—	7,189	9,835	8,879
726	Silica	—	—	—	—	—	—	—	—	—
735	Slate	450	407	767	125	270	42	2,060	n.p.	4,985
736	Sillimanite	—	—	—	—	—	—	n.p.	n.p.	1,895
737	Talc (incl. steatite)	—	—	—	287	159	287	287	411	577
738	Vermiculite	—	—	—	17	298	—	176	126	106
745	Other	—	—	—	2	—	—	298	56	429

(a) Australian Capital Territory excluded for 1983-84, included for 1982-83 and 1981-82. (b) Includes alluvial gold. (c) Commodity codes 513, 514, 515. (d) Includes iron ore for pellet production. (e) Includes limestone from which iron and steel are produced. (f) Includes iron ore for blast furnace use. (g) Includes iron ore for direct reduction. (h) Includes iron ore for pig iron production. (i) Includes iron ore for steel production. (j) Includes iron ore for steel production. (k) Includes iron ore for steel production. (l) Includes iron ore for steel production. (m) Includes refined kaolin. (n) Pipe clay is included with stoneware clay. (o) Commodity codes 669, 671, 675, 679. (p) Commodity codes 725, 726, 727, 728. (q) Excludes Western Australian production. (r) Commodity codes 665, 666. (s) Includes field and plant use only.

QUANTITY OF SELECTED MINERALS, AUSTRALIAN AND ESTIMATED WORLD PRODUCTION, 1983
(Source: Bureau of Mineral Resources, Geology and Geophysics)

Mineral	Estimated world production	Australian production	Australian production as a percentage of estimated world production	World's leading producer	
				Country	Production
Bauxite	mega tonnes	77	31.2	Australia	(a)24
Black coal-salable	mega tonnes	2,869	3.4	USA	670
Brown coal	mega tonnes	(b)1,057	3.4	Germany D.R.	280
Copper in ores and concentrates	'000 tonnes	8,189	3.2	Chile	1,257
Iron ore	mega tonnes	750	9.5	USSR	245
Lead in ores and concentrates(c)	'000 tonnes	3,450	13.9	USSR	580
Manganese ore	'000 tonnes	21,460	6.4	USSR	10,400
Mineral sands:					
Ilmenite concentrate	'000 tonnes	(d)3,510	25.8	Australia	(e)906
Rutile concentrate	'000 tonnes	335	48.7	Australia	163
Zircon concentrate	'000 tonnes	(f)680	56.2	Australia	382
Nickel in ores and concentrates	'000 tonnes	637	12.1	USSR	170
Salt	mega tonnes	166	3.0	USA	29
Silver in ores and concentrates	tonnes	12,247	8.4	Mexico	1,773
Tin in ores and concentrates	'000 tonnes	173	5.2	Malaysia	41
Tungsten in concentrates	'000 tonnes	(g)28	11.1	China	(h)10
Zinc in ores and concentrates(i)	'000 tonnes	6,498	10.8	Canada	1,069

(a) Excludes Victoria. (b) Excludes mainland China. (c) Lead content of lead and other metallic ores and concentrates. (d) Includes titanium slag produced in Canada and South Africa. Excludes centrally planned economies. (e) Includes Leucovene. (f) Western world production. (g) Excludes U.S.S.R. and Democratic People's Republic of Korea. (h) Estimated. (i) Zinc content of zinc and other metallic ores and concentrates.

ANNEX Q TO PART ONE CONTENTS OF METALLIC MINERALS PRODUCED

Source: Australian Bureau of Statistics from
Mineral Production, Australia 1983-84.

In this table the contents of the various minerals have been tabulated to show the aggregate quantity of each metal, metallic oxide or element contained in the various metallic minerals produced. The totals compiled in this way are known as 'Mine Production' and, as no allowance has been made for losses in smelting and refining, they are, in general, greater than the quantities actually recovered.

Commodities compiled in this way are known as **main production minerals** and are listed in the following table.

Commodity code	Mineral in which contained	N.S.W.		Vic.	Qld	1983-84		Tas.	N.T.	1983-84		1981-82	
							S.A.			W.A.	1982-83	Australia	
ANTIMONY (tonnes)													
556	Antimony concentrate	297	—	—	—	1	—	—	—	—	298	331	681
535	Lead concentrate	374	—	—	—	—	—	—	—	—	374	404	496
536	Lead-zinc concentrate	30	—	—	—	—	—	—	—	—	30	33	41
579	Other metallic minerals	17	—	—	—	—	—	—	—	—	17	—	—
	Total	718	—	—	—	1	—	—	—	—	719	768	1,218
CADMIUM (tonnes)													
535	Lead concentrate	111	—	—	—	102	—	—	—	—	213	174	178
536	Lead-zinc concentrate	56	—	—	—	—	—	—	—	—	56	66	53
543	Zinc concentrate	1,172	—	—	—	589	—	184	—	—	1,945	n.p.	1,852
	Total	1,339	—	—	—	691	—	184	—	—	2,214	n.p.	2,083
COBALT (tonnes)													
532	Nickel concentrate	—	—	—	—	—	—	562	—	—	562	550	408
533	Nickel ore	60	—	—	—	1,330	—	—	—	—	1,330	2,191	2,610
543	Zinc concentrate	—	—	—	—	—	—	—	—	—	60	92	57
	Total	60	—	—	—	1,330	—	562	—	—	1,952	2,833	3,075
COPPER (tonnes)													
502	Copper concentrate	19,742	—	—	—	156,570	n.p.	9,417	23,471	n.p.	233,320	207,893	230,952
503	Copper ore	—	—	—	—	2,130	—	—	—	—	2,130	2,763	5,169
506	Copper precipitate	—	—	—	—	—	—	—	—	—	—	n.p.	3,415
511	Gold concentrate	—	—	—	—	—	—	—	—	—	—	586	2,113
535	Lead concentrate	3,561	—	—	—	939	—	—	152	—	4,632	n.p.	5,854
546	Lead-copper concentrate	—	—	—	—	—	—	—	2,338	—	2,338	3,026	3,901
536	Zinc concentrate	172	—	—	—	—	—	—	—	—	172	170	295
537	Nickel concentrate	—	—	—	—	—	—	3,808	n.p.	—	3,808	3,532	2,848
550	Tin-copper concentrate	2,066	—	—	—	—	—	—	n.p.	—	n.p.	n.p.	581
543	Zinc concentrate	—	—	—	—	—	—	—	n.p.	—	n.p.	n.p.	2,733
	Total	25,541	—	—	—	159,648	n.p.	13,225	26,748	n.p.	249,282	235,302	259,707
GOLD (kg)													
502	Copper concentrate	15	—	—	—	—	—	—	n.p.	n.p.	n.p.	935	2,004
503	Copper ore	114	—	—	—	—	—	25,906	—	n.p.	—	1	1
509	Gold bullion(a)	—	—	—	—	1,682	—	—	—	n.p.	116	2,259	17,612
511	Gold concentrate	—	—	—	—	119	3	—	—	n.p.	119	161	161
510	Gold ore	—	—	—	n.p.	—	—	—	—	n.p.	3	83	9
512	Other gold	—	—	—	—	—	—	—	—	—	n.p.	8	—
535	Lead concentrate	443	—	—	—	—	—	—	78	—	521	n.p.	391
536	Lead-copper concentrate	—	—	—	—	—	—	—	1,039	—	1,039	n.p.	1,305
537	Lead ore	—	—	—	—	—	2	—	—	—	2	n.p.	2
546	Lead-zinc concentrate	18	—	—	—	—	—	278	—	—	18	n.p.	4
532	Nickel concentrate	—	—	—	—	—	—	—	—	—	—	n.p.	197
539	Zinc concentrate	240	—	—	—	—	—	—	165	—	405	n.p.	308
579	Other metallic minerals	6	—	—	—	—	—	—	—	—	6	—	—
	Total	836	n.p.	—	1,801	5	26,184	n.p.	31,881	n.p.	25,825	22,328	22,328

(a) Includes alluvial gold.

CONTENTS OF METALLIC MINERALS PRODUCED—continued

Commodity code	Mineral in which contained	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Australia	
					1983-84				1983-84	1981-83
(b)	Iron ore	—	n.p.	—	n.p.	46,067	n.p.	—	n.p.	n.p.
	IRON ('000 tonnes)									
	LEAD (tonnes)									
502	Copper concentrate	3,984	—	—	—	—	—	—	3,984	3,304
503	Lead concentrate	183,224	—	183,598	—	—	21,213	—	n.p.	2,932
536	Lead-copper concentrate	—	—	—	—	—	5,293	n.p.	n.p.	405,917
537	Lead ore	—	—	2,782	—	—	—	—	5,293	6,389
538	Lead-zinc concentrate	10,026	—	—	n.p.	—	—	—	n.p.	8,288
546	Lead-zinc concentrate	15,029	—	9,988	—	—	—	—	10,026	11
548	Other metallic minerals	223	—	—	—	—	4,401	—	30,088	10,058
579	Other metallic minerals	—	—	—	—	—	—	—	223	27,370
	Total	213,154	—	196,368	n.p.	—	30,907	n.p.	n.p.	n.a.
	IRON ('000 tonnes)									
	MANGANESE (tonnes)									
563	Manganese ore—	—	—	—	—	—	—	—	n.p.	n.a.
564	Metallurgical grade	—	—	—	—	—	—	n.p.	n.p.	582,468
543	Zinc concentrate	4,025	—	—	—	—	259	n.p.	4,284	5,451
	Total	4,025	—	—	—	—	259	n.p.	n.p.	587,919
	MOLYBDENUM (kg)									
567	Molybdenum concentrate	—	—	—	—	—	19,910	—	19,910	10,215
	MOLYBDENUM (kg)									
524	Monazite concentrate	445	—	251	—	14,511	—	—	15,207	10,536
	MONAZITE (tonnes)									
532	Nickel concentrate	—	—	—	—	59,842	—	—	59,842	58,643
533	Nickel ore	—	—	15,928	—	—	—	—	15,928	50,321
	Total	—	—	15,928	—	59,842	—	—	24,302	31,103
	NICKEL (tonnes)								75,770	82,945
532	Nickel concentrate	—	—	—	—	506	—	—	506	461
	PALLADIUM (kg)									
532	Nickel concentrate	—	—	—	—	—	—	—	—	360
	PALLADIUM (kg)									
532	Nickel concentrate	—	—	—	—	71	—	—	71	55
	PLATINUM (kg)									
	SILVER (kg)									
502	Copper concentrate	14,817	—	21,259	—	25,005	4,814	n.p.	n.p.	64,255
503	Copper ore	—	—	194	—	—	—	—	184	234
509	Gold bullion	24	5	648	—	4,611	—	n.p.	n.p.	2,518
511	Gold concentrate	—	—	41	—	—	—	—	41	24
512	Other gold	—	—	—	—	—	—	—	—	—
536	Lead-copper concentrate	222,075	—	457,430	—	—	24,213	n.p.	n.p.	650,537
537	Lead ore	—	—	—	—	—	50,746	n.p.	n.p.	38,095
546	Lead-zinc concentrate	—	—	—	10	—	—	—	10	17,606
532	Lead-zinc concentrate	19,525	—	—	—	—	—	—	19,525	24,915
532	Nickel concentrate	—	—	—	—	370	—	—	370	369
542	Silver ore	—	—	—	n.a.	—	—	—	n.a.	—
543	Zinc concentrate	47,013	—	43,094	—	5,868	10,306	—	106,281	95,767
579	Other metallic minerals	857	—	—	—	—	—	—	857	n.a.
	Total	304,311	5	522,666	10	35,854	91,079	n.p.	n.p.	887,569

(b) Commodity codes 513,514,515.

CONTENTS OF METALLIC MINERALS PRODUCED—continued

Commodity code	Mineral in which contained	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Australia	
									1983-84	1981-82
CONTENTS OF METALLIC MINERALS PRODUCED IN AUSTRALIA										
SULPHUR (tonnes)										
535	Lead concentrate	47,096	—	—	—	—	6,422	—	53,518	n.p.
536	Lead-copper concentrate	—	—	—	—	—	5,650	—	5,650	n.p.
546	Lead-zinc concentrate	8,830	—	—	—	—	8,830	—	9,072	n.p.
543	Zinc concentrate	164,187	—	112,777	—	—	42	—	277,006	n.p.
579	Other metallic minerals	90	—	—	—	—	—	—	90	—
Total		228,203	—	112,777	—	—	12,114	—	345,094	n.p.
TANTALITE (kg) n.p.										
TANTALITE-COLUMBITE (Ta ₂ O ₅ + Nb ₂ O ₅) (kg/c)										
570	Tantalite-columbite concentrate	—	—	—	—	50,013	—	—	50,013	78,975
TIN (tonnes)										
549	Tin concentrate	1,388	—	(d) 1,975	—	460	4,835	—	8,658	10,608
550	Tin-copper concentrate	—	—	—	—	—	n.p.	—	n.p.	n.p.
551	Tin-tantalite concentrate	—	—	—	—	—	—	n.p.	n.p.	40
Total		1,388	—	1,975	—	460	n.p.	n.p.	8,688	12,750
TITANIUM DIOXIDE (TiO ₂) (tonnes)										
522	Ilmenite concentrate	7,552	—	—	580,514	—	—	—	588,066	529,031
523	Leucoxene concentrate	33,840	—	—	13,954	—	—	—	13,954	18,330
525	Rutile concentrate	—	—	72,999	49,374	—	—	—	156,213	n.p.
Total		41,392	—	72,999	643,842	—	—	—	758,233	n.p.
TUNGSTIC OXIDE (WO ₃) (units of 10 kg)										
571	Scheelite concentrate	—	—	10,635	—	—	119,473	—	130,108	169,609
549	Tin concentrate	—	—	5,779	—	—	—	—	5,779	n.p.
573	Wolfram concentrate	35	—	103,314	—	—	—	—	103,349	n.p.
Total		35	—	119,728	—	—	119,473	—	239,236	n.p.
URANIUM OXIDE (U ₃ O ₈) (tonnes)										
575	Uranium concentrate	—	—	—	—	—	—	n.p.	n.p.	4,975
YTTRIUM OXIDE (Y ₂ O ₃) (kg)										
528	Xenotime concentrate	—	—	—	15,060	—	—	—	15,060	n.p.
ZINC (tonnes)										
502	Copper concentrate	5,910	—	—	—	—	—	—	5,910	5,241
535	Lead concentrate	17,476	—	27,298	—	—	4,295	—	49,069	n.p.
536	Lead-copper concentrate	—	—	—	—	—	2,960	—	2,960	3,835
546	Lead-zinc concentrate	11,086	—	—	—	—	—	—	11,086	12,841
543	Zinc concentrate	296,430	—	184,636	—	30,817	68,221	—	580,104	n.p.
544	Zinc ore	—	—	—	n.p.	—	—	—	n.p.	—
579	Other metallic minerals	38	—	—	—	—	—	—	38	—
Total		330,940	—	211,934	n.p.	30,817	75,476	—	n.p.	623,904
ZIRCONIUM DIOXIDE (ZrO ₂) (tonnes)										
529	Zircon concentrate	39,770	—	43,088	—	192,295	—	—	275,153	266,365

(c) Includes a small amount of Tantalite-Columbite contained in tin concentrate. (d) Includes some wolfram — tin concentrate.

(c) Includes a small amount of Tantalite-Columbite contained in tin concentrate. (d) Includes some wolfram — tin concentrate.

ANNEX Q(1) TO PART ONE
AUSTRALIAN MANUFACTURING AND MINING INDUSTRIES:
QUANTITY PRODUCED 1978-1983

Product	Unit	1978-79	1979-80	1980-81*	1981-82*	1982-83*
<u>Motor vehicles</u>						
<u>(finished)</u>						
Cars	No.	298,046	321,997	244,597	285,387	293,805
Station Wagons		58,532	77,291	72,432	88,432	69,284
Utilities		19,832	18,795		19,271	15,392
Panel Vans		14,492	10,449	24,840		
Trucks and truck-type vehicles		8,686	8,603	21,715	20,773	16,270
Total vehicles:		399,588	437,135	363,584	413,863	394,751
=====						
<u>Iron and Steel</u>	'000 tonnes					
Pig iron		7,349	7,481	7,335	6,606	4,990
Steel Ingots		7,431	7,374	7,012	7,260	5,392
Blooms and Slabs		6,635	6,526	6,179	5,438	3,750
Total Iron and Steel:		21,415	21,381	20,526	19,304	14,132
=====						
Electricity Generated	mil.kWh	90,857	95,910	100,782	104,975	105,933
=====						

Note: * Includes partly finished vehicles.

Source: Cameron R.J., Australian Statistician,
Year Book, Australia 1981 and Year Book, Australia 1983,
Year Book, Australia 1985,
(AGPS, Canberra 1981, 1983 and 1985).

C. FUEL RESOURCES AND STOCKPILES

Stockpiling *

The independence of the Australian Defence Force (ADF) is limited entirely to the level of on-base fuel stocks held by the Services at any one time. During refinery, transport or other supply disruptions, the States do not and are under no obligation to consider the fuel needs of the service establishments located throughout the country. In fact the States have been quick to point out, through the National Petroleum Advisory Committee (NPAC), that defence stocks should be made available to the civil community in time of its need. If defence stocks amounted to a year's needs, they would power the civil community for about four days. It is, however, quite possible that a fuel crisis could coincide with a period of international tension (it could be the cause of the tension) which demanded a significantly higher level of defence activity. Unless the fuel needed for this activity were available from within its own resources, the ADF could be hamstrung.

In 1979, when refinery unrest reached an all-time high, the ADF's normal aircraft and vehicle activities were almost halted within a matter of days. The Fleet was better off as appreciable war vintage tankage was available, but even in 1979 a considerable degree of care was being exercised by the Fleet programmers. Arising from these serious shortcomings a number of plans have been implemented, all aiming for a significant increase in stockholding capacities.

If they were left to stand, Avgas, motor spirit and Avtur would generally retain their properties for at least a year. The heavy residual fuels (FFO) and to a lesser extent dieso will maintain their burning properties at least two years. In view of this, and in the absence of the amended legislation requiring all dealers in petroleum products to hold stocks when directed, it is the responsibility of the ADF to hold its own stocks sufficient for at least one year's normal operations.

There are a number of precedents for ensuring that available capacity is adequate for a year's stocks; none the least are the experiences of Britain, Germany and Japan in the Second World War. Faced with its own contingency, Australia's defence forces would have nearly six months' auto operations for the Navy and Air Force and something less for the Army, depending on the level of military involvement. In a protracted situation this would allow time for alternative supplies to be made available.

National Fuel Storage Capacity**

Queensland

Brisbane Metropolitan Area. There are 12 civilian fuel terminals/refineries with a storage capacity of over one million tonnes. All POL products are available but not necessarily from each terminal. All have the ability to pack fuel although output is limited to 200 drums per terminal per day.

*Source: Speedy, I.M., Oil and Australia's Security - The Future Fuel Requirements of the Australian Defence Force, (Strategic and Defence Studies Centre, ANU, Canberra, 1982).

**Source: Headquarters, Army Logistic Command, Handbook - LOGEX 1983, Melbourne 1983.

Other Major Terminals:

a	Townsville	250,000 tonnes.
b	Gladstone	102,000 tonnes.
c	Cairns	70,000 tonnes.
d	Mackay	70,000 tonnes.
e	Weipa	28,000 tonnes (no KERO).
f	Bundaberg	27,000 tonnes (no AVGAS or KERO).
g	Port Alma	11,000 tonnes (no AVGAS, AVTUR or KERO).
h	Urangan	10,000 tonnes (no AVGAS, AVTUR or KERO).
i	Karumba	9,000 tonnes (DIESO only).
j	Thursday Island	7,000 tonnes (DIESO only).

New South Wales

The proportion of petroleum product bulk storage capacity, relative to usage in NSW, is the lowest in Australia except for Tasmania and the Northern Territory. Current storage capacity for crude oil in NSW is approximately 580,000 kilolitres (about 15 days' supply) and, if run dry, would take approximately nine ships (each 65,000 kilolitres) to replenish. Storage capacity for gasoline and distillate of petroleum products in NSW totals approximately 823,000 kilolitres. This includes 753,000 kilolitres at the seaboard terminals and refineries, and a total of 70,000 kilolitres at substantial country depots (see Table 8). This represents approximately 20 days' supply of gasoline and 36 days' supply of dieso. However, average holding is only 14 days' supply of gasoline and 21 days' supply of automotive diesel oil.

Storage Capacity of Gasoline and Distillate
(megalitres)

Over 5 ML		3-5 ML	2-3 ML
Sydney	(550Ml)	Broken Hill	Armidale
Newcastle	(132Ml)	Grafton	Lismore
Port Kembla	(61Ml)	Moree	Glen Innes
Trial Bay	(35Ml)	Orange	Inverell
Eden	(25Ml)	Canberra/Queenbeyan	Narrabri
Tamworth	(5Ml)		Gunnedah
Dubbo	(5Ml)		Coonabarabran
			Parkes
			Taree
			West Wyalong
			Goulburn
			Cootamundra
			Cooma
			Griffith
			Wagga Wagga
			Young

Victoria

Seaboard storage and distribution points are located at Portland, Geelong, Altona, Crib Point, and Long Island Point.

Storage Capacity. Storage capacity currently available is sufficient to provide 100 days' domestic consumption but average holdings are normally restricted to 53 days. An additional 15 days' stock is available in the network of depots, agencies and service stations throughout the State. The Army maintains significant stocks of ground fuels and lubricants at Puckapunyal. Navy stock of ships bunkering oils are located at Western Port and RAAF stocks of aviation products are held at East Sale and Laverton.

South Australia

South Australia's only refinery is located at Port Stanvac, 20 km south of Adelaide. Crude oil is shipped via tanker from the supplier. A pipeline connects Port Stanvac to Port Adelaide (Birkenhead) fuel storage areas which are capable of holding 141 million litres. This is enough to provide for South Australia's domestic use for 4-5 weeks. South Australian country centres have small bulk storage facilities.

Army fuel (total capacity around 130,000 litres) is held at 41 Supply Battalion, Hampstead with smaller bulk storage tanks at Woodside, El Alamein, Keswick, Murray Bridge and Port Wakeland.

Western Australia

The major fuel installations (capacities shown in megalitres) are: Kwinana (905); North Fremantle (330) - major depot for all petroleum companies; Kewdale (30) - supplies airport and island areas from rail/road head; Albany (58), Bunbury (51), Geraldton (40), Esperance (36), Port Hedland (90), Broome (10.5), Wyndham (9.2), Carnarvon (13), Derby (5) and Cape Lambert (6). These locations are all major seaboard ports. Fuel is moved inland by truck or rail as required. Petroleum companies cooperate and draw from each other's resources in areas where they do not maintain facilities themselves.

State Government emergency reserves of Motor Spirit Super and Distillate exist in the Perth metropolitan area and are designed to provide for essential services for up to two months.

Tasmania

Storage capacity (expressed in kilolitres) is as follows:

Location	Motor Spirit	Aviation Fuel	Kerosene	Distillate
Hobart	34,926	3,330	6,040	56,683
Bell Bay	24,455	804	2,931	13,466
Davonport	6,716		855	27
Burnie	87			80

Northern Territory

All bulk fuels are brought into the Northern Region by sea transport from Western Australia or overseas, while the Southern Areas are supplied by road and rail from Adelaide. Major storage capacities are as follows:

Location	Motor Spirit (tonnes)	Distil- late (tonnes)	Fuel Oil (tonnes)	Aviation Turbine (tonnes)	Aviation Gas (tonnes)
Darwin	14,875	60,929	37,720	28,372	3,640
Alice Springs	500	520	-	500	112
Katherine	90	185	-	-	17
Tennant Creek	160	114	-	54	817
Gove	3,400	5,000	60,000	1,500	24
Groote Eylandt	300	4,300	-	1,500	5

D AUSTRALIA'S TRANSPORT RESOURCES

Introduction*

Ships, aircraft, trucks and railway rolling stock form only a part of the nation's transport resources. Of equal importance is the network of roads and railway tracks, as well as the ports and airfields. To these must be added the related storage, loading and docking facilities, and associated ground handling equipment, whether it be of a fixed or mobile nature. In turn, all these areas of activity need a skilled workforce in support, together with a well integrated organisation within which to operate. In total, these various parts make up a very diversified pool of transport assets.

The transport resources of Australia have, in general, developed along State lines to meet State interests. This is particularly true of road and rail networks, and the development of ports. It was only at a later stage that these systems were extended to link together the various State systems of surface transport. Even then, State interests remained paramount, and decisions continued to be made on an individual basis. Primarily because of the safety aspect, there was some early degree of consultation in regard to shipping.

On the other hand, the development of aviation, while also having its origin on a State basis, quite soon became an interstate or national facility. By its very nature it was in no way restrained by State or even international boundaries, and it soon became obvious that some form of national control would be needed. As early as 1920, a Federal Act was passed enabling the Commonwealth Government to make regulations regarding the safety and navigation of aircraft, and a Civil Aviation Branch of the Department of Defence was formed to administer the legislation. However, the power of the Commonwealth was at once challenged by the States, and defied by many individual operators. It was not until 1936 that a limited Commonwealth authority was upheld by the High Court and full authority was granted through enabling legislation passed by all the States in 1937. Nevertheless, the development of air transport in Australia has generally taken place on a Federal rather than a State basis, and this difference has a most significant impact on defence planning.

*Source: Garrisson, D.D., Civilian Transport in the Defence Role, Legislative Research Service, Discussion Paper No.3 1985 (AGPS Canberra 1985).

Resources

The following elements of our transport resources are dealt with below:

1. Shipping
2. Railways
3. Roads and Road Transport
4. Civil Aviation

1. Shipping*

Capabilities. Port and marine infrastructure in Australia has been established as a result of the need for commercial trading. Despite the fact that the northern Australian coast is sparsely populated, there are major port facilities about every 300-400 kilometres from Cairns to Geraldton, with the exception of the Gulf of Carpentaria. Major improvements have been made in recent times at the port of Darwin. Hitherto, defence considerations have been only marginally taken into account when planning port facilities in Australia.

Constraints. Perhaps the major constraint in defence terms inherent in sea transport is the increasingly specialised nature of Australia's shipping fleet, particularly in the coastal trade. Federal shipping policy is aimed at the development of an efficient national fleet which implies technical and coast competitiveness, with bulk trade the sector most likely to achieve these objectives. Bulk shipping may not be particularly well suited to direct defence applications.

A further constraint applies to Australia's major coastal mineral trades, which in the case of iron ore and bauxite involve lengthy voyages in northern waters from ports which may be susceptible to enemy blockages to entry/exit channels.

Australia's Trading Fleet. Australia's trading fleet consists of 104 vessels over 150 gross tonnes (gt). Seventy four of these are involved in coastal trades, while some of the 30 overseas trading vessels would be some distance from Australia at any one time.

This fleet is a mixture of vessels designed to meet the requirements of the commercial organisations operating them. For example 26 are between 150-5,000 gt, 13 of 5,000-10,000 gt, 32 of 10,000-20,000 gt, 19 of 20,000-50,000 gt and 14 over 50,000 gt. Forty three of the vessels are bulk carriers, 17 are tankers and 44 are general cargo vessels (19 of which have ro-ro facilities). The capabilities of this fleet to move military personnel and equipment would depend on requirements but are obviously significant if allocated solely to this task. Even if the normal commercial trading of these vessels could not be postponed indefinitely, it is likely that vessels could be made available for a once only large movement of military personnel and equipment, particularly in current economic circumstances where about 10 vessels are laid up.

*Source: Cosgrove, K.J., Department of Transport, 'Transport: Capabilities and Constraints', Paper presented at a conference on The Civil Infrastructure in the Defence of Australia, 28 November-2 December, 1983, conducted by the Strategic and Defence Studies Centre, Australian National University.

In addition to the trading fleet there are some 240 tugs, 60 off-shore support vessels, dredging equipment, fishing vessels and passenger ferries to supplement its cargo carrying equipment. Full details of these vessels are available in the Department's annual publication Australian Shipping. A summary of the trading fleet is set out in the table in Annex R. Even though the Australian vessels suited to a defence task are not numerous, it is worth noting the availability of skilled civilian manpower. Some of these personnel could be utilised by defence in certain contingencies.

2. Railways*

Capabilities. One of the lessons from World War II was that the individual State, not surprisingly, had a pre-occupation with intrasystem traffic. The War pointed up the gross inefficiency of these arrangements for national purposes. The result was renewed interest in standardisation of gauges, particularly on the major inter-city lines.

The Department of Transport has undertaken considerable work towards the preparation of a guide to rail transport of military equipment and supplies in Australia. Factors involved in such an examination are allowable train loads and speeds, availability of locomotives and rolling stock, carrying capabilities and interchange of rolling stock, gross mass limits, movement of armour, containers, piggyback, obstacles, ramp specifications and out-of-gauge loading limits for various lines.

Track capacity is not easy to estimate. It depends on such factors as operating philosophies of the individual rail systems, track speed capabilities, signalling systems, and looping configurations. Track capacity for military purposes depends also on the civilian/military traffic mix which in turn is dependent upon the extent of the defence emergency.

In recent years there have been encouraging developments in all aspects of track capacity. Rail systems have been working together to harmonise their operating philosophies, a recent example being through running of locomotives on certain passenger and freight trains. Progress has also been made on mainline upgrading with State programs supplemented by Commonwealth financial assistance.

Rolling stock quality and availability is standard for rolling stock being used in Australia-wide intersystem traffic.

Constraints. In the past the major constraint on railways' performance in long distance haulage was the 'break of gauge' problem. In addition to standardisation works, bogie exchange centres have received close attention. Lessons have been learnt and the benefits are shown in the design of the new exchange centre in Adelaide at Islington.

At the present time, there is no standard gauge access to the ports of Brisbane, Melbourne and Geelong. By agreement between the Commonwealth and States, the Bureau of Transport Economics is currently evaluating proposals for providing these links. The Victorian Government has already announced a commitment to provide standard gauge access to Melbourne's port.

*Source: Cosgrove, K.J., Department of Transport, 'Transport: Capabilities and Constraints', Paper presented at a conference on The Civil Infrastructure in the Defence of Australia, 28 November-2 December 1983, conducted by the Strategic and Defence Studies Centre, Australian National University.

More generally, there are sectors where bottlenecks can occur in high traffic periods. It has been suggested that this could become the case between Sydney and Brisbane. Replacement of hundreds of timber bridges which are subject to speed and load limits is underway and Centralised Traffic Control is being extended in order to increase capacity on the single track north of Telarah. Despite these improvements, the constraints of terrain on train speeds and difficulties associated with the imbalance between north and southbound traffic will continue.

Australian Railways are not without their clearance problems. Clearances in eastern Australia are insufficient to permit piggyback carriage of full-sized pantechincons on ordinary rail flat wagons. Such movements can and are accommodated on the Australian National standard gauge system and in New South Wales, west of Parkes.

Another constraint at the present time relates to coordination arrangements between the rail systems and defence. Moreover, current consultation and liaison between the individual rail systems and the Defence Force is normally carried out on an officer to officer basis mainly in relation to specific problems. Informal processes can of course, come unstuck if the officer on either side does not carry an appropriate level of authority for strategic planning.

Government Railway Systems. The map at Annex S shows the condition of Australian Railway System Mainlines as at February 1986. The table at Annex T shows the route/kilometres open by gauge and system of each the Government Railways. The table at Annex U shows the rolling stock included in the capital account of each Government Railway.

3. Roads and Road Transport*

Capabilities. World War II saw the rapid development of Australia's arterial road system, particularly in northern Australia. Commonwealth assistance to the States had commenced in 1922 and was intensified after the war. A beef roads program for Northern Australia commenced in 1949 and grants were also made at various times for maintenance of certain roads designated as 'strategic' - for example, the Eyre Highway in South and Western Australia and the Barkly Highway in Queensland.

One of the Commonwealth's priorities is an adequate system of National Highways. A stated function of National Highways is to assist in the mobility of defence forces and their supplies and equipment. Current programs to upgrade roads in northern Australia have emphasis on sealing unsealed sections and improving flood immunity.

Improvements in highways between Australia's capital cities have been significant. Dual carriageway construction standards have meant considerable time and fuel savings for heavy trucks - an example in recent years being the new Campbelltown-Yanderra section of the Sydney-Melbourne National Highway which by-passes the well-known Razorback location on the Hume Highway.

*Source: Cosgrove, K.J., Department of Transport, 'Transport: Capabilities and Constraints', Paper presented at a conference on The Civil Infrastructure in the Defence of Australia, 28 November-2 December 1983, conducted by the Strategic and Defence Studies Centre, Australian National University.

The potential capacity of the road transport industry is indicated by the following categories of road transport vehicles on register at 30 September 1982 by State (in thousands):

MOTOR VEHICLE CENSUS: 30 SEPTEMBER 1982 (FINAL)
(in thousands)

State or Territory	Motor cars and station wagons	Utili- ties	Panel vans	Trucks		Other truck type vehicles	Buses	Motor cycles	Total (a)
				Rigid	Articu- lated				
New South Wales	2,070.4	158.4	161.7	155.2	16.1	11.9	15.9	118.5	2,708.1
Victoria	1,700.7	118.5	55.2	146.9	11.5	11.4	11.4	71.7	2,127.2
Queensland	1,005.3	190.5	77.0	55.1	8.6	4.5	7.3	91.8	1,440.0
South Australia	580.4	43.5	28.0	41.5	4.4	5.7	3.6	36.8	744.0
Western Australia	561.3	59.0	53.8	59.6	4.3	6.0	4.9	34.6	783.4
Tasmania	188.1	21.2	11.9	12.8	1.4	1.7	2.1	5.1	244.3
Northern Territory	34.5	12.0	4.3	4.5	0.8	0.2	0.6	4.0	60.9
Australian Capital Territory	92.6	4.5	3.4	3.5	0.2	0.6	0.5	4.4	109.7
Australia	6,233.4	607.6	395.3	479.0	47.2	42.0	46.2	366.9	8,217.7

(a) = Excludes tractors, plant and equipment, caravans and trailers.

It is not known precisely how many owner-drivers there are in the trucking sector, but estimates place the number between 35,000 and 50,000, most of whom are local operators. However the long distance segment of the market is dominated by the estimated 10,000 owner-drivers in this area.

Together with improvements in the road system, there have been quite rapid developments in the road transport industry. The last energy upheaval in 1979/80 saw the introduction of more fuel efficient equipment, while road trains of approximately 100 tonnes capacity are in use on northern transport routes. The trucking industry's major advantage over rail is its flexibility, not only in terms of route alternatives but also because of the relatively short economic lives of trucks which enables a fairly rapid turnover and improvement of the vehicle stock compared with rail. Of all modes, it has the best individual unit manoeuvrability.

Another feature of the road transport industry is the existence of large companies with considerable expertise in management of large truck fleets, and in particular the coordination of large numbers of sub-contractors. It is logical and appropriate that this capability be available for defence use. In this context, Sir Peter Abeles of Thomas Nationwide Transport made two significant offers at a seminar in Sydney in October 1983. One was to encourage interchange of personnel between transport industry and the Services, while the other was to participate in the formation of a defence-transport liaison committee. In respect to the second, a committee known as the Defence Movement Co-ordinating Committee already exists.

Constraints. Perhaps the major constraint operating on the road system is its sheer size in relation to the relatively scarce resources available for improvement. This point can be illustrated by reference to National Highways. The following deficiencies provide examples:

- a sealed highway on a new alignment is under construction between Newman and Port Hedland (416 km); completion by 1988/89
- reconstruction and sealing between Fitzroy Crossing and Halls Creek (223 km); completion by 1987/88
- 579 km or 63 per cent of the Stuart Highway in South Australia is unsealed and in poor condition; sealing due for completion by late 1986
- some 200 km of the Landsborough Highway between Brisbane and the Northern Territory border is unsealed; sealing due for completion in 1988
- on the Bruce Highway, many old, narrow bridges are in need of replacement and long lengths of narrow, weak, flood-prone pavements need to be upgraded. The work to upgrade and seal these sections is expected to be completed by the early 1990s.

At present there are restrictions on the areas where road trains can be utilised. A further general constraint on road operations is the existence of axle load limits in order to protect roads from inordinate damage. It would, of course, be possible to relax those restrictions in an emergency but only at a cost in terms of road damage and disruption of other road traffic.

Proclaimed or Declared Roads. The table in Annex V is a summary of the roads proclaimed or declared under the Acts of the several States relative to the operations of the central road authorities, and shows the lengths of various classes proclaimed or declared as at 30 June 1983. The central road authority in each State assumes responsibility under the Act for the whole, or a proportion, of the cost of construction and/or maintenance of

these roads, the extent varying from State to State and with the class and locality of the roads. Before proclamation of a main road, consideration is given, in general, to the following points: availability of funds; whether the road is, or will be, within one of several classes of main trunk routes; the value of the roads as connecting links between centres of population or business; whether the district is, or will be, sufficiently served by railways. Provision is also made in some States for the declaration of roads other than main roads. The absence of a particular class in any State does not necessarily imply that there are no roads within the State that might be so classified; the classes are restricted only to roads proclaimed under the Acts. A further point to make is that, through various causes (e.g. insufficiency of funds, manpower or materials) construction or maintenance may not keep pace with gazettal of roads, and, therefore, the condition of a road may not match its status.

Total Roads. The table in Annex W represents an attempt to classify all the roads open for general traffic in Australia, at the latest dates available, according to States and Territories and to certain broad surface groups. The figures in the table for the States are obtained from the Deputy Commonwealth Statistician in each State, and derived mainly from local government sources. The map in Annex X shows the condition of Australian National Highways as at June 1985.

4. Civil Aviation*

The size, demographic character, and geographic location of Australia make it inevitable that aviation has a crucial and diverse role in providing transport links. This role stems from two important characteristics. First, and most obvious, is its time saving over other transport modes. The second is its operating flexibility, particularly in outback areas where surface transport infrastructure may be less well developed. This importance is highlighted during flood conditions, when aviation often becomes the only transport link for outback communities, and in the times of State or national emergencies.

The history of the aviation industry in Australia shows that it has responded well in the challenges it faced. Domestic aviation services have developed greatly over the past 70 years, often at a faster growth rate than either our economy or population. This growth is particularly a reflection of the industry's rapid technological change.

The growth of international services in the last thirty years has been equally spectacular. The distance factor, in combination with technological developments which first brought jet travel and then aircraft of several hundred seat capacity, has been largely responsible for the present dominance of aviation in passenger travel to and from Australia. In 1983, the aviation components of international passenger movements into and out of Australia stood at 99.4 per cent. This compares with 94 per cent in 1973, 62 per cent in 1963 and 33 per cent in 1953. Air passenger movements increased at an average annual rate of 13.8 per cent over these three decades to over 4.5 million in 1983.

The following tables in Annexes Y and Z provide details of civil aircraft in use in Australia as at 30 June 1985:

- Composition of Airline Fleets
- Aircraft on Register - by Manufacture and Type.

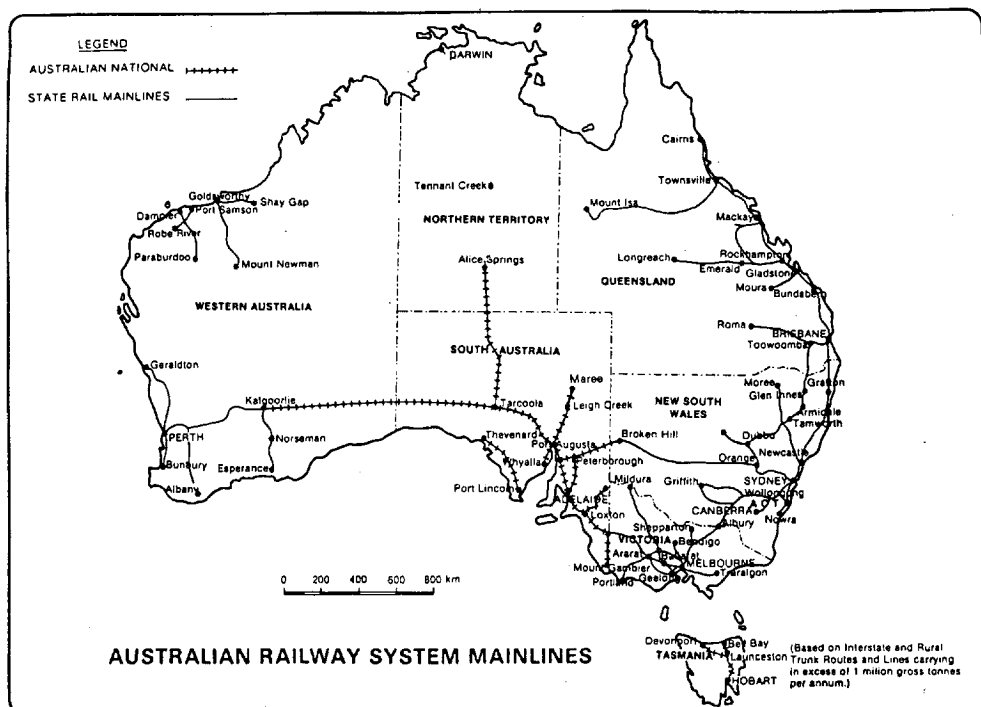
*Source: Department of Aviation, Annual Report 1985 (AGPS, Canberra, 1985).

ANNEX R TO PART ONE
AUSTRALIAN TRADING VESSELS OF 150 GROSS TONS OR MORE
30 JUNE 1983

Vessels	Number	DWT	Gross tons
<u>Intrastate</u>			
Australian owned, Australian registered	17	307,121	203,143
Intrastate fleet	17	307,121	203,143
<u>Interstate</u>			
Australian owned, Australian registered	44	1,076,849	687,715
Overseas owned, Australian registered	8	132,940	92,354
Overseas owned, overseas registered	5	299,119	163,293
Interstate fleet	57	1,508,908	943,362
Coastal fleet	74	1,816,029	1,146,505
<u>Overseas</u>			
Australian owned, Australian registered	18	648,115	426,522
Overseas owned, Australian registered	5	589,541	351,764
Overseas owned, overseas registered	7	255,306	145,751
Overseas Fleet	30	1,462,962	924,037
Total Australian fleet	104	3,278,991	2,070,542

Source: Cameron, R.J., Australian Statistician, Year Book, Australia 1985, (AGPS, Canberra, 1985).

**ANNEX S TO PART ONE
AUSTRALIAN RAILWAY SYSTEM MAINLINES -
CONDITION AS AT FEBRUARY 1986**



Source: Department of Transport, February 1986.

ANNEX T TO PART ONE
GOVERNMENT RAILWAYS ROUTE-KILOMETRES OPEN,
BY GAUGE AND SYSTEM 30 JUNE 1983
(kilometres)

System	Gauge				Total
	1600 mm	1435 mm	1067 mm	Dual (a)	
New South Wales	..	(b)9,883	..	..	(b)9,883
Victoria	(c)5,490	313	..	12	5,815
Queensland	..	(d)111	9,868	..	9,979
South Australia	131	..	..	..	131
Western Australia	..	1,226	4,226	158	5,610
Australian National	2,198	3,636	1,813	..	7,647
Australia	7,819	15,169	15,907	170	39,065

(a) VR operates a 1600 mm/1435 mm dual gauge line and WAGR operates a 1435 mm/1067 mm dual gauge line. (b) Includes 469 kilometres which are electrified. (c) Includes 328 kilometres of 1600 mm gauge line operating in New South Wales. Includes 417 route-kilometres which are electrified. (d) Operated by the State Rail Authority of New South Wales which is reimbursed for the cost of operations.

Source: Cameron, R.J., Australian Statistician, Year Book, Australia 1985, (AGPS, Canberra, 1985).

ANNEX U TO PART ONE
GOVERNMENT RAILWAYS: ROLLING STOCK(a)
INCLUDED IN CAPITAL ACCOUNT
(number)

System and date	Locomotives				Coaching stock	Goods stock	Service stock
	Diesel-electric	Electric	Other(b)	Total			
30 June 1983							
New South Wales	473	53	80	606	2,713	9,728	1,427
Victoria	256	28	24	308	1,619	11,569	967
Queensland	527	..	77	604	1,270	22,266	2,568
South Australia	2	..	4	6	197	..	12
Western Australia	170	..	17	187	324	8,738	487
Australian National	273	..	13	286	391	9,853	1,291
Australia	1,701	81	215	1,997	6,514	62,154	6,752
30 June—							
1982	1,678	80	223	1,981	5,063	65,222	7,039
1981	1,722	82	193	1,997	5,036	66,386	7,201
1980	1,727	81	185	1,993	5,121	67,685	7,228
1979	1,695	74	203	1,972	5,055	67,163	7,192
1978	1,674	74	194	1,942	6,872	71,043	7,225

(a) Excludes jointly-owned stock.

(b) Includes non-passenger-carrying diesel power vans and steam locomotives.

Source: Cameron, R.J., Australian Statistician, Year Book, Australia 1985, (AGPS, Canberra, 1985).

ANNEX V TO PART ONE
PROCLAIMED OR DECLARED ROADS: LENGTHS, STATES, 30 JUNE 1983
(kilometres)

<i>Class of road</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>Total</i>
State Highways and Freeways	10,503	7,544	10,344		7,739	1,946	38,076
Trunk roads	7,098		149	13,421			20,668
Ordinary main roads	18,358	14,852	8,589		7,482	1,290	50,571
<i>Total main roads</i>	<i>35,959</i>	<i>22,396</i>	<i>19,082</i>	<i>13,421</i>	<i>15,221</i>	<i>3,236</i>	<i>109,315</i>
Secondary roads	(a) 299	-	13,019	-	8,740	282	22,340
Development roads	3,474	-	8,046	-	-	45	11,565
Tourist roads	445	797	-	-	-	172	1,414
Other roads	2,511	(b) 1,013	-	-	-	-	3,524
<i>Total other roads</i>	<i>6,729</i>	<i>1,810</i>	<i>21,065</i>	<i>-</i>	<i>8,740</i>	<i>499</i>	<i>38,843</i>
Grand total	42,688	24,206	40,147	13,421	23,961	3,735	148,158

(a) Metropolitan only.

(b) Forest roads.

Total roads. The following table represents an attempt to classify all the roads open for general traffic in Australia, at the latest dates available, according to States and Territories and to certain broad surface groups. The figures in the table for the States are obtained from the Deputy Commonwealth Statistician in each State, and are derived mainly from local government sources.

Source: Cameron, R.J., Australian Statistician, Year Book, Australia 1985, (AGPS, Canberra, 1985).

ANNEX W TO PART ONE
ALL ROADS OPEN FOR GENERAL TRAFFIC LENGTHS, STATES AND TERRITORIES,
30 JUNE 1983
(kilometres)

<i>Surface of roads</i>	<i>N.S.W.(a)(b)</i>	<i>Vic.(c)</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.(d)</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Total (a)</i>
Bitumen or concrete	73,247	63,985	50,363	21,767	37,760	8,444	5,289	2,042	262,897
Gravel, crushed stone or other improved sur- face	64,899	47,470	35,474		37,078	13,180	5,350	105	203,556
Formed only	36,155	23,403	56,345	80,633	43,355	373	4,814	-	245,078
Cleared only	20,805	21,857	21,217		21,218	213	4,727	-	90,037
Total	195,127	156,715	163,399	102,400	139,411	22,210	20,180	2,147	801,589

(a) Excludes road designated but not trafficable. Excludes Lord Howe Island and the unincorporated area of the Western Division.
(b) Figures as at 31 December 1982. (c) Excludes roads coming under the responsibility of the State Electricity Commission (38 km), Mel-
bourne and Metropolitan Board of Works (32 km) and Forests Commission (39,656 km). (d) Excludes Forests Department roads.

Source: Cameron, R.J., Australian Statistician, Year Book, Australia 1985, (AGPS, Canberra, 1985).

**ANNEX X TO PART ONE
AUSTRALIAN NATIONAL HIGHWAYS -
CONDITIONS AS AT 30 JUNE 1985**



Source: Department of Transport, Annual Report, 1984-85
(AGPS, Canberra 1985).

ANNEX Y TO PART ONE
COMPOSITION OF AIRLINE FLEETS (AS AT 30 JUNE 1985)

Aircraft Type	Qantas	TAA	Ansett ^a	ANA ^b	ANSW ^b	ASA ^c	AWA ^c	AIRQ	EWA	IPEC	Industry Total
B747-338	3										3
B747-238B	16										16
B747-M	3										3
B747-SP	2										2
A300		4									4
B767-200			5								5
B727-200		13	13								26
B737-200			12								12
DC9		9								1	10
BAe 146							2				2
Argosy										3	3
F28-4000					2		2		4		6
F28-1000					7	4	5				7
F27 Series		3	4					4	7		29
Total	24	29	34	—	9	4	9	4	11	4	128

a. Aircraft leased overseas are not included.

b. An operating division of Ansett Transport Industries (Operations) Pty Ltd.

c. Airlines of Northern Australia aircraft are transferred from Ansett (B737, F27) and AWA (F28) on a user requirement basis.

Source: Department of Aviation, Annual Report, 1985
(AGPS, Canberra 1985).

ANNEX Z TO PART ONE
AIRCRAFT ON REGISTER - BY MANUFACTURER AND TYPE
(AS AT 30 JUNE 1985)

Source: Department of Aviation, Annual Report 1984-85
(AGPS, Canberra 1985).

Manufacturers and Aircraft Type	No. of each type	Manufacturers and Aircraft Type	No. of each type
<i>Ace Aircraft Manufacturing Co Corben Baby Ace</i>	1	<i>Air Tractor Inc AT301 AT400</i>	22 1
<i>Aero Commander Inc (now Rockwell International)</i>		<i>American Aircraft Corp (now Grumman American Aviation Corp)</i>	
100 series	3	AA-1 series	21
500 series	41	AA-5 series	69
560 series	3		
680 series	9		
690 series	7		
<i>Aero Engine Service Pty Ltd</i>		<i>Armstrong Whitworth Aircraft Ltd</i>	
115 series	2	Argosy 650 series	3
150 series	8		
<i>Aero Resources Inc</i>		<i>Auster Aircraft Limited</i>	
J2 Gyroplane	2	Mark 111 & V series	12
<i>Aeronautical Macchi SPA</i>		J series	88
AL60	1		
<i>Aerospatiale (Societa Nazionale Industrie Aerospaziale)</i>		<i>Avions Marcell Dassault - Breguet Aviation</i>	
AS350B Helicopter	15	Falcon Series E	1
AS355F Helicopter	5	Falcon 10	2
SA315B Helicopter	1	Falcon 50	1
SA330J Helicopter	4		
SA341G Helicopter	1	<i>AV Roe & Co Ltd</i>	
SA365C Helicopter	1	594 Mk4 'Avion'	1
		643 Mk 11 Cadet	1
		652 Mk 1 Anson	1
<i>Agusta, SPA Construzioni Aerocicche, Giovanni</i>		<i>Ayres Corp</i>	
Agusta A109A	1	S2R series	14
Agusta-Bell 206B Helicopter	3		
Agusta-Bell 47G-3B-1 Helicopter	1	<i>Balloon Works</i>	
		Firefly 6B	1
<i>Airbus Industrie</i>		<i>Beagle Aircraft Ltd</i>	
A300	4	A61	1
		A109	5
		B121	3
<i>Airpart (NZ) Ltd</i>		<i>Bede Aircraft Inc</i>	
FU24 series	25	BD-4	5
<i>Beech Aircraft Corp</i>		<i>Boeing Company</i>	
17 series	1	75 series	1
18 series	4	727 series	25
19 series	5	737 series	12

<i>Manufacturers and Aircraft Type</i>	<i>No of each type</i>	<i>Manufacturers and Aircraft Type</i>	<i>No of each type</i>
23 series	79	747 series	22
24 series	9	747SP series	2
33 series	14	767	5
35 series	97		
36 series	103	Bristol Aircraft Ltd	
50 series	3	F2B Replica (Air Charter)	1
55 series	24		
56 series	3	British Aerospace PLC	
58 series	80	HS 125 series 800B	1
60 series	13	Jetstream 3100 series	3
65 series	25	BAe 146-200A	1
70 series	3		
76 series	24	British Aircraft	
77 series	10	Manufacturing Co	
90 series	3	Swallow 2	1
95 series	10		
95-55 series	67	Britten Norman Ltd	
200 series	20	(now Pilatus-Britten Norman)	
		BN2 series	23
Bell Helicopter Company			
47 series	58	Bushby Aircraft Inc	
205 series	5	Mustang Mk1	1
206 series	87	Mustang Mk II	7
212 series	9		
222 series	5	Cameron Ballons Ltd	
412 series	7	0/77	2
Bellanca Aircraft Corp		Canning, Clive Rupert	
7 series	15	SE5A Replica	1
8 series	26		
		Cassutt, T.K.	
		111M	3
Cessna Aircraft Company		Consolidated Aeronautics Inc	
150 series	293	C-2 series	1
152 series	130	LA-4 series	17
170 series	7		
172 series	874	Consolidated Vultee Aircraft	
175 series	24	Corp	
177 series	54	PBY-5A series	1
180 series	82		
182 series	587	Construcciones Aeronauticas	
185 series	43	CASA C212-CC	2
188 series	100		
195 series	1	Corby, J.C.	
206 series	172	CJ-1	14
207 series	16		
210 series	218	Cujet Kovic, Anton	
303 series	6	CA65	1
310 series	92		
320 series	2	Czechoslovak Automobile &	
336 series	2	Aircraft Works	

<i>Manufacturers and Aircraft Type</i>	<i>No of each type</i>	<i>Manufacturers and Aircraft Type</i>	<i>No of each type</i>
337 series	33	Aero 145	1
340 series	18	Meta Sokol L40	3
401 series	3	Morava L200A	1
402 series	71		
404 series	15	De Havilland Aircraft	
411 series	4	(Australia, United Kingdom & Canada)	
414 series	13	DH60 series	1
421 series	19	DH82 series	133
425 series	1	DH84 series	2
441 series	8	DH85 series	2
500 series	3	DH87 series	4
501 series	2	DH89 series	2
550 series	10	DH94 series	3
Champion Aircraft Corp		DH104 series	1
(now Bellanca Aircraft Corp)		DH114 series	6
7 series	8	DHA3 series	2
Commonwealth Aircraft Corporation		DHC1 series	20
CA16 series	1	DHC2 series	31
CA18 series	3	DHC6 series	15
CA25 series	9		
CA28 series	3	Department of Industry and Commerce (Government Aircraft Factory)	
Comper Aircraft Corp		N22 series	18
C7 series	1	N24 series	10
Dornier Werke GMBH			
D027 series	1	Gates Learjet Corp	
Douglas Aircraft Co Inc		24 series	1
(now McDonnell Douglas Corp)		35 series	12
DC3 series	11	Grumman Aircraft Engineering Corp	
DC9 series	10	(now Grumman American Aviation Corp)	
Druine, Avions Roger		G159	1
D5 series	1	G164	10
D31 series	2	G1159	1
Du Beam, Constructions Aeronautiques		GA7	5
GY201	7	G73	1
		G73T	1
		Gulfstream 695	6
Empresa Brasileira De Aeronautica S/A			
EMB 110B series	13	Hawker Siddeley Aviation Ltd	
		(now British Aerospace)	
Enstrom R.J. Corp		HS125 series	4
F28 series Helicopter	8	Seafury Mk 10	1
F280 series Helicopter	1	Seafury Mk X1	1
Evans W.S.		Heintz Zenith Aviation	
		CH200 series	2

<i>Manufacturers and Aircraft Type</i>	<i>No of each type</i>	<i>Manufacturers and Aircraft Type</i>	<i>No of each type</i>
VP1 series	14	CH300 series	3
VP2 series	5		
Experimental Aircraft Assoc Inc		Helio Aircraft Company 295 series	1
Acro Sport Bi-plane	1	Hiller Aviation 260/VH12 series Helicopter	24
Fairchild Stratos Corp (now Fairchild Miller Corp) 24 series	5	Hughes Helicopter 269 series	49
		369 series	5
Fairley Aviation Firefly AS-6	1	Intermountain Manufacturing Co A9A series	9
Fokker B.V. F27 series	32	Israel Aircraft Industries Ltd 1124	8
F28 series	16		
Fuji Heavy Industries Ltd FA200 series	14	Jodel, Societa Des Avions D9 series	8
		Jodel, DR-1050	3
		D11 series	14
Jones-Fokker DRI Replica	1	Osprey Aircraft Osprey 2	1
Junkers Flugengwerke A50	1	Partenavia Construzioni Aeronautiche SPA P63 series	47
Klemm Flugzeuge GMBH L25 series	1	Pazmany Aircraft Corp PL2 series	3
Eagle BK1	1	PI4 series	1
K & S Aircraft Supply SA102.5 Cavalier	2	Percival Aircraft Co Gull series	1
		Proctor series	1
Lockheed Aircraft Corp 12 series	1	Piaggio & Co SPA (now Piaggio Rinaldo) P166 series	1
P2V7 (SP2H) Neptune	1		
Liscombe Aircraft Corp 8 series	2	Piel Aviation SA 90 series	1
Liton Aircraft Ltd LA4 series	4	100 series	4
LA5 series	1	115 series	1
Maule Aircraft Corp M4 series	4	Pientenpol B.H. GN-1 Aircampe	2
M5 series	11	Piper Aircraft Corp J3 series	4
M-5-180C	1	PA11 series	1

<i>Manufactures and Aircraft Type</i>	<i>No of each type</i>	<i>Manufacturers and Aircraft Type</i>	<i>No of each type</i>
Mitsubishi Heavy Industries Ltd & Mitsubishi Aircraft International		PA18 series	40
MU2B series	9	PA19 series	1
		PA20 series	2
Monnett Experimental Aircraft Inc		PA22 series	54
Soneral Mk II	2	PA23 series	78
		PA24 series	61
Mooney Aircraft Corp		PA25 series	93
M20 series	117	PA28 series	687
		PA30 series	63
Navion Rangemaster Aircraft Corp		PA31 series	115
G series	1	PA32 series	161
		PA34 series	67
North American Aviation Inc (now Rockwell International)		PA36 series	30
AT-6D Texan	5	PA38 series	50
		PA39 series	6
Pitts Aviation Enterprises Inc		PA42 series	1
S1 series	15	PA44 series	12
S2 series	10	SAAB Aircraft Co	
		91 series	1
Porterfield Aircraft Corp (now Northwestern Aerial Corp)		SAAB—Scannia As:	
35-70 series	1	SF—340A	1
		Short Brothers Pty Ltd	
Quickie Aircraft Corp		SD3-30 series	4
Quickie 1	1	SD3-60 series	3
Rand Robinson Engineering Inc		Siai Marchetti SPA	
KR-2	6	S205 series	2
		F260 series	1
Reims Aviation SA		Sikorsky Aircraft Corp	
FRA 150 series	2	(now United Aircraft Corp)	
FR 172 series	1	S-558B	2
F172 series	1	S61N Helicopter	2
		S76 Helicopter	7
Republic Aviation Corp		Slingsby Aircraft Ltd	
RC3 Seabee	1	T66 Mk III	1
Robin Avions		Snow Aero Corp	
R2160	4	600S-2D	2
Robinson Helicopter Company		SOCATA—Groupe Sud Aviation	
R22 series	31	(now Group Aerospatiale)	
		MS 880 series	3
Rockwell International		MS 885 series	1
S2R series	8	MS 893 series	1
112 series	8	Rallye 235E	1
114 series	23	MSTB 9 series	3
685 series	3	MSTB 10 series	14
690 series	4	MSTB 20 series	7

<i>Manufacturers and Aircraft Type</i>	<i>No of each type</i>	<i>Manufacturers and Aircraft Type</i>	<i>No of each type</i>
Rollason Aircraft and Engines Ltd		Stampe et Renard SV4B	2
Beta Standard	1	Steen Aero Lab Inc Skybolt	6
Rutan Aircraft Factory		Stevens Akro	3
Long-Ez	3	Tipsy Aircraft Co Ltd T66 Mk II	1
Vari-Ez	7	Transavia Corp Pty Ltd PL12 series	13
Ryan Aeronautical Corp		Sopwith Pup Replica	1
ST series	4	Van Grunsven RV-4	1
Stinson Division of Consolidated Aircraft Corp		Victa Limited 100 series	35
(now General Dynamics Corp)		115 series	35
SR8 series	1	210 series	1
76(L-5) series	1	Waco Aircraft Company D2C8 'special'	1
STITS Aircraft		YKS-6	1
SA6 series	1	Westland Aircraft Company Widgeon III	1
SA7 series	1	Westland Helicopters Ltd Scout AH-1	1
Stoddard Hemilton		Wittman Tailwind W8	2
Glasair SH-2	3	Wren Aircraft Corp 460 series	1
Sub Aviation			
(now Aerospatiale)			
GY80 series	1		
Swearingen Aircraft			
SA226 series	9		
SA227 series	2		
Taylor, J.			
Monoplane	3		
Taylorcraft Inc			
J2 series	1		
Thorpe Aircraft Co			
T18 series	19		
T111 series	2		
		TOTAL	6932

E. COASTAL SURVEILLANCE*

The principal objectives of coastal surveillance and protection are to:

- demonstrate Australia's resolve and capacity to increase control over its sovereign territory;
- identify possible breaches of Australian law; and
- gather information on patterns of activity in the littoral and offshore areas in order to increase the overall effectiveness in meeting the objectives above.

On April 1983, the Minister for Aviation in his capacity as Minister assisting the Minister for Defence was requested to examine Australia's needs for coastal surveillance and protection in peace times and how they are met, and to report and make recommendations.

As a result of this report, the Government made a number of decisions which may be summarised as follows:

- A Coastal Protection Unit (CPU) to be established within the Australian Federal Police (AFP) to be responsible for the direction and coordination of coastal surveillance response and enforcement.
- A unit of the CPU to be established within the Australian Coastal Surveillance Centre (ACSC). The CPU to be a joint user of the ACSC with the Department of Transport which would manage ACSC functions.
- The Special Minister of State to be responsible for, and the Government spokesman on, civil coastal surveillance.
- Custom Officers to be attached to CPU.
- Commonwealth regional coordination centres, under the management of the CPU, to be established in Northern Australia.
- Agreement to be sought from Premiers and the Chief Minister of the Northern Territory to the establishment of a Standing Advisory Committee on Coastal Protection and Surveillance (SAC-CPS) consisting of senior representatives from State and Commonwealth instrumentalities responsible for surveillance and enforcement, including the head of the CPU.
- Standing Interdepartmental Committee on Coastal Surveillance to continue under the chairmanship of AFP.
- Defence Force to continue to have responsibility, as coordinated by the AFP for offshore surveillance that can best be performed by RAAF P3 Orions and RAN patrol boats.
- The extension of the 'user-pays' principle to Defence Force contributions to civil coastal surveillance to be considered after the CPU commences operations.
- CPU to examine a night surveillance capacity, the civil requirement for airspace surveillance and the adequacy of State resources or whether it may be necessary to equip the CPU with additional inshore patrol craft or aircraft for operations in particular areas.

*Source: Beazley, Kim C., A Review of Australia's Peacetime Coastal Surveillance and Coastal Protection Arrangements 1983/84 presented to Parliament by the Special Minister of State the Honourable M.J. Young, MP, March 1984 (Parliament of the Commonwealth of Australia, Parliamentary Paper No.212/1984).

- Aerial littoral surveillance to continue to be by aircraft on charter.

The principal step in implementing the above decisions was the establishment of CPU. Its organisation and functioning are set out below.

Organisation of Coastal Protection Unit (CPU)*

CPU is headed by a Chief Superintendent of the AFP and comprises a Headquarters located in Canberra controlling three regional CPU Coordination Centres, one each at Cairns, Darwin and Broome. The Headquarters has a staff of 22 (14 members of the AFP and 8 of the Commonwealth Public Service); each regional centre has a staff of five (4 AFP and 1 CPS). CPU Headquarters is co-located with the Department of Transport Marine Search and Rescue Service in the Federal Sea Safety and Surveillance Centre. This Centre is under the control of the Department of Transport.

Functions and Conditions

CPU is chiefly concerned with coordinating and directing a complex system of surveillance, response and enforcement designed to assist in protecting the Commonwealth against:

- entry from abroad of exotic diseases that are a danger to animals, plants and humans;
- illegal entry by persons of goods, with particular emphasis on drugs;
- unauthorised exploitation by foreign vessels of resources in the 200 nautical mile Australian Fishing Zone (AFZ) and of living sedentary organisms on the Australian Continental Shelf;
- damage to the Great Barrier Reef (GBR) and National Nature Reserves from human activity.

The threat of illegal entry in remote areas is greatest in the North and that part of Australia is the main focus of CPU attention. Nevertheless, at the same time, the threat of illegal fishing in the AFZ extends to all waters surrounding Australia and her external territories (an area of much the same size as the Australian land mass), and this vastly extends the area of concern to the CPU.

The CPU coordinating role requires it to ensure the effective programming and integrated operation of an array of resources, many of which are not under the direct command of the CPU. These include:

- frequent (daily in high risk sectors) aerial patrols of the coastline (littoral) between Karratha (WA) and Cairns (Qld). This utilises civil aircraft of Skywest Airlines Pty Ltd under charter to the Department of Transport, which has responsibility for contract performance. This littoral patrol is mainly for quarantine protection purposes. Flying time per year amounts to approximately 10,000 hours;
- aerial patrol of the GBR and the Ashmore and Cartier Island Territory by Skywest aircraft at the rate of 1,800 hours per year;
- RAAF Orion P3 long range maritime patrol aircraft providing 1,200 hours patrol time each year for surveillance of the AFZ;

*Source: Department of Transport, Coastal Protection Unit, Situation Report June 1985.

- ad hoc charters of vessels for quarantine patrols of northern areas;
- various field staff of government departments and authorities available for response and enforcement operations.

To facilitate coordination there are two Canberra-based inter-departmental committees chaired by CPU. These undertake program planning, operations review, budgeting, drafting of procedures and the provision of policy advice. There is also a committee of Commonwealth and State officials which meets to examine ways of improving coordination of Commonwealth and State resources. At the moment State vessels and aircraft do not play a large part and it is thought that there is greater scope for utilisation. Whilst these committees normally meet on a monthly basis, they are convened whenever an important operation is under way or if a special situation arises that requires a change to routine arrangements.

Future Developments

The political sensitivity of coastal surveillance and protection issues is demonstrated by the decision in March 1985 of the House of Representatives Expenditure Committee to hold an inquiry into the subject. This will review all aspects, with emphasis on establishing if the improved coordination and direction, which the Government expected as a result of setting up CPU, has in fact been achieved.

At present, the activities in the remote North undertaken by the Customs Service do not form part of the program for which CPU is responsible. Customs officers are attached to CPU and they have free access to the results of all surveillance activities. However, there is scope for better integration of activities with a rationalisation of resources, particularly in matters relating to the smuggling of drugs which is of joint concern to the AFP and Customs.

Civil flying contracts currently held by Skywest Airlines expire in March 1986. Already CPU is studying the future style of contract operations and whether or not the aircraft and equipment specified should be upgraded. The carry over situation from the previous regime whereby the Department of Transport manages these contracts will be reviewed. Responsibility could be transferred to the AFP, with the necessary expertise being acquired by the transfer of appropriate staff from Transport.

PART TWO INTERNATIONAL BASIS

A AUSTRALIA'S TREATY COMMITMENTS

Australia is a member of or a signatory to the following agreements and treaties.

ANZAC Pact*

World War II in the Pacific produced the first real attempt to define an Australia-New Zealand defence interest in the region. The 1944 Australia-New Zealand Agreement, the ANZAC Pact, was more than simply a reaction to an external threat. It also reflected changing strategic perceptions and a fear that Australian and New Zealand interests might be ignored by the major Allies in their plans for finishing the War and for reconstruction in the Pacific. It declared an Australia-New Zealand need to act together to protect these interests where they coincided.

The ANZAC Pact outlined a regional zone of defence, based on Australia and New Zealand and stretching through the islands to the north and north east of Australia, to Western Samoa and the Cook Islands. This zone was, in fact, never established. But the Pact did recognise a bilateral defence interest in the South West Pacific area and it did set out a broad framework for defence cooperation. It also provided for a common doctrine of equipment, organisation and training, joint planning, exchanges and logistic cooperation.

The ANZAC Pact encouraged, in addition, defence cooperation at the service and technical level. Training and exchanges both individual and at unit level were developed and a wide range of combined exercises, both bilateral and multilateral were initiated. From these activities, most of which continue to this day, developed many individual contacts, and formal and informal consultations at all levels in a wide variety of professional and technical fields, which continue to underpin the defence relationship today.

The ANZUS Treaty**

The ANZUS Treaty provides the formal basis for the US security guarantee to Australia and New Zealand. It was signed in the Presidio at San Francisco on 1 September 1951, against the background of (i) the victory of the Communist forces on the Chinese mainland in 1949; (ii) the outbreak of the Korean War in June 1950; and (iii) the termination of the Allied occupation of Japan and the drafting of a peace treaty under which Japanese rearmament would be permitted. The Australian Government was determined, as the Joint Committee on Foreign Affairs and Defence has recently reported, 'to oppose a lenient peace settlement with Japan, except in the context of a guarantee of United States defence of Australian security in the event of a resurgence of Japanese militarism'.

*Source: Nockels, J.A., 'Australian-New Zealand defence cooperation in the Asia-Pacific region' in Desmond Ball (ed.), The ANZAC Connection (George Allen & Unwin, Sydney, London, Boston, 1985) pp.82-90.

**Source: Ball, Desmond, 'The Security Relationship Between Australia and New Zealand' in Desmond Ball (ed.), The ANZAC Connection, (George Allen & Unwin, Sydney, London, Boston, 1985) pp.34-52.

This 'guarantee' is contained in Articles III and IV of the Treaty:

ARTICLE III

The Parties will consult together whenever in the opinion of any of them the territorial integrity, political independence or security of any of the Parties is threatened in the Pacific.

ARTICLE IV

Each Party recognizes that an armed attack in the Pacific Area on any of the Parties would be dangerous to its own peace and safety and declares that it would act to meet the common danger in accordance with its constitutional processes.

The critical points to note are, first, that the parties are bound only to 'consult together'; second, that any action by any party is conditional on approval of 'constitutional processes'; and, third, that the Treaty, strictly interpreted, applies only to threats or attacks in the Pacific Area. However, as the Joint Committee on Foreign Affairs and Defence noted in 1981, 'there is general acceptance that the ANZUS Treaty does not apply in different ways to different parts of Australia's metropolitan territory, which includes the Australian littoral on the Indian Ocean'.

Colombo Plan

The Colombo Plan is a plan for the economic development of South and South-east Asia. It was launched at a meeting in Colombo in January 1950 of Commonwealth Foreign Ministers. Australia was one of the original seven members - the membership has now expanded to 24.

Agreements on Atomic Testing Grounds in Australia

These agreements between Britain and Australia were announced on May 13, 1947.

Antarctic Treaty

On December 1, 1959, a 30-year treaty was signed in Washington at the end of a 12-nation conference on peaceful international scientific cooperation in Antarctica. The 12 original signatories were Argentina, Australia, Belgium, Britain, Chile, France, Japan, New Zealand, Norway, South Africa, the Soviet Union and the United States. Czechoslovakia, Denmark and Poland have subsequently joined. The treaty came into force on June 23, 1961.

Nuclear Non-proliferation Treaty

Australia signed the Nuclear Non-Proliferation Treaty in February 1970. Instruments of ratification were deposited in January 1973.

Geneva Protocol

The 1925 Geneva Protocol is concerned with the prohibition of the use in war of asphyxiating, poisonous or other gases, and of bacteriological methods of warfare. Australia deposited her ratification of the protocol on January 22, 1930.

Partial Test Ban Treaty

The treaty is concerned with the banning of nuclear weapon tests in the atmosphere, in outer space and under water. The treaty was signed in August 1963 and it came into force on October 10 of the same year. Australia signed the treaty on August 8, 1963 and deposited her ratification on November 12, 1963.

Five Power Defence Arrangement

The nations involved in the Five Power Defence Arrangement are Malaysia, Singapore, Britain, Australia, and New Zealand.

The Five Power Defence Arrangement replaced the Anglo-Malaysian Defence Agreement which expired in November 1971. It was agreed that in the event of an attack on Malaysia or Singapore, the five governments would consult and consider what action, either joint or separate, should be taken jointly or separately in relation to such attack or threat. The British, Australian and New Zealand forces in Malaysia and Singapore were integrated and became the ANZUK force.

On 1 January 1975 the ANZUK force went out of existence. At the time it was stressed that the force was not an integral part of the Five Power Arrangement which did not require the presence of forces from the three nations in Singapore or Malaysia.

The South-East Asia Collective Defence Treaty

Australia is a signatory to this treaty, commonly referred to as the Manila Pact, which was signed on 8 September 1954. Co-signatories are Thailand, the Philippines, Britain, New Zealand, France, and the United States. Although the South-East Asia Treaty Organisation (SEATO), the military planning headquarters set up in Bangkok under the aegis of the Manila Pact, was allowed to run down in the early 1970s and no longer has any staff consultative arrangements, under the terms of the Pact the signatories are still committed to the military obligations which are entailed in Article IV(i) - namely:

Each party recognises that aggression by means of armed attack in the Treaty area against any of the Parties or against any State or territory which the Parties by unanimous agreement may hereafter designate, would endanger its own peace and safety, and agrees that it will in that event act to meet the common danger in accordance with its constitutional processes. Measures taken under this paragraph shall be immediately reported to the Security Council of the United Nations.

ABCA Military Standardisation Programme

Since the 1950s the New Zealand and Australian forces have sought to maintain a reasonable degree of logistic compatibility. The framework for this type of military cooperation was provided by the arrangements known

by the acronym ABCA worked out among the armies of the United States, Britain, Canada and Australia in order to induce member countries to work towards standardisation of equipment and operational procedures. New Zealand is an associate member of ABCA, sponsored by Australia. (The air forces of the five countries have similar arrangements.)

The aims of the ABCA Programme are to:

- a ensure the fullest cooperation and collaboration among the American, British, Canadian and Australian Armies;
- b achieve the highest possible degree of inter-operability among the signatory Armies through material and non-material standardisation; and
- c obtain the greatest possible economy by the use of combined resources and effort.

Each Army benefits in a different way by being a member of the ABCA Programme. Although it is not possible to list all the advantages the Programme offers each of its members, the following are considered to be out of major value to all participants:

- Standardisation Lists.
- Cooperative research and development.
- Loans of equipment.
- Defence sales.
- Quadripartite Standardisation Agreements (OSTAG).
- Quadripartite Advisory Publications (QAP).
- Exchange of ideas.

The Technical Cooperation Programme (TTCP)

An arrangement between USA, Britain, Canada, Australia, and New Zealand designed to promote a regular exchange of technical information in areas of current interest in defence research and development.

The Cooperative Research and Development Project Agreements

An international agreement with USA relating to cooperative research and development in defence fields.

The Data Exchange Agreement

An agreement with USA concerning an exchange of information in specific subject areas not covered by the Cooperative Projects Agreement. Opened on 16 September 1967.

The North West Cape Naval Communications Station Agreement

An agreement with the USA concerning the establishment and operation of a naval communications station at North West Cape, Western Australia. Entered into force on 28 June 1963. The station was officially opened on 16 September 1967.

The Joint Defence Space Research Facility Agreement

An agreement with the USA concerning the establishment of a Joint Defence Space Research Facility (JDSRF), commonly known as Pine Gap, near Alice Springs, Northern Territory. Entered into force on 9 December 1966, renewed on 19 October 1977. The station commenced operation in 1970.

The Joint Defence Space Communications Station Agreement

An agreement with the USA concerning the establishment of a joint Defence Space Communications Station (JDSCS), generally known as Nurrungar, at Woomera, South Australia. Entered into force on 10 November 1969. Station commenced operation in early 1971.

The Joint Project Agreement

An arrangement with UK concerning the development and operation of the Woomera Range.

The Commonwealth Advisory Aeronautical Research Council

A body of British Commonwealth countries which discusses and coordinates research in aeronautics.

Miscellaneous Treaties with USA:

- | | |
|------|--|
| 1940 | Treaty amending the Treaty of 15 September 1914 for the Advance-
ment of Peace. |
| 1942 | Exchange of notes relating to Service of Nationals of one country
in the Armed Forces of the other country. |
| 1942 | Agreement relating to Reciprocal Waiver of Passport and Visa
Requirements for Members of the Armed Forces. |
| 1944 | Exchange of notes regarding the Jurisdiction over Prizes taken by
Naval Forces in Foreign Waters. |
| 1951 | Exchange of notes constituting an Agreement relating to Mutual
Defence Assistance. |
| 1956 | Agreement for cooperation concerning the civil uses of Atomic
Energy. |
| 1956 | Exchange of notes regarding the Furnishing of Supplies and
Services to Naval Vessels. |
| 1956 | Agreement for cooperation regarding Atomic Information for Mutual
Defence Purposes. |
| 1958 | Agreement to facilitate the Interchange of Patent Rights and
Technical Information for Defence Purposes together with exchange
of notes. |
| 1960 | Exchange of notes constituting an Agreement relating to Space
Vehicle Tracking and Communications. |
| 1960 | Mutual Weapons Development Programme Agreement. |
| 1961 | Exchange of Notes constituting an Agreement for Cooperation in a
Transit Navigational Satellite Programme. |
| 1963 | Agreement relating to the establishment of a United States Naval
Communication Station in Australia. |
| 1964 | Agreement concerning the Status of United States Forces in
Australia, and Protocol. |
| 1966 | Agreement relating to the Establishment of a Joint Defence Space
Research Facility. |
| 1969 | Agreement relating to the Establishment of a Joint Defence Space
Communications Station in Australia. |
| 1970 | Exchange of notes constituting an Agreement regarding the launch-
ing of three Aerobee Rockets. |
| 1973 | Exchange of Notes constituting an Agreement concerning the
launching of Seven Aerobee Rockets. |

- 1976 Exchange of Notes constituting an Agreement concerning the launching of six Aerobee Sounding Rockets.
- 1977 Exchange of Notes constituting an Agreement for the Establishment in South Eastern Australia of an OMEGA Navigational Facility.
- 1978 Exchange of Notes constituting an Interim Agreement on Peaceful Nuclear Co-operation.
- 1979 Exchange of Notes constituting an Agreement for the staging of United States B-52 aircraft and associated KC-135 Tanker aircraft through Royal Australian Air Force Base Darwin.
- 1981 Exchange of Notes constituting an Agreement for the staging of United States B-52 aircraft and associated KC-135 Tanker aircraft through Royal Australian Air Force Base Darwin.

Memorandum of Agreement (MOA) and Memorandum of Understanding (MOU) (of less than Treaty status) with USA

- 1948 Agreement on Air Standardization Committee (RAAF, USAF, RAF, RNZAF, CDF).
- 1954 Agreement for the exchange of equipment for test purposes (USAF, RAF, CDF, RAAF, RNZAF, USN, RN).
- 1964 Air standardisation coordinating committee - addendum.
- 1965 Logistic support (MOU).
- 1965 Air standardisation coordinating committee - second addendum.
- 1965 Logistic Arrangement.
- 1966 Catalogue data and cataloguing services.
- 1966 Airlift support.
- 1967 Air standardisation coordinating committee - third addendum.
- 1968 Air standardisation coordinating committee - fourth addendum.
- 1969/70 Exchange of letters granting waiver of royalties to Australian Government.
- 1970 Defence procurement.
- 1970 Fraser-Laird Agreement for supply of additional F111C aircraft.
- 1970 Memorandum for quality assurance on defence fuel supply centre petroleum procurement.
- 1971 Government quality assurance.
- 1971 Exchange of letters concerning RAN joining American, British and Canadian Authorities in the standardization of Engineering Materials and practices.
- 1972 Products of non-resident manufacture.
- 1973 Mapping, charting, geodesy arrangements.
- 1973 Memorandum of Discussions concerning the establishment of the basis of an associated offset arrangement.
- 1976 Exchange of military personnel between the Australian and US Army.
- 1976 Training of units from the Australian and US Army.
- 1976 Arrangement whereby US Defence Communications Agency may lease commercial circuits through Australian Department of Defence as Agent.
- 1977 RAAF/USAF officer exchange scheme.
- 1977 MOA concerning further arrangement arising from the termination of the Mallard Project.
- 1980 MOU on exchange of military personnel between RAN and US Marine Corps.
- 1980 MOU relating to procurement and co-production of a new tactical fighter aircraft (1981 amendment also).
- 1980 Understanding on Logistic Support.

- 1981 Agreement on the pricing of military training.
- 1981 Exchange of Notes relating to an Understanding with the United Government concerning the Safeguarding of classified information 1962.
- 1982 Exchange of Notes constituting an Agreement to permit the exchange of third party messages between radio amateurs of the United States and Australia.
- 1982 MOU concerning the conduct of aerial refuelling exercises.
- 1983 MOA concerning construction and support of guided missile frigates in Australia.
- 1984 MOU for exchange fuel between the US Navy and the RAN.
- 1984 MOU between the US Navy and the RAN concerning the participation of the RAN in the US Navy Fleet Satellite Communication System.
- 1984 MOU on Logistics Support (this replaces the 1980 MOU).

MOU with New Zealand on Defence Logistics Cooperation

This MOU was signed on 2 June 1983. In the spirit of cooperation in both defence and economic relations between Australia and New Zealand, the agreement aims at strengthening the two countries' respective defence capabilities through the development of a common industrial support base.

This new agreement supersedes the 1969 Memorandum of Understanding concerning cooperation in defence supply. It is in line with the Australia-New Zealand Closer Economic Relations Trade Agreement and with longstanding principles of defence supply cooperation between Australia and New Zealand.

The intention is to incorporate in the new agreement mutually agreed administrative arrangements that will facilitate local industry participation in major equipment procurement projects. Provision is also to be made for the reciprocal repair and overhaul of defence equipment in each other's repair facilities.

Major items of defence equipment being considered for cooperative association include a new family of small arms and a fleet of light armoured fighting vehicles.

At the outset Army personnel from both sides of the Tasman will join in an evaluation of weapons eligible for selection as individual and light support weapons firing the improved 5.56 mm ammunition. Options of local production, including the potential for New Zealand industry involvement, will then be considered.

New Zealand Defence officials have attended Australian industry presentations of initial concepts for the new light armoured fighting vehicle fleet and New Zealand is considering options for further involvement in the project.

In both projects, a key objective would be the maximum practicable participation by indigenous industries, and the evaluation phases are therefore particularly significant for location of the specific industry capabilities necessary for local production.

It is acknowledged that a significant degree of commitment of Government and industry is essential for a successful outcome and that although both projects are in the early stages of development, consultations should continue to ensure a coordinated effort.

MOU with Malaysia

In April 1984 this MOU was signed by Australia and Malaysia to cover the cost sharing arrangements for the operation of the air base at Butterworth, Malaysia.

Defence and scientific installations operated in cooperation with or on behalf of other nations

Installation	Other nation involved	Purpose
1 Naval Communications Station 'Harold E. Holt' North West Cape, Western Australia.	USA	Communications to US and Australian submarines and surface vessels. (VLF, HF, and SATCOM systems.)
2 Joint Defence Space Research Facility (JDSRF), Pine Gap, Alice Springs, NT.	USA	Ground station operated by Central Intelligence Agency (CIA) for control of signals intelligence (SIGINT) satellites.
3 Joint Defence Space Communications Station (JDSCS), Nurrungar, Woomera, SA.	USA	Ground station operated by US Air Force Space Command for control of ballistic missile early warning satellites.
4 Joint Project, Woomera, SA.	UK	Operation of an experimental range and supporting establishment for testing and development of guided weapons and other projects.
5 Joint Tropical Research Unit, Innisfail, Qld.	UK	Conduct exposure tests of defence-associated materials under tropical conditions.
6 TRANET Station 545 (previously designated 112 and 412), Smithfield, SA.	USA	Satellite tracking station operated in support of US navigation and geodetic satellites.
7 Swanbourne Barracks, Perth, WA.	USA	Satellite tracking station operated in support of US geodetic satellite programs.

Installation	Other nation involved	Purpose
8 Townsville	USA	Satellite tracking station operated in support of US geodetic satellite programs.
9 Norfolk Island	USA	Satellite tracking station operated in support of US geodetic satellite programs.
10 NASA Tracking Station Tidbinbilla, ACT	USA	Support for Earth orbiting satellites and deep space probes.
11 Balloon Launching Station Mildura, Vic.	USA	Project HIBAL.
12 Solar Observatory, Learmonth, WA.	USA	Solar observations.
13 Anglo-Australian Telescope	UK	Astronomical observations.
14 Joint Geological and Geophysical Research Station, Alice Springs, NT.	USA	Seismic monitoring of explosions and natural events including earthquakes.
15 World Standards Seismograph Network stations at Hobart, Tas.; Adelaide, SA; Charters Towers, Qld; and Mundaring, WA.	USA	Collection of seismic data.
16 Seismic Research Observatory, Narrogin, WA.	USA	Automatic collection of seismic data to very low levels.
17 Omega Navigation Station, Darriman, Vic.	USA	VLF navigation system.
18 RAAF Base Darwin, NT.	USA	RAAF base used by US B-52 aircraft on ocean surveillance and navigation training flights.
19 HMAS Stirling, Cockburn Sound, WA.	USA	RAN base used by US Navy.
20 Communications Station, Kowandi, near Darwin, NT	UK	Communications station jointly operated by the Australian Secret Intelligence Service (ASIS) and the UK Secret Intelligence Service (SIS or MI-6).

B AUSTRALIA'S DEFENCE RELATIONS WITH PAPUA NEW GUINEA AND OTHER SOUTH WEST PACIFIC COUNTRIES

Much of the following information has been extracted from two submissions by the Department of Defence to the 'Inquiry by the Senate Standing Committee on Foreign Affairs and Defence into the need for an Increased Australian Commitment in the South Pacific', one dated March 1977 and the other August 1983.

General

Cooperation in defence matters is a common feature of relations between friendly countries that share significant security interests. It is not confined to those which seek to counter specific threat. As in the case of Australia, whose security prospects are generally favourable, cooperation can enhance factors which directly or indirectly support our security and that of neighbouring areas.

The broad objective of our participation in Defence Cooperation Programs (DCPs) is to promote the national independence of participating countries. The programs represent a practical expression of our interest in regional security and promote contacts with the governments and defence forces of countries with which we have shared strategic interests. By contributing to security in our neighbouring regions, these programs strengthen Australia's own security and thus constitute part of our national defence effort.

The objective of our participation in defence cooperation with others is not primarily to contribute to economic development in partner countries, or to generate goodwill in support of foreign policy objectives, although such benefits generally flow from effective collaboration to meet practical needs. DCPs are not intended to draw neighbouring countries into our alliance commitments, or to signify Australian endorsement of their policies. They respond to the needs and priorities of our DCP partners. They are bilateral in nature and vary in accordance with the differing circumstances of our partners.

The various programs provide useful opportunities for the Australian Defence Force (ADF) to exercise and practise specialist skills in regional countries of strategic significance to Australia. They also facilitate entree for Australian industry to promote the sale and support of defence and defence related equipment.

As our programs are intended to respond to the individual needs of our partners they are developed in close consultation. Where appropriate we encourage projects which involve some contribution of resources by participating countries with Australia providing knowledge and skills. There is a similar preference for activities which have lasting economic as well as security benefit for the country concerned.

Activities which may be conducted under the various programs include:

- joint operations which exercise certain ADF skills, and meet a need, often developmental as well as defence, in the partner country (channel clearance operations in the South West Pacific region are examples);
- joint projects, often involving an equipment element, which are designed to develop a particular capability or element of the Armed forces in the recipient country;
- advisory and/or consultancy assistance by Australian Service or civilian Defence personnel, usually in support of joint projects;

- training by ADF personnel either in Australia or in the recipient country and
- assistance to enable regional defence forces to participate in combined exercises with the ADF.

Where a substantial equipment element is involved, Australia normally provides a two year support package including spare parts, training and advisory assistance. The provision of buildings and manpower is the responsibility of the participating country. Wherever possible, Australian developed and manufactured equipment is utilised.

Papua New Guinea

The long association between PNG and Australia supports a continued close relationship in which effective cooperation in defence matters is an important element. Although neither country has sought formal undertakings, both regard it as important that they maintain close consultations regarding any developments that could affect their security.

On 11 February 1977 the Prime Ministers of PNG and Australia issued a Joint Statement on defence matters which:

- affirmed the high importance both Governments attach to continuing the close cooperation in defence matters;
- acknowledged both Governments' desire to contribute to the strengthening of peace and stability in their common region;
- declared their intention to consult, at the request of either, about matters affecting their common security interests and about other aspects of their defence relationship.

DCP in PNG: The major component of Australian defence assistance to PNG takes the form of a DCP comprising three main elements: Australian manpower assistance; defence projects and equipment aid; and training of PNG personnel. Expenditure on the DCP with PNG in 1984/85 was \$16.8 million.

Australian Servicemen in PNG: In May 1985 there were 128 Australian servicemen and Defence civilians serving in PNG. Details are set out in Annex A.

Australian loan personnel, numbering 73 in May 1985, are gradually being withdrawn from the PNGDF in accordance with a 'localisation program' which replaces them with indigenous officers and men once the latter are trained and experienced enough to take over.

Status of Forces Agreement: On 26 January 1977 an 'Agreement between Australia and Papua New Guinea Regarding the Status of Forces of Each State in the Territory of the other State' was signed to make proper legal provision in accordance with customary international practice for the status of all service personnel from either country present in the other country.

An Annex to that Agreement sets out 'Special Provisions Relating to Australian Loan Personnel in Papua New Guinea'.

Use of Australian Loan Personnel in Politically Sensitive Situations: On 21 January 1977 the Australian and Papua New Guinea Ministers for Defence confirmed an arrangement between the two Governments in the matter of 'Consultations Regarding the use of Australian Loan Personnel in Politically Sensitive Situations', the text of which is as follows:

- 1 It is the intention of the Papua New Guinea Government and the Australian Government that Australian service personnel on loan to the PNGDF serve essentially as full members of the PNGDF and be available for all the normal duties of their appointments.
- 2 At the same time, the Papua New Guinea and Australian Governments have an interest in avoiding or minimising the use of Australian loan personnel in circumstances where either Government considers that such use could cause political difficulty for itself or for both Governments; decisions to use loan personnel in situations where either Government considers they would cause political difficulty must be taken jointly by the two Governments.
- 3 Any decisions regarding limitations on the use of Australian loan personnel will be guided by:
 - a greater concern to avoid the direct involvement of Australian loan personnel in combat roles than to involve them in non-combat and supporting roles; and
 - b particular reluctance for specialist, technical, and other essential Service personnel to be withdrawn in a time of crisis.
- 4 The two Governments recognise that adequate and timely consultation is essential to meet the foregoing requirements without or with minimum disturbance to the smooth operation of the PNGDF. To this end both Governments are agreed that the PNG authorities will in good time provide to the Australian High Commission information, reports and assessments about politically sensitive situations in which Australian loan personnel might be involved. These arrangements will include direct consultation between the Australian High Commissioner and the relevant PNG authorities.

Supply Support for the PNG Department of Defence: Also on 21 January 1977 the Australian and Papua New Guinea's Ministers for Defence confirmed an arrangement between the two Governments in the matter of Defence by the Department of Defence, Australia. The purpose of this arrangement is stated as follows:

- a The purpose of this Arrangement is to enable the Papua New Guinea Department of Defence to use the organisation and facilities of the Australian Department of Defence logistic system to support Papua New Guinea Department of Defence owned equipment of Australian origin and items manufactured in a third country which are carried in both the Australian Defence Force (ADF) and the Papua New Guinea Defence Force (PNGDF) inventory.
- b The support made available under this Arrangement is to include materiel supply, repair support, documentation and product support, provided that such support can be given without detriment to the Australian Services requirements. Materiel supply includes provision of repair parts, ammunition, foodstuffs and items of a minor nature.
- c This Arrangement will permit the Papua New Guinea Department of Defence to obtain under a system of agreed and assigned priorities, logistic support equivalent in the timeliness and effectiveness to that provided to the Australian Defence Force, and provides for the Papua New Guinea Department of Defence to reimburse Australia for materiel and service provided.

DCP Projects and Equipment Aid:

Considerable assistance under the Defence Cooperation Program (DCP) has been and continues to be provided to PNG, including Nomad light transport aircraft, patrol boats with RM916 radars, heavy landing craft, Land Rovers, field ambulances, communication and engineering equipment. The major part of Australian funds allocated for defence cooperation with PNG supports the maintenance of Australian loan personnel in the PNGDF. As PNG nationals develop the requisite skills and localisation proceeds, the intention is to divert a proportion of the funds thus freed to equipment/infrastructure projects and training assistance.

The availability of resources for continuing defence cooperation with PNG is assessed annually within the planning framework of the Five Years Defence Program. The matching of needs to available resources takes place in close consultation with PNG officials. The nature and extent of Australian defence assistance to PNG is under continued review.

Training: Each year about 200 PNGDF servicemen are trained in Australia at courses including the Australian Staff College. Pilots undertake training at the RAAF base at Point Cook and the Australian Army Aviation Centre.

Combined Exercises: Combined exercises are held regularly.

Naval Visits: Visits by RAN warships to Papua New Guinea occur regularly.

Other Defence Cooperation: Australia also assists PNG through logistic supply arrangements (whereby the PNGDF can draw on Australian Military spare parts stocks, repair facilities, etc.), hydrographic survey and RAAF transport flights. An Australian Training and Technical Support Unit (ATTSU) was set up in PNG in 1984 to advise the PNGDF on the development of training systems and to provide other professional military advice. Long standing arrangements whereby Australian Service units contribute to national developmental and survey programs continue. Formed Australian units (that is units under Australian command and control) assist in nation building tasks. For example, an Australian Army Engineer Squadron remains at Mendi (functioning under the Papua New Guinea Department of Works and Supply); and 6 personnel of 8 Field Survey Squadron are located in the Papua New Guinea National Mapping Bureau. The Engineers at Mendi are responsible for the oversight of the entire public works program in the Southern Highlands Province, one of the least developed areas in the country. Their major project is the building of hundreds of kilometres of roads suitable for two-wheel drive vehicles in rugged areas where previously there were only foot tracks. RAAF LRMP aircraft regularly undertake South Pacific patrols including over PNG's waters.

At independence, Australia left Papua New Guinea with a well-equipped and organised Defence Force with established facilities. But defence needs and financial resources have changed and numbers of loan personnel have decreased.

Defence Cooperation with Papua New Guinea: Analysis of 1984/85 Expenditure by Activities:

Activity:	\$
Loan Advisers in Papua New Guinea	8,600,000
Projects	5,106,000
Training in Australia	3,000,000
Combined Exercises	100,000
	<u>16,800,000</u>
	=====

AUSTRALIAN DEFENCE PERSONNEL IN PAPUA NEW GUINEA
(Figures as at 1 May 1985)

1 Formed Australian Defence Force Units In PNG

- a. Units in support of the PNG Defence Force.
Australian Training and Technical Support Unit
(attached to Headquarters PNG Defence Force)
- | | | |
|----|-----------|---|
| .. | Navy | 3 |
| .. | Army | 2 |
| .. | Air Force | 2 |
- b. Units deployed to assist in agreed development projects.
- | | | | |
|---------------------------|----|------|----|
| 8 Field Survey Squadron | .. | Army | 6 |
| Chief Engineer Works Unit | .. | Army | 23 |
- c. Units deployed to support The Royal PNG Constabulary.
- | | | | |
|----------------------------------|----|------|---|
| Australian Service Advisory Unit | .. | Army | 1 |
|----------------------------------|----|------|---|

2 Australian Defence Staff In The Australian High Commission, Port Moresby

..	Navy	3
..	Army	10
..	Air Force	3

3 Australian Loan Personnel In PNG

..	Navy	6
..	Army	48
..	Air Force	19
..	Civilian	2

4 Total Australian Defence Personnel In PNG

..	Navy	12
..	Army	90
..	Air Force	24
..	Civilian	2
	TOTAL	<u>128</u>
		=====

Other South West Pacific Countries

With the emergence of a number of newly independent states in the South West Pacific in the late 1970s the DCP was extended to complement Australian civil aid activities in the region. DCP assistance not only supports defence and police organisations but makes available specialist ADF skills in areas of civil activity such as tropical medicine, civil engineering, disposal of Second World War explosives, clearance diving, and hydrographic geodetic survey.

The provision of specialist advisers on both short and long term postings has been particularly well received, making a practical contribution to national development while helping expand reserves of the technical and trade skills which are vital to economic development.

In 1984/85, expenditure on DCP in the area totalled approximately \$6.0 m.

Training and Study Visits. The number of trainees and study visitors from the region has risen from 32 in 1979/80 to 87 in 1982/83. Servicemen and civilians attend a wide range of courses directed towards passing on specialist technical skills and practical expertise in such diverse areas as electrical trade skills and counter disaster training.

South Pacific Patrol Boat. As a consequence of the 1983 South Pacific forum meeting, the Australian Government has undertaken to design and build a South Pacific patrol boat to meet the expressed needs of the forum countries for maritime surveillance in their 200 mile exclusive economic zone. Up to 10 boats will be provided, together with personnel, spare parts and other support items, as a training and advisory package. The following five countries have indicated they will take part in the project-Papua New Guinea, Vanuatu, Tonga, The Solomon Islands and Western Samoa.

From 13 designs submitted by the 190 tenders a design known as the ASI 13 has been selected. It is 31.5 metres long and displaces 165 tonnes. The boats will be built in Western Australia and the first should be ready for delivery about the middle of 1986. The total project cost including the provision of RAN advisory assistance and training will be approximately \$43 m.

Joint Projects and Advisers. The DCP allocation to the South West Pacific states has risen from \$0.32m in financial year 1977/78 to \$3.395m in financial year 1982/83. Previous activities have included:

- Fiji - survey and mapping activities to assist the Fiji Government define accurately its 200 nautical mile Exclusive Economic Zone (EEZ), the supply of rifles and ammunition to equip the Fiji peacekeeping force in Lebanon, and assistance of the Royal Fiji Military Force (RFMF) Rural Development Unit by way of equipment and advisory assistance. (This unit carries out development work such as the construction of minor roads, bridges, and jetties in areas too remote or inaccessible for commercial operations to be viable.)
- The Solomon Islands - the survey and mapping of Solomon Islands' 200 mile EEZ, provision of a 16 metre patrol boat for in-shore fisheries surveillance, channel clearance operations to facilitate inter-island shipping and remote navigational hazards, and malaria research and control operations.

- Vanuatu - provision to the Vanuatu police of equipment and advisers (and funding for the training in PNG) for the Vanuatu Mobile Force (VMF), communications advisers, and technical assistance in refitting the police patrol boat.
- Tonga - provision of equipment to the Tonga Defence Service (TDS), and advisory assistance and support in the development of a Carpentry Training School and a maritime patrol capability.

In conjunction with New Zealand, the DCP sponsored in 1980 an assessment of the civil coastal surveillance resources and requirements of Pacific Island states. The report of this team, the Australia/New Zealand Civil Coastal Surveillance Assessment Team (ANZCCSAT), is providing island states with guidelines to develop appropriate surveillance systems.

Specific DCP activities or projects in the various countries are set out below.

Fiji

- Rural Development Unit - provision of tip trucks and technical advisers for the Rural Development Unit (RDU) of the RFMF.
- Hydrographic Project - provision of hydrographic equipment to the RFMF hydrographic unit.
- Communications Project - upgrading of the RFMF's capability to communicate with its UNIFIL contingent in Lebanon, and its contingent in the Sinai.
- Satellite Navigation Project - provision of satellite navigation receivers for fitting on RFMF patrol boats.
- Catering Project - mess equipment and associated training for upgraded mess hall and kitchens.
- Field Engineering Project - a team of Army engineers has completed preliminary work on a boat landing and water reticulation project on remote Cikobia Island.
- Advisers - three ADF advisers, one with the RDU, and two serving respectively as operations officer and electrical technician with the naval squadron.

Solomon Islands

- Patrol Boat Project - provision of a RAN adviser and training for the development of a surveillance program using the 16 metre patrol boat provided under the DCP in 1979.
- Channel Clearance - annual program of channel clearance carried out by RAN clearance divers to improve local navigation (by creating passages and removing marine obstacles) as well as allowing the divers to practice their specialist skills. The project also includes the provision of equipment and training to establish an indigenous Solomon Islands capability.
- Hydrographic Project - the provision of equipment, training and a RAN Chief Petty Officer Survey Recorder to assist in establishing a Solomon Islands inshore hydrographic capability.
- Offshore Hydrographic Survey - an offshore hydrographic survey by RAN personnel aboard the Department of Transport vessel CAPE PILLAR who charted deep water passages in Solomon Islands waters. Provision of the vessel was funded under the civil aid program for the Solomon Islands.

- Police Communications Project - a project to establish a new and improved communications system for the Royal Solomon Islands Police Force to permit them better to deal with crime, provide emergency services, and carry out surveillance tasks.
- Malaria Control Project - a 9 man Army preventive medicine team supervised anti-malaria DDT spraying operations on Malaita Island between August and October 1981. On-the-job training in Australia in malaria microscopy has been provided, some field research has been conducted, and laboratory equipment is to be supplied.
- Advisers - in addition to the long-term ADF adviser providing skills and training in hydrography, three Army bandsmen are on short term attachment to the Solomon Islands providing instruction for the Solomon Islands police band.
- Ndende Workshop - construction in late 1982 on remote Ndende Island of a vehicle maintenance workshop by Army field engineers.
- Maritime Patrolling Capability Study - at a request of the Solomon Island Government a team of experts conducted a feasibility study into the requirement for a long-range patrol boat.

Vanuatu

- Vanuatu Mobile Force Development Project - provision of equipment for the recently established police mobile force and support for specialist training in PNG.
- Armourer Training Project - the loan of an Army armourer and the provision of equipment to establish an armourer capability in the Vanuatu police.
- Bandmaster - the loan of a qualified RAN bandmaster to train a police band.
- Police Communications Project - provision of equipment, and operator and maintenance training to develop the Police communications network.
- Catering Project - provision of adviser and equipment to develop catering skills in the Police Force.
- Malaria Control - as part of an ongoing program, provision of laboratory equipment and malaria microscopy training.
- Rural Water Supply Project - provision of two Army experts to assist in the establishment of, and training of staff for, a national rural water supply program in conjunction with the VMF.
- Deep Water Survey - in conjunction with the Australian Development Assistance Bureau, the conduct of a deep water survey by the Department of Transport vessel Cape Pillar with a RAN hydrographic team on board.

Tonga

- Equipment Project - provision of plant and vehicles and an ex-Army landing craft (LCM8) to support the Tongan Defence Service (TDS) in its national development activities.
- Maritime Equipment Project - provision of training aids for a new maritime training school to upgrade TDS maritime capabilities, and the provision of patrol boat spare parts.
- Advisers' Accommodation - provision of three houses in Tonga to accommodate Australian Service advisers.

- Slipway Feasibility Study - Army engineers undertook a technical feasibility study for the construction of a Government slipway on Vava'u Island.
- Advisers - of the four ADF advisors currently in Tonga, two are carpentry instructors and one an electrical instructor at the TDS trade training centre. The fourth adviser, a marine engineer, is assisting in training and developing a maintenance program for TDS vessels.
- Nuku'alofa Slipway Project - provision of advisory assistance and materiel to refurbish a small slipway in Nuku'alofa.

Western Samoa

- EEZ Base Point Survey - a survey by a small Army team to establish base points to enable accurate definition of the 200 nm EEZ.
- Assistance to Police - preliminary planning is underway to provide Search and Rescue as well as communications equipment to the Police.
- South Pacific Games - it is proposed that Army experts provide catering assistance for the South Pacific Games later this year as part of coordinated Australian assistance.

Kiribati

- Channel Clearance - includes channel clearance by RAN clearance divers and the provision of equipment and training to establish a local capability.
- Christmas Island Clearance Project - the clearance/ salvaging of military and related debris on Christmas Island to allow cultivation of that island. The project involved a small team of Army technicians who were assisted by the trained local islanders.
- Survey (including Tuvalu and Nauru) - preliminary study of an EEZ basepoint survey of these islands archipelagoes planned for early 1984.

C LAW OF THE SEA*

Background

The United Nations Convention on the Law of the Sea (Montego Bay, 10 December 1982) codified the results of three conferences: the first United Nations Conference on the Law of the Sea (UNCLOS I), held in Geneva in 1958, which produced four separate conventions dealing with the territorial sea, the high seas, the continental shelf and fishing and conservation; the second United Nations Conference on the Law of the Sea (UNCLOS II), also held in Geneva, in 1960, at which participants failed to agree on the

*** Sources:**

Law of the Sea (United Nations, New York, 1983).

Nichols, D.B., The Strategic Implications for Australia of the New Law of the Sea (Strategic and Defence Studies Centre, Australian National University, Canberra, 1985).

Joint Committee on Foreign Affairs and Defence, interim report, Australia, Antarctica and the Law of the Sea (Government Printer, Canberra, 1978).

breadth of the territorial sea and exclusive fishing zones; the third United Nations Conference on the Law of the Sea (UNCLOS III), which held twelve sessions between 1973 and 1982, eventually producing a text of 320 articles and 9 annexes governing all aspects of ocean space and establishing the basis for two new international organisations - the International Sea-Bed Authority (to be sited in Jamaica) and the International Tribunal for the Law of the Sea (with headquarters in the Federal Republic of Germany).

The Convention was adopted in 1982 on a vote of 130 for, 4 against, with 17 abstentions. On the day it was opened for signature 119 States, including Australia, New Zealand and the Soviet Union, became signatories to it. On that day Fiji also deposited its instrument of ratification, becoming the first State to ratify the Convention. Participants to signatory to the Convention, however, included Japan, the United Kingdom and the United States, which had cited difficulties with the sea-bed (mining) provisions. Indonesia's ratification at the end of 1985 brought the number of States which had ratified the Convention to twenty-five. Article 308 provides that 'this Convention shall enter into force 12 months after the date of the deposit of the sixtieth instrument of ratification or accession', an event expected by the end of this decade. Australia has not yet ratified the Convention.

Provisions

(i) Territorial Sea and Contiguous Zone. A State's sovereignty is to extend for twelve nautical miles beyond its territory or its archipelagic waters over all ocean space (i.e. airspace, sea, sea-bed and subsoil) - its territorial sea. Ships of other States have a right of innocent passage through this zone, subject to laws and regulations of the coastal State, but foreign nuclear-powered ships and ships carrying nuclear or other inherently dangerous substances will be obliged to carry documents and observe precautionary measures. The right of innocent passage may be temporarily suspended by the coastal State for security purposes, including weapons exercise. In its contiguous zone - a further twelve nautical miles - the State may exercise control to prevent infringement of its customs, fiscal, immigration or sanitary laws or to punish any infringement of these laws already committed within its territory.

(ii) International Straits. Ships and aircraft of all States have a right of transit passage through these straits, subject to international regulation.

(iii) Archipelagic States. Groups of islands forming geographical, economic or political entities, or which historically have been regarded as such, are to have sovereignty over their archipelagic waters, which may be up to 9:1 in ratio to land territory. A right of innocent passage along defined sea lanes or air routes is provided for ships and aircraft of all other States, subject to regulation by the archipelagic State and possible temporary suspension for security purposes.

(iv) Exclusive Economic Zone (EEZ). A State's EEZ may extend for up to two hundred nautical miles. All other States have a right to lay cables and pipelines within this zone and to navigate or fly through it, but the coastal State has an exclusive right to construct installations, artificial islands, etc. in it and a right to determine the allowable catch of living resources.

(v) Continental Shelf. A coastal State also enjoys exclusive sovereignty, for purposes of exploration and exploitation, over its continental shelf, which may be declared to a distance of two hundred nautical miles.

(The limit may be extended up to 350 nautical miles where the natural slope extends so far, but in this case the coastal State becomes liable for payments for exploitation of non-living resources in this area.) These rights apply only to the sea-bed and subsoil, and do not affect super-adjacent waters or air space.

(vi) High Seas. The high seas are reserved for peaceful purposes and freedoms of the high seas are defined. The area of the sea-bed or ocean floor beyond national jurisdiction is described as 'the common heritage of mankind', and an Authority is created to control exploitation of this area.

Further provisions protect the interests of developing, land-locked and geographically disadvantaged States, deal with scientific research in and protection of the maritime environment and lay down procedures for settling disputes.

Implications

The new concepts embodied in the Law of the Sea Convention - the exclusive economic zone, the right of transit passage in international straits, the creation of archipelagic States and the 'common heritage' principle and associated controls over sea-bed exploitation - emerged in response to increased interest in exploiting ocean resources and an increasing variety of claims over ocean territory. By 1976 the extent of territorial sea claims, for instance, ranged from three nautical miles (claimed by twenty-one countries, including Australia) to two hundred nautical miles (claimed by ten countries). Coastal and archipelagic States have gained increased territorial rights, and at the same time an increased need for surveillance and enforcement capacities. Maritime nations, on the other hand, are subject to greater potential regulations.

Delineation of joint EEZ boundaries requires international negotiations. Australia has reached agreement with France (concerning Lord Howe and Norfolk Islands/New Caledonia and Heard and Macdonald Islands/Kerguelen Island) and with Papua New Guinea. Negotiations are continuing with the Solomon Islands (concerning Mellish Reef/Indispensable Reefs), New Zealand (concerning Norfolk Island/Three Kings Island; Lord Howe Island/New Zealand; Macquarie Island/Auckland and Campbell Islands) and Indonesia. Seabed boundary agreements were reached with Indonesia in 1971 and 1972, however four issues remain unsettled: the Timor gap, the area west of the 1972 line, Christmas Island/Java and the boundary for other than sea-bed purposes.

A further potential implication for Australia concerns Antarctica. The 1959 Antarctic Treaty favoured the twelve participants; since 1975 calls have been made in the UN for the 'common heritage' principle enunciated in the Law of the Sea to also be applied to Antarctica.

As the Joint Committee on Foreign Affairs and Defence observed in 1978, 'the South Pacific could become one gigantic EEZ from the east coast of Australia to Easter Island. In such a situation Australia will be obliged to act as both a coordinator and perhaps a leader'.

PART THREE
THE DEPARTMENT OF DEFENCE AND
HEADQUARTERS OF THE AUSTRALIAN DEFENCE FORCE

COMMAND AND CONTROL

The Federal Government is responsible for the security of Australia and the protection of Australia's interests against armed attack or threat of attack. Discharge of this responsibility is the end to which Australian defence policy and defence activity are directed.

The Minister for Defence is responsible for developing defence policy. The Defence organisation advises him on all aspects of defence policy and administers defence functions and activities. These are carried out by the Department of Defence and the Australian Defence Force (ADF), the latter comprising the Headquarters of the ADF, the Royal Australian Navy, the Australian Army and the Royal Australian Air Force. Collectively the Department of Defence and the Headquarters of the ADF are referred to as the Defence Higher Organisation (DHO).

Under the Minister for Defence, DHO is controlled by the Secretary to the Department and the Chief of the Defence Force (CDF). These officers have joint responsibility for the administration of the ADF. They have delegated many aspects of this joint administration to the Chiefs of Staff of the three Armed Services. In their individual responsibilities, the Secretary directs the work of the Department and CDF commands the ADF.

DEPARTMENT OF DEFENCE - CENTRAL ORGANISATION

The central organisation comprises the following main elements functioning under the overall control of the Secretary:

- six groups of functional divisions, each group controlled by a senior executive of Deputy Secretary level,
- the Defence Science and Technology Organisation (DSTO) under the control of the Chief Defence Scientist (CDS),
- higher Defence Committees and Statutory Authorities,
- Regional Offices,
- three outrider organisations.

The chart at Annex A shows graphically the channels of control and responsibility for the above elements within the department. The organisation of each element by divisions and branches is outlined below.

Manpower and Financial Services Group

Personnel Administration and Policy Division formulate and implement departmental policy for Service and civil personnel employed by the department. Manage and coordinate all Service and civil personnel aspects of departmental staff.

- Civil Personnel Policy and Industrial Branch
- Civil Personnel Management Branch
- Training and Education Policy Branch
- Service Personnel Policy Branch

Industrial Division develop in consultation with the Services and other relevant authorities proposals and recommendations to the Minister for Defence in relation to Defence Force pay structures, allowances, and financial and related conditions of service including retirement benefits;

devise and initiate civil industrial practices including policy on welfare and conditions, safety and industrial relations; develop and implement in respect of administrative services and special projects; coordinate the administration of Defence Regional Offices.

- Defence Force Industrial Branch
- Service Conditions Branch
- Administrative Services Branch
- Defence Housing Branch

Organisation and Manpower Resources Division control establishment and manpower arrangements to ensure that the department and the Services are provided with organisations and resources necessary to carry out their functions. Analyse Defence objectives in regard to manpower requirements and utilisation. Undertake establishment inspections and reviews. Develop policy for recruiting for the Defence Force to standards of entry, numbers and categories determined by the respective Services. Functionally control and support Defence Force recruiting operations. Provide management consultancy simulation and statistical information services within the defence organisation. Develop standards and review requirements for the use of micrographics, automated management systems and office machines. Provide consultancy and data processing for and research and development in occupational analysis.

- Manpower Policy and Requirements Branch
- Organisation and Establishments Branch
- Recruiting Branch
- Management Advisory Services Branch

Financial Services and Internal Audit Division formulate principals and procedures for finance and stores account, and accounting for receipt and disbursement of public funds. Develop financial accounting systems. Provide and manage accounting services, a costing service and an internal audit service. Manage the financial aspects and recovery of expenditure associated with contract arrangements and agreements with other administrations and governments. Review, promulgate, exercise and provide advice on the exercise of financial delegations; the exercise of delegations to write-off losses of public moneys or recommendations to higher authority; provision of financial advice for the exercise of delegations to write-off losses and damage of Australian Government assets. Departmental authority for contact with Department of Finance on matters other than estimates or facilities. Responsible for coordinating all formal responses and communications with the Auditor-General's Office and Joint Parliamentary Committee of Public Accounts.

- Financial Agreements and Costing Branch
- Accounting Policy and Operations Branch
- Financial Advisers
- Service Pay Accounting and Systems Branch
- Defence Audit Branch

Strategic Policy and Force Development Group

Strategic and International Policy Division develop strategic assessment and policy to give strategic guidance for the development of force structure; handle defence aspects of international relations and defence representatives abroad.

- Strategic Guidance and Policy Branch
- Military Staff Branch

- International Policy Sub-Division
 - ANZUS and UN Branch
 - PNG and Defence Cooperation Programs Branch
 - Asia, Territorial and General Branch

Force Development and Analysis Division provide policy advice on the force structure as a whole and on the capabilities required, including the nature of the forces, their support and activities. Initiate analysis of proposals for these capabilities, particularly for major weapon systems. Examine and advise on the basis for proposals to be brought forward relating to force structure and equipment.

- Force Development Branch
- Force Analysis Branch
- Project Development Branch

Programs and Budgets Division develop the Defence Programming budget system. Coordinate the development and control of the Five Year Defence Program (FYDP) financial and resources policy aspects of defence requirements, activities and proposals. Provide financial and resource management services to the Chiefs of Staff. Prepare the annual obligation program, the annual and additional estimates and the forward estimates. Maintain overall control and undertake review of the obligations program and expenditure under the annual Defence appropriation.

- Financial Programs Branch
- Budgets and Estimates (General and Coordination) Branch
- Resources Policy Branch
- Resources Planning (Navy) Branch
- Resources Planning (Army) Branch
- Resources Planning (Air Force) Branch
- Resources Planning (Central) Branch

Coordination, Computing and Purchasing Group

Policy Coordination Division provide advice to the Secretary and CDF on the development of policies, and the coordination and resolution of issues, in respect of matters affecting a number of functional areas for which none has prime responsibility; ministerial and parliamentary liaison; intelligence coordination; administrative review; protocol and visits; secretariat to higher defence committees; development and oversight of policy relating to public information, access to official records and civilian and military security; provide departmental legal services.

- Coordination and Liaison Branch
- Public Information Branch
- Information Policy Branch
- Legislation Branch
- Australian Government Solicitor's Contracts Office
- Defence Security Branch

Computing Services Division propose, develop and implement policy in respect of all aspects of computing and the application of computers within the department. In association with management and relevant specialist organisations, investigate, design, implement, operate and maintain all management EDP systems and other systems as required. Provide, or arrange for the provision of, general purpose computing services and support required for scientific, technical and educational applications.

Advise Defence and Service operational staffs on, and participate in, the specification, development and maintenance of message switching, weapons, combat and other special purpose computing systems, as requested.

- Project Co-ordination Branch
- Manpower and Technical Systems Branch
- Supply Systems Branch
- Computer Operations Branch
- Computer Support Branch

Purchasing (Contracts Administration) Branch coordinates the Defence Purchasing activities which undertake tendering and purchasing functions for Defence procurements above the public tender threshold of \$20,000. The purchases cover goods and services provided from and through Australian Industry and from overseas sources.

Major Contracts Branch

Capital Procurement Organisation

This organisation is responsible to the Secretary for all aspects of procurement of approved capital equipment to meet approved operational requirements within agreed constraints of time and cost. Prior to Government approval of proposed capital equipment projects, assist the Service Offices through the Chiefs of Materiel in development of new equipment proposals and responsible for specified aspects of those proposals and including proposed solutions, implementation plans, and estimates of manpower, time and cost. Responsible for resource coordination for approved capital equipment programs. Responsible for advice on Defence Industry policy and capital equipment procurement policy, and for development of procedures consistent with policy, and for advice on the development, maintenance and operation of Defence industry capability including the justification and management of funds for these purposes.

Resources Procurement Policy Division formulate policy for the financial resource and commercial aspects of approved capital equipment, including proposals for the FYDP and Draft Estimates. Development and implementation of financial policy information systems and procedures for managing capital procurement. Coordination and oversight of advice and financial management support to the Service Materiel Divisions and the Defence Communications System Division.

- Resources Procurement Policy Branch - Navy
- Resources Procurement Policy Branch - Army
- Resources Procurement Policy Branch - Air Force

Defence Industry and Materiel Policy Division establish policies and procedures relating to equipment acquisition and the presentation, processing and sourcing of Service and other Defence equipment proposals. Responsible for policies relating to development of Defence industry including Australian Industry participation in Defence equipment purchases and stocking of defence materiel. Resources coordination, source definition and monitoring of overall performance in acquisition of Major and Minor Capital Equipment.

- Industry Policy and Planning Branch
- Project Planning and Evaluation Branch
- Materiel Policy Branch

Defence Communications Systems Division plan, program and coordinate the construction, operation and maintenance of the Defence Fixed Communications Systems. Coordinate any necessary further development of the existing separate single Services fixed communications systems so that compatibility is maintained with the long-term objectives of DSC Division.

- Planning and Programming Branch
- Engineering and Support Branch

Defence Industry Development Division

- Aerospace and Electronics Branch
- General Engineering and Shipbuilding Branch
- Industry Operations Branch

Office of the Chief of Naval Materiel is responsible both to the Secretary and Chief of Naval Staff for ensuring the timely submission of projects for Navy equipment to the various processes of analysis and presentation up to the point of Government decision. Coordinate the development of Navy's new proposals for major equipment from the point of their endorsement within Navy through to the point of introduction into service. Responsible to the Chief of Naval Staff for management of the processes leading to the development and approval to purchase of all minor capital equipment items for the Navy.

Office of the Chief of Army Materiel is responsible both to the Secretary and Chief of the General Staff for ensuring the timely submission of projects for Army equipment to the various processes of analysis and presentation up to the point of Government decision. Coordinate the management of Army's proposals for new major equipments from the time of their endorsement within Army through to the introduction of the resultant equipment into service. Responsible to the Chief of the General Staff for management of the development and approval to purchase of all minor capital equipment items for the Army.

Office of the Chief of Air Force Materiel is responsible both to the Secretary and Chief of the Air Staff for ensuring the timely submission of proposals for Air Force capital equipment of the various processes of analysis and presentation up to the point of Government decision. Coordinate the development of Air Force's new proposals and ensure overall management of major capital equipment projects from the point of their endorsement within Air Force through to the point of introduction into service. Responsible to the Chief of the Air Staff for management of the development and approval to purchase of all minor capital equipment items for the Air Force.

Defence Logistics Organisation

Defence Facilities Division. Develop and implement policies and plan government Defence facilities programs, including capital works, housing, property acquisitions and disposals, and repairs and maintenance, justified by the priorities of the strategic assessment. Develop policies and plans for environmental management.

- Policy and Development Branch
- Programs Management Branch
- Directorate of Accommodation and Works (Central)
- Facilities Branch - Navy

- Director General of Accommodation and Works - Army
- Accommodation and Works Branch - Air Force

Supply Division. Plan, direct, rationalise, develop and implement policies for the effective and economic supply support of the Services; equipment standardisation and cataloguing activities; the effective and economic use of transport resources by the Services; stock holding; purchasing in conjunction with Defence Industry and Material Policy Division; formulation, administration and management of materiel aspects of Defence Co-operation Programs. Financial and cost control management for these function.

- Director General Supply - Navy
- Director General Supply - Army
- Director General Supply - Air Force
- Supply Policy Branch
- Cataloguing and General Branch
- Movement and Transport Branch

Technical Services and Logistic Development Division develop and promulgate policies on quality assurance, engineering resources, and repair and maintenance activities; develop and recommend policies, systems and procedures for the more efficient and effective use of resources allocated to logistic activities; develop policies on, and negotiate, logistic support agreements with other countries; advise on logistic policies for capital equipment acquisitions; develop policies for common supply systems and undertake the redevelopment of the Services supply systems; Materials Testing Laboratory; undertake resource coordination for supply and technical services; and exercise broad financial and cost control management for these functions.

- Logistic Resources and Development Branch
- Quality assurance Technical Services and Standardisation Branch
- Materials Testing Laboratories
- Service Quality Assurance Directors in Defence (Central) Role
- Supply Systems Redevelopment Branch

Office of the Chief of Naval Engineering contribute to the formulation of engineering and maintenance policies common to all Services; formulate Navy engineering and maintenance policies and implement Defence Central and Navy policies within the Navy.

Office of the Director General Electrical and Mechanical Engineering - Army contribute to the formulation of engineering and maintenance policies common to all Services; formulate Army engineering and maintenance policies and implement Defence Central and Army policies within the Army.

Office of the Chief of Air Force Technical Services contribute to the formulation of engineering and maintenance policies common to all Services; formulate Air Force engineering and maintenance policies and implement Defence Central and Air Force policies within the Air Force.

Defence Production

The organisation and functioning of this newly established group is set out separately in Part Nine of this compendium.

Defence Science and Technology Organisation (DSTO)

Provide scientific and technical advice on defence policy matters. Provide scientific and technical support to the Australian Defence Force in its task of maintaining effective Forces in being and for the development of the Force, for the acquisition of defence material and for such other matters as specified by the Minister for Defence. Maintain a technology base to support the Australian Defence Force, the Department of Defence and defence industry. Carry out the initial development of selected prototype equipment to meet approved Defence requirements.

DSTO maintain representatives overseas in London, Washington, Bangkok and Kuala Lumpur. Scientific advisers are also provided to each of the Armed Services.

- Special Undertakings Branch

DSTO Programs and Administration Division. Overall planning management, and administration of the DST Planning Base and Program. Advise on optimum deployment of DSTO resources to achieve program objectives. Formulate policies for and oversight cooperative arrangements with overseas governments; oversight the operation in Australia of The Technical Co-operation Program (TTCP). Oversight DSTO requirements for information services and special undertakings. Responsible for career planning of DST staff and appropriate assessments.

- Science and Technology Administration Branch
- Defence Support Centre (Woomera)

External Relations Projects and Analytical Studies Division advise on the role of science in the formulation of defence policy; develop and coordinate DSTO external relations including The Technical Co-operation Program (TTCP) and DSTO activities in preliminary R&D phases of indigenous equipment development. Supervise Central Studies Establishment, Defence Information Services Branch and the Directorate of Defence Trials.

- Trials Directorate
- Major Projects Branch
- External Relations Branch
- Defence Information Services Branch
- Analytical Studies Branch

Defence Research Laboratories

The organisation for the conduct of defence research and development is dealt with separately in Part Eight of this compendium.

Australian Ordnance Council

Advise responsible authorities on safety and suitability for Service aspects in any one or more of the fields of design, development, test and evaluation, production, and Service use of weapons and weapons systems containing explosive material.

Defence Regional Offices

Defence Regional Offices, under the control of a Regional Secretary, are located in each State capital. The basic functions of Defence Regional Offices are to provide support for the various Service elements in the Regions and to meet the needs of functional Divisions within Defence

Central. Regional Secretaries are responsible to the Secretary and are responsive to Heads of Service Commands. For day to day administration, Regional Secretaries are responsible to FAS Industrial Division.

Outrider Organisations

Joint Intelligence Organisation. (See Part Ten of this compendium) Intelligence collection and assessment.

Defence Signals Directorate. (See Part Ten of this compendium) Defence signals and communications security. Functions under the direct control of Deputy Secretary B.

Natural Disasters Organization (NDO). NDO is responsible to the Secretary through Deputy Secretary B and has the following functions:

- mitigate the effects of disasters at the request of State and Territory counter-disaster organisations and in conjunction with the Defence Force, Commonwealth Government Departments, and other Government and non-Government Departments, and other Government and non-Government organisations; and support the development of a core civil defence structure;
- develop plans at the national level to mitigate the effects of disasters to cope with civil defence needs, in conjunction with the Defence Force, the States and Territories and Commonwealth Government Departments and other Government and non-Government organisations;
- manage limited physical and financial programs in support of State and Territory Emergency Service counter disaster and civil defence roles; ensuring a dual capability for meeting both disaster and civil defence requirements in relation to the training and equipment support programs;
- coordinate Commonwealth Government physical assistance during the emergency or the immediate post-disaster phase of disasters;
- direct the activities of the Australian Counter Disaster College including programs relating to development of policy, training and research;
- provide planning and training assistance to countries of the South West Pacific Area, as part of the arrangement with ADAB for NDO to coordinate the emergency phase of Commonwealth Government overseas relief operations in this area.

When the disaster is beyond both the resources of the local professional and volunteer organisations it is then a matter for the relevant State Authorities to allocate resources to the local disaster area. Finally, if the disaster is large enough or if the Commonwealth has specialised resources which are not available elsewhere, the appropriate State Authorities will ask for the help of Commonwealth resources to be made available. It is at this stage that the NDO becomes involved in arranging and coordinating the Commonwealth contribution.

The coordination of the Commonwealth Government activities during a major disaster is undertaken at the National Emergency Operations Centre (NEOC) which is part of NDO and located at NDO headquarters in Canberra. The NEOC has telex and telephone communications direct into Police and SES operations rooms in each State. It is also tied into the Defence Force Joint Communications System and officers from NDO can communicate with all

Defence establishments, ships and aircraft in the Commonwealth. NEOC also has contact with 7,000 amateur radio operators who are members of the Wireless Institute of Australia.

In addition to the NDO permanent Operations Staff there is a part time panel of officers from the three branches of the Armed Services who are on immediate call to reinforce the NDO Staff in the event of a disaster. Also each Commonwealth Department has a Disaster Services Liaison cell that moves into the NEOC in the event of an emergency. During the emergency phase of a disaster the activities of these departments in matters relating to the disaster are coordinated by the Director-General NDO. Uniformed elements of the Joint Staff in the Department of Defence also move into the NEOC during emergencies so that the activities of the three services can also be coordinated with those of other Commonwealth Agencies.

HEADQUARTERS AUSTRALIAN DEFENCE FORCE (ADF)

Located within the Department of Defence, Headquarters ADF provides the organisation through which the Chief of the Defence Force (CDF) exercises command of the ADF. To assist him in the discharge of this responsibility there is a Judge Advocate General and two Assistant Chiefs of the Defence Force, ACDF (Policy) and ACDF (Operations).

Judge Advocate General

Appoints Defence Force Magistrates, makes rules of procedure for Service Tribunals, examines and advises on proceedings of Service tribunals referred to him by Chiefs of Staff and Reviewing Authorities, nominates members of the Judge Advocates Panel, reports annually to the Minister on the Operations of the Defence Force Discipline Act.

ACDF (Policy) (ACPOL)

Functions. Assist the CDF to discharge his command and administrative responsibilities in relation to the military implications of strategic guidance, force development, defence facilities, science and technology, planning, programming and budgeting, defence aid and supply and support. Oversight, on behalf of the CDF, administration of the Defence Force particularly in regard to Service personnel aspects, ADFA and JSSC. Supervisory responsibility on behalf of CDF in relevant areas.

Defence Force Strategic/Capabilities/Development Staff assist ACPOL to discharge his responsibilities to CDF in relation to military aspects of strategic guidance, force development and programming. Prepares staff assessments and provides advice to ACPOL and CDF in relation to matters for consideration by higher levels committees. Defence Force staffing of relevant Ministerial documents, Cabinet submissions and Parliamentary Reports.

Defence Force Administrative Policy Staff assist ACPOL to discharge his responsibilities to CDF in relation to the administration of the Defence Force other than administrative support for operations; clearance of Defence Instructions; Defence Force Advocate; ADFA and JSSC. Prepare staff assessments and provide advice to ACPOL and CDF in relation to matters for consideration by higher level committees.

ACDF (Operations) (ACOPS)

Functions. Assist CDF to discharge his command functions as they relate to military operations and plans, training, logistics, intelligence, command support systems and communications-electronics.

Joint Operations and Plans Branch

- Directorate of Joint Operations
- Directorate of Joint Operations Intelligence
- Directorate of Command and Control Systems
- Directorate of Joint Planning
- Joint Logistic Section

Joint Communications - Electronics Branch

- Directorate of Joint Communications - Electronics (Policy and Plans)
- Directorate of Joint Communications - Electronics (Engineering)
- Directorate of Strategic Communications Operations

Joint Services Headquarters Units and Organisations Responsible Direct to Headquarters ADF

Maritime Headquarters (MHQ) - established in 1985

Maritime Commander (Australia) is responsible for the conduct of joint maritime operations and activities as designated by CDF within the allotted Maritime Area of Operations (MAO).

Maritime Commander (Australia) has been given the following tasks:

- to maintain a permanent Maritime Headquarters (MHQ);
- to conduct joint maritime operations and tasks specified by CDF;
- as delegated by Chief of Naval Staff (CNS), to act as the Operational Control Authority (OCA) and Naval Operational Commander (NOC) of the Australian Sub-area in respect of the Radford/Collins Agreement (1978);
- to be responsible to CDF for the functioning of the Australian Joint Maritime Warfare Centre (AJMWC) as outlined below; and, in conjunction with the Fleet Commander and Air Officer Commanding (AOC) Operational Command, to be responsible to CNS and Chief of Air Staff (CAS) for the effective training of ships and aircraft crews as appropriate in joint maritime operations; and
- to plan and conduct those joint maritime exercises for which he is designated Exercise Commander.

Land Force Headquarters - established 1 February 1986 and to be operational by 1 July 1986.

This joint Services headquarters is being developed for the command and control of joint exercises, activities and operations in the land environment. It will include staff from all three Services for joint planning. In peacetime, this new headquarters will be allocated units and resources as necessary for joint exercises and training. In time of conflict, the allocation of combat and logistic resources will be made by the Chief of the Defence Force to meet government directives and operational requirements.

Land Force Headquarters is located at the Army's Field Force Command Headquarters in Sydney.

Air Headquarters - established 1 February 1986 and to be operational by 1 July 1986.

This joint Services headquarters is being developed along the same general lines as described above for Land Force Headquarters, but in relation to the air environment.

Air Headquarters is located at the RAAF's Operational Command Headquarters at Glenbrook, near Sydney.

Joint Services Staff College (JSSC)

JSSC is established to prepare selected officers for senior appointments in the Department of Defence and the Services.

Australian Defence Force Academy (ADFA)

The essential aims of ADFA are to

- provide military education and training of officer cadets for the purpose of developing the professional abilities and the qualities of character and leadership that are appropriate to officers of the Defence Force; and
- provide for officer undergraduates and, by way of foundation for their careers as officers of the Defence Force, officer cadets a balanced and liberal education in a military environment.

Australian Joint Warfare Establishment (AJWE)

AJWE is established to study, develop, teach and provide advice on Australian joint operations doctrine and procedures against the background of approved joint operational concepts.

Australian Joint Maritime Warfare Centre (AJMWC)

The functions of AJMWC are to:

- develop all Australian joint maritime tactics and procedures, with the exception of those specific, specialised tactics used by ship, submarine and aircraft captains in the fighting of their units;
- teach approved maritime tactics and procedures;
- train ships and aircraft crews in joint maritime operations; and
- maintain an Australian Maritime Tactical Library.

Joint Exercise Planning Staff (JEPS)

JEPS is required to perform two main roles: exercise planning and exercise control.

The planning role requires the JEPS to be located with ready access to the major headquarters of the participating Services. The exercise control role will require the deployment of the JEPS to the exercise area where they form the nucleus of the Exercise Control Headquarters. The requirement to develop the control aspects of the exercise will assume increasing importance as overall planning progresses. The JEPS will normally need supplementation to perform the exercise control role. This is done by providing control planning staff by the Services to the JEPS and providing full manning for control headquarters and control agencies on activation.

Services Health Policy Committee

This Committee provides advice to CDF and the Secretary as appropriate on professional health matters and promotes contact between Defence health services and appropriate civilian health bodies.

STRUCTURE OF THE AUSTRALIAN DEFENCE FORCE (ADF)

The overall structure of the ADF showing its Headquarters and the channels of command to each of the Armed Services is set out graphically in Annex B.

DEFENCE MANPOWER

The tables at Annex C indicate the range of activities and occupations in which defence military and civilian manpower is involved and the personnel strengths of the permanent and reserve components of the three armed Services.

HIGHER DEFENCE COMMITTEES AND STATUTORY AUTHORITIES

An extensive committee system operates within the framework of the Department of Defence. These include the senior defence committees comprising a number of statutory and advisory committees and some 11 Defence Central committees of not less than 2 Star/Level 2 status. These are listed below together with a selection of other committees of significance to Defence.

1. Statutory Defence Committees

Council of Defence

Membership: The Minister for Defence
The Minister Assisting the Minister for Defence
Secretary, Department of Defence
Chief of the Defence Force
Chief of Naval Staff
Chief of the General Staff
Chief of the Air Staff
Secretary: CEO, Committee Secretariat (CEO CS)
Functions: To consider and discuss matters relating to the control and administration of the Defence Force, and of the respective Arms of the Defence Force, referred to the Council by the Minister.

Defence Committee

Chairman: Secretary, Department of Defence
Members: Chief of the Defence Force
Chief of the General Staff
Chief of the Air Staff
Secretary, Department of the Prime Minister and Cabinet
Secretary to the Treasury
Secretary, Department of Foreign Affairs
Invited
Members: Members may be invited from other departments and agencies
Secretary: CEO CS
Function: To advise the Minister on:
- Defence policy as a whole;
- the coordination of military, strategic, economic, financial and external affairs aspects of the defence policy;
- matters of policy or principle and important questions having a joint Service or inter-departmental defence aspect and

- such other matters having a Defence aspect as are referred to the Committee by or on behalf of the Minister.
- The Defence Committee may carry out such investigations as it thinks fit for the purpose of advising the Minister on those matters.

2. Senior Defence Committees

Chiefs of Staff Committee

Chairman: Chief of the Defence Force
 Members: Chief of Naval Staff
 Chief of the General Staff
 Chief of the Air Staff

Invited

Members: The Chiefs of Staff Committee may request persons who can assist in its deliberations to attend its meetings.

Joint

Secretaries: CEO CS and SO(0) to CDF.

Authority: Minister for Defence, through the Chief of the Defence Force.

Functions: The principal function of the Chiefs of Staff Committee is to provide advice to the CDF, including professional single Service advice, to assist him in discharging his responsibility for command of the Defence Force.

Specific functions of the Committee are to:

- provide collective professional advice to the Minister and the CDF on the military aspects of strategy, force development and operations and on the military implications of defence policy and activities; noting that under the Defence Act Section 9 (3) each member is required to advise the Minister in his own right on matters relating to his command as reflected in relevant Ministerial Directives;
- endorse military plans for approval by the CDF; and
- recommend to the CDF the allocation of forces and supporting assets to designated commanders engaged in joint or combined operations.

Defence Force Development Committee

Chairman: Secretary, Department of Defence
 Members: Chief of the Defence Force
 Chief of Naval Staff
 Chief of the General Staff
 Chief of the Air Staff

Invited

Members: The Defence Force Development Committee may invite senior department officers (civilian or Service) and representatives of other Departments, appropriate to the matter under discussion to attend its meetings. Such officers attend to assist the Committee.

Secretary: GEO CS (assisted by officers from appropriate functional areas)

Functions: - To advise the Minister for defence, in the context of strategic assessments and the most efficient use of resources, on the development of the Defence Force as a whole; and the inclusion in the Five Year Defence Program of major weapons and equipment capabilities and facilities requirements;

- to initiate and review major studies concerned with the development of the Defence Force;
- to review the Five Year Defence Program and the annual Defence Estimates;
- to review progress in the preparation of proposals and appreciations for submission to the Government;
- to review other matters of common interest to members in relation to defence science, and to exchange views.

3. Defence Central Committees

Defence Industry Policy Committee

Chairman: Chief of Capital Procurement

Members:* Deputy Chief of Defence Production
 First Assistant Secretary, Defence Industry and Material Policy
 Assistant Chief of the Defence Force (Policy)
 First Assistant Secretary, Technical Services and Logistic, Development
 First Assistant Secretary, Force Development and Analysis
 First Assistant Secretary, Programs and Budgets
 First Assistant Secretary, Defence Facilities
 First Assistant Secretary, Defence Industry Development
 First Assistant Secretary, Production Development
 Controller, External Relations, Projects and Analytical Studies Division

Advisers: *Deputy Chief(s) of Staff (when the subject matter requires)
 When specific items of business require attendance by departmental or defence Force officers, the Chairman may agree to their participation in the capacity of advisers to the Committee on those matters falling within their functional responsibilities.

Executive

Secretary: Assistant Secretary, Industry Policy and Planning

Functions: - To assist in the formulation of Defence requirements for industrial support;
 - to assist in the formulation of policies for the establishment, maintenance, rationalisation and cooperation of industrial capabilities to meet the Defence requirements;
 - to review the implications for industrial capacity and activity of Defence procurement projects;
 - to examine proposals for changes to defence production and industry support capabilities, consider priorities and develop an integrated program having regard to the resources available and the volume, timing and suitability to Defence workload;
 - to assist in coordinating the review of proposals for resources allocation for the development, maintenance and operation of the defence industry capabilities in the private sector, including examination of, and advice on bids for inclusion in the Five Year Defence Program and the annual budgets.

Defence Conditions of Service Committee

Chairman: Deputy Secretary A

Members: Chief of Naval Personnel
 Chief of Personnel - Army
 Chief of Air Force Personnel
 First Assistant Secretary, Industrial
 First Assistant Secretary, Education and Employment Division,
 Department of Finance

Secretary: Staff Officer Secretariat, Industrial Division

Function: To consider major issues concerning rates of pay and financial conditions of service of personnel for the Defence Force as a basis for recommendations to the Minister for Defence.

Consultative Group

Chairman: Deputy Secretary B (or other appropriate Deputy Secretary)

Members: Chief of Defence Production
 Deputy Secretary A
 Chief of Capital Procurement
 Deputy Secretary C
 Chief of Supply and Support
 Assistant Chief of Defence Force Staff (Policy)
 Deputy Chief of Naval Staff
 Deputy Chief of the General Staff
 Deputy Chief of the Air Staff
 Deputy Chief Defence Scientist
 First Assistant Secretary, Programs and Budgets
 First Assistant Secretary, Force Development and Analysis

Secretary: SEO Committee Secretariat (assisted by officers from the functional areas appropriate to the agenda items)

Functions: To review the draft Five Year Defence Program and annual draft Defence Estimates proposals and to make recommendations to the Defence Force Development Committee.

Force Structure Committee

Chairman: Deputy Secretary B

Members: Assistant Chief of the Defence Force (Policy)
 Chief of Naval Operational Requirements and Plans
 Chief of Operations - Army
 Chief of Air Force Operations and Plans
 Deputy Chief Defence Scientist
 First Assistant Secretary, Force Development and Analysis
 First Assistant Secretary, Programs and Budgets
 First Assistant Secretary, Defence Industry and Materiel Policy
 First Assistant Secretary, Strategic and International Policy
 First Assistant Secretary, Defence and Government Division,
 Department of Finance

Invited

Members: Chief of Defence Production's representative

Secretary: AS Project Development Branch

Function: To provide advice to the Defence Force Development Committee and to participate in decision making on the development of the force structure, Five Year Defence Program and major equipment proposals and to keep these matters under review.

Defence Facilities Policy Committee

Chairman: Chief of Supply and Support

Members: Assistant Chief of the Defence Force (Policy)
 Deputy Chief of Naval Staff
 Chief of Logistics - Army
 Chief of Air Force Operations and Plans
 First Assistant Secretary, Strategic and International Policy
 First Assistant Secretary, Force Development and Analysis
 First Assistant Secretary, Programs and Budgets
 First Assistant Secretary, Commercial Services (ODP)
 Superintendent, Science Programs and Administration
 First Assistant Secretary, Defence Facilities

Secretary: SEO Defence Facilities Policy

Function: Advise on policies, programs, and resources for the development, location, use and maintenance of Defence facilities, having regard to Defence policies, objectives and priorities. Initiate and report on studies of aspects of Defence facilities including:

- longer-term planning of facilities,
- reviews of the location of facilities,
- methods of determining requirements for, or disposal of, facilities,
- significant facilities proposals,
- relationships between Defence and civil infrastructure.

Defence Science and Technology Committee

Chairman: Chief Defence Scientist

Members: Assistant Chief of the Defence Force (Policy)
 Deputy Chief of Defence Production
 Chief of Naval Operational Requirements and Plans
 Deputy Chief of the General Staff
 Deputy Chief of the Air Staff
 Deputy Chief Defence Scientist
 Controller, External Relations, Projects and Analytical Studies
 Director of a major DSTO Laboratory
 First Assistant Secretary, Force Development and Analysis
 First Assistant Secretary, Programs and Budgets

Joint

Secretaries: SEO Committee Secretariat and an officer from DSTO, Organisation

Functions: - Determine the broad employment of DSTO resources in accordance with defence policy objectives and advise the Secretary, CDF, Chief Defence Scientist and other higher authorities.

- Advise on DSTO policy guidance, statement of objectives and activities, draft estimates and other policy and planning matters as they arise.

Computing Services Policy Committee

Chairman: Deputy Secretary C

Members: Deputy Secretary A
 Chief of Defence Production
 Chief of Capital Procurement
 Deputy Chief Defence Scientist
 Chief of Supply and Support
 Assistant Chief of the Defence Force (Policy)
 Deputy Chief of Naval Staff

Deputy Chief of the General Staff
Deputy Chief of the Air Staff

Executive First Assistant Secretary, Computing Services
Member: First Assistant Secretary, Programs and Budgets
Invited Chief of Supply and other division heads attend as appropriate

Members:

Secretary: SEO Committee Secretariat (assisted by Group Leader, User Requirements, Computing Services Division)

Functions: - to consider and recommend policy relating to administrative computing resources;
 - to coordinate Defence requirements for administrative computing resources and allocate priorities;
 - to review as appropriate performance of administrative computing systems and services; and
 - to review at appropriate stages the development and implementation of administrative computing systems, including GO/NO-GO decisions at each stage.

Defence Operational Requirements Committee

Chairman: Assistant Chief of the Defence Force (Policy)

Members: Chief of Naval Operational Requirements and Plans
 Chief of Operations - Army
 Chief of Air Force Operations and Plans
 Controller, External Relations Projects and Analytical Studies
 First Assistant Secretary, Force Development and Analysis
 *First Assistant Secretary, Programs and Budgets
 *First Assistant Secretary, Strategic and International Policy
 *First Assistant Secretary, Defence Industry and Materiel Policy

* Members may attend when matters affecting their responsibilities are to be discussed.

Secretary: SEO Committee Secretariat (assisted by an Officer from the Staff of Assistant Chief of the Defence Force (Policy))

Functions: - The consideration of Staff Objectives and Staff Targets likely to become the subject of major equipment submissions and their endorsement for further definition and development.
 - The consideration, review and endorsement of Staff Requirements for major equipments and, when appropriate, their submission for further consideration by the Chiefs of Staff Committee.

Joint Planning Committee (JPC)

Chairman: Assistant Chief of the Defence Force (Operations)

Members: Director General Naval Plans and Policy
 Director General Operations and Plans - Army
 Director General Policy and Plans - Air Force
 Assistant Secretary, Strategic Guidance and Policy
 Representative of CDS (optional)
 Assistant Secretary, Defence Policy Branch, Department of Foreign Affairs (optional)

Invited

Members: The JPC may call for other officers (military or civilian) to attend and, as appropriate, invite other Departments to send a representative.

Joint

Secretaries: SEO Committee Secretariat and an appropriate JMOP Staff Officer

Functions: To advise the Defence Committee and/or Chief of the Defence Force/Chiefs of Staff Committee on:

- a. operational aspects of Defence planning;
- b. appreciations and plans for combined and joint operations; and
- c. coordination of joint service exercises and training.

Defence Communications Systems User Committee (DCSUC)

Chairman: Assistant Chief of the Defence Staff (Operations)

Members: Chief of Naval Operational Requirements and Plans
Chief of Operations - Army
Chief of Air Force Operations and Plans
First Assistant Secretary, Industrial

Executive

Member: General Manager, Defence Communications Systems (GMDCS)

Joint

Secretaries: SEO Committee Secretariat
Officer from DSC Division

Functions: To provide a forum for consultation on strategic communications policy and related issues which may be referred to it by other Committees, Defence Central staffs or the Services. Specifically, the DCSUC is to:

- Advise GMDCS and others as required on the planning, programming and development of strategic communications systems including their interface with tactical networks.
- Review and endorse Joint Staff Objectives, Targets, and Requirements on strategic communications at appropriate stages of progression.
- Consider major submissions on strategic communications equipment, and systems before reference to the Force Structure Committee and consider and advise Defence Central on Minor Capital communications equipment items.
- Examine FYDP and annual estimates bids for strategic communications and make programming recommendations to the Consultative Group.
- Consider and endorse DISCON user requirements on the basis for the ongoing planning, programming and implementation of DISCON by GMDCS.

Services Personnel Policy Committee

Chairman: Rotates between the Service members of the Committee

Members: Chief of Naval Personnel
Chief of Personnel - Army
Chief of Air Force Personnel
First Assistant Secretary, Personnel Administration and Policy

Secretary: Provided by Service Personnel Policy Branch (PS-2)
 Functions: - to develop proposals and provide advice to the Chiefs of Staff Committee on matters of Service personnel policy other than rates of pay and financial conditions of service;
 - to consider other matters as may be referred by the Chiefs of Staff Committee.

Defence Source Definition Committee (DSDC)

Chairman: First Assistant Secretary, Defence Industry and Materiel Policy
 Members: Appropriate Chief of Materiel
 First Assistant Secretary, Technical Services and Logistic Development
 Superintendent Major Projects - External Relations Projects and Analytical Studies Division
 Assistant Secretary, Resources Policy
 Assistant Secretary, Project Development
 Assistant Secretary, Purchasing (Major Contracts)
 Executive Member: Assistant Secretary Project Planning and Evaluation
 Invited Members: First Assistant Secretary, Defence Industry Development Representative, Chief of Defence Protection
 Senior Assistant Secretary (Contracts)
 - Attorney General's Department
 Secretary: Principal Executive Officer, Project Support
 Functions: - Formulate recommendations to the Defence Force Development Committee (DFDC) or to the Minister, as appropriate, on the preferred source of supply of items of major and selected minor equipment to be acquired by the Department of Defence.
 - Provide the focus in the Departmental acquisition process for the identification of the range of contractual, policy, technical and other factors which need to be taken into account in planning for the effective, proper and orderly procurement of items of capital equipment.
 - Endorse, for all major and selected minor projects, formal Equipment Acquisition Strategies to provide authority, direction and coordination to the range of procurement-related actions necessary to complete a timely acquisition.

4. Other Statutory and Advisory Committees, Councils, etc.:

Australian Defence Force Academy (ADFA) Council

Functions: The ADFA Council is to:
 - advise the Minister on the development and operation of ADFA; and
 - advise the University of NSW on matters relating to the development and operation of ADFA with particular reference to policy, current activities and future operations.

Defence Force Remuneration Tribunal

Chairman: A presidential member of the Australian Conciliation and Arbitration Commission
 Members: A person experienced in industrial relations matters
 A person who has been a member of the Defence Force

- Functions: - Inquire into and determine the salaries and relevant allowances to be paid to members;
 - inquire into and make recommendations in respect of prescribed matters that have been referred to the Tribunal.

Defence Industry Committee

- Functions: - To consider matters concerning the capacity of Australian industry to contribute to the defence requirements of the country.
 - To make recommendations when appropriate for the retention of existing capacity or the development of new capacity in the light of Department of Defence assessments of requirements.
 - To provide guidelines to allow industry to prepare for meeting the requirements of the Defence Force during periods of threat or of war at varying levels of intensity and duration.
 - To give financial and management advice to the Department of Defence and the Services on questions referred to it.
 - To advise on stockholding of strategic materials.
 - To consider questions relating to the Defence Cataloguing System, and equipment standardisation.
 - To oversight the Industrial Mobilisation Course.
 - To report annually to the Minister for Defence on its activities.

Executive Committee Industrial Mobilisation Course

Chairman: Chief of Capital Procurement

Members: Chief of Naval Technical Services
 Chief of Army Materiel
 Chief of Air Force Technical Services
 Chief of Supply

Executive

Members: Director General, Training and Education Policy
 Director of Studies, Industrial Mobilisation Course

Secretary: SEO, Industry Policy and Planning Branch (Secretary, D (I) C)

Functions: As sub-committee of Defence Industry Committee, administration of the Industrial Mobilisation Course.

Technical Works Committee

Functions: To review such works as are referred to the Committee by the Department of Defence and report on the efficiency and effectiveness of the design solution as related to the user requirement.

Services Health Policy Committee

Chairman: Rotates through membership of committee

Members: Director General of Navy Health Services
 Director General of Army Health Services
 Director General of Air Force Health Services

Secretary: SO1 to Services Health Policy Committee Secretariat

Functions: - To coordinate and review health matters applicable to the Defence Force and to develop common Health Services policy where applicable or necessary.
 - Provide advice to CDF and the Secretary as appropriate on health matters.

- Promote contact between Defence Health Services and appropriate civilian health bodies.

State Territory Emergency Services Directors Conference

Chairman: Director General, Natural Disasters Organisation
 Members: Director, Australian Counter Disaster College
 Directors (equivalent) of States/Territories Emergency Services
 Secretary: Provided by Natural Disasters Organisation
 Functions: To provide a forum for discussion between Commonwealth and State/Territory officials on matters of mutual interest relating to counter disaster, including civil defence planning and preparedness.

Emergency Broadcasting Committee

Chairman: Director General, Natural Disasters Organisation

Membership: Representatives from:
 Joint Communications Staff, Department of Defence
 Department of Administrative Services
 Department of Communications
 Australian Broadcasting Control Board
 Australian Telecommunications Commission

Coopted

Members: Representatives from:
 Australian Broadcasting Commission
 Commercial Broadcasting and Television Federations
 Secretary: EO (Communications) Natural Disasters Organisation
 Functions: To review existing broadcasting facilities and recommend what additional facilities, if any, would be required to maintain broadcasting communications following a major disaster arising from civil defence or natural causes.

Army and Air Force Canteens Service (AAFCANS) Board of Management

Functions: To control and conduct the operations of AAFCANS in accordance with the regulations

Services Canteens Trust Fund

Functions: To provide for the relief of distress amongst needy ex-servicemen and women and their dependents and for the provision of financial assistance with the education of their children.

Executive Secretariat to the Defence Press and Broadcasting Committee

Executive

Secretary: Assistant Secretary Coordination and Liaison

Associates: Director of Public Relations
 Assistant Director of Public Relations

Functions: To administer the 'D' Notice system and to provide advice to the media, in consultation with the appropriate authorities, on enquiries about matters which fall within the range of subjects covered by 'D' Notices.

Miscellaneous Committees

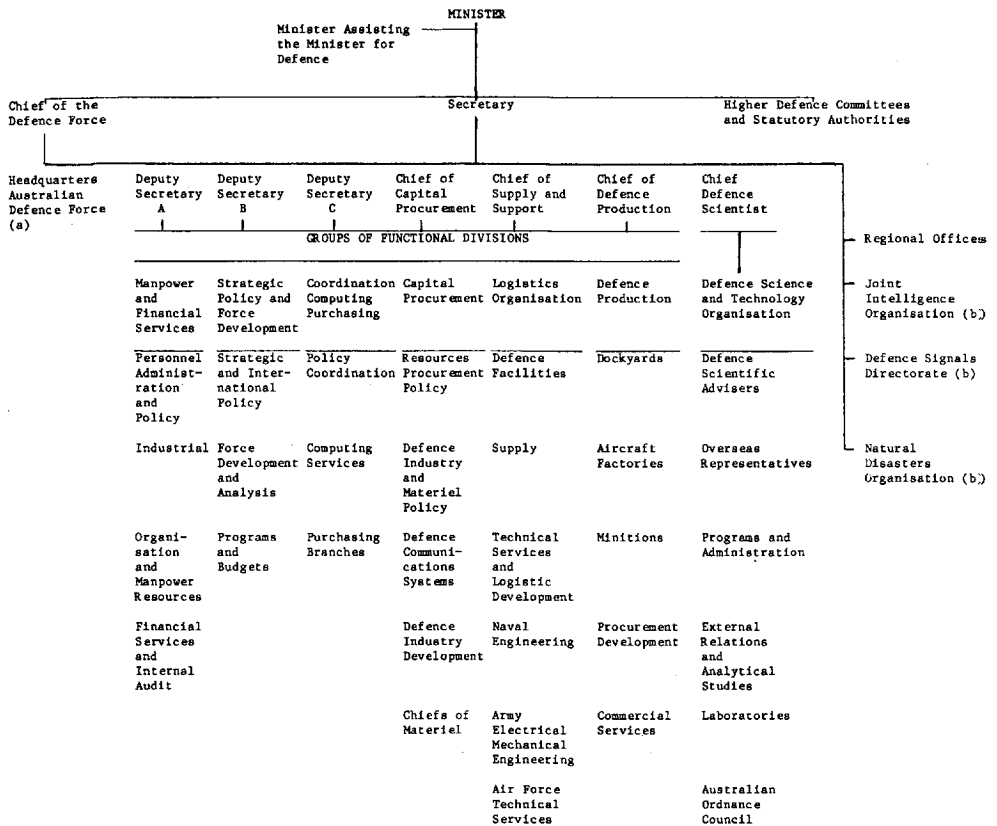
There are numerous Inter-Departmental Committees (IDCs) involving Department of Defence participation. These include, for example:

- Study Group on Future Coastal Surveillance Needs
- Commonwealth Explosives Transport Committee

- Woomera Support Area Advisory Committee (WSAAC)
- Secretaries Committee on Intelligence and Security (SCIS)

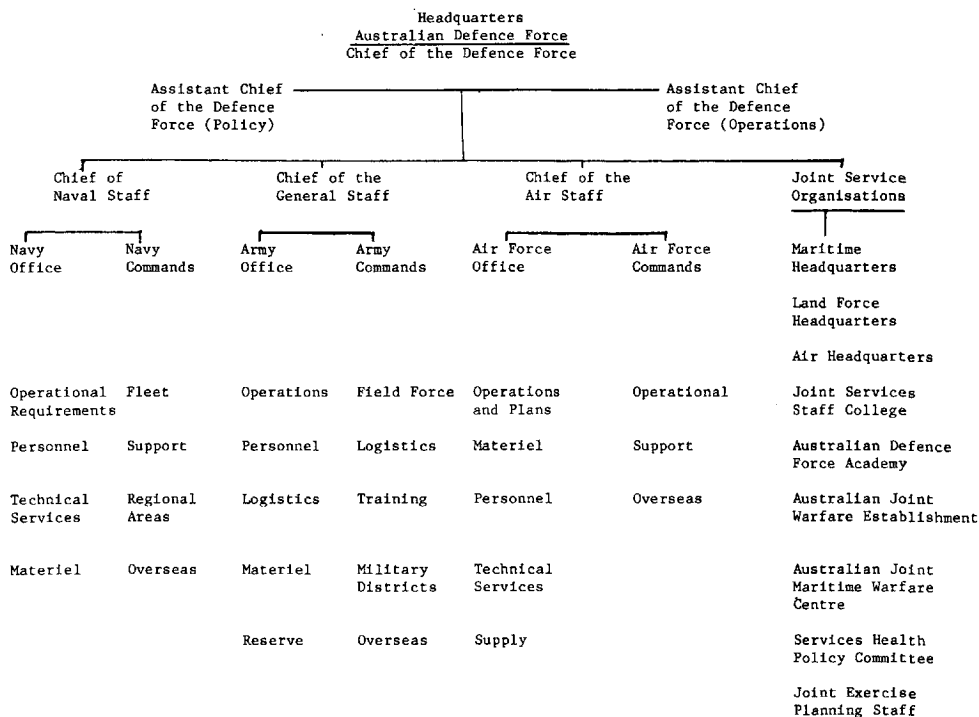
In addition, there are some 48 Service Committees of not less than 1 Star Status. Details of these are appended to the sections in the Compendium dealing with the individual Services.

ANNEX A TO PART THREE DEFENCE HIGHER ORGANISATION



Notes: (a) See Annex B
(b) Outrider Organisations

ANNEX B TO PART THREE
HEADQUARTERS AUSTRALIAN DEFENCE FORCE



**ANNEX C TO PART THREE
DEFENCE MANPOWER**

Source: Department of Defence, Defence Report 1984-85
(AGPS, Canberra 1985).

Functional distribution of permanent service personnel and civilian staff as at 30 June 1985

<i>Function</i>	<i>Service</i>	<i>Civilian^(a)</i>	<i>Total</i>
Navy			
Fleet Headquarters	196	4	200
Submarine Force	311	—	311
Destroyer Force	3 093	—	3 093
Naval Aviation Force	390	—	390
Afloat Support Force	541	—	541
Patrol Boat Force	369	—	369
Mine Counter measures Force	32	—	32
Clearance Diving Force	116	—	116
Amphibious Force	214	—	214
Sea Training Force	478	—	478
Marine Science Force	327	74	401
Supply	152	1 821	1 973
Support Establishments/Bases	2 371	414	2 785
Communications	568	15	583
Joint Service Units	139	4	143
Miscellaneous Support	43	690	733
Hospitals	166	10	176
Bands	81	—	81
Shore Training Establishments	3 893	519	4 412
Reserves	47	—	47
Area Administration	1 544	282	1 826
Policy and Administrative Support Group	606	1 094	1 700
Army			
Army Command and Control	2 393	838	3 231
Field Force Command and Control	611	37	648
Field Force Combat	6 398	33	6 431
Field Force Combat Support	2 288	—	2 288
Field Force Logistic Support	3 479	45	3 524
Army Logistic Support	3 955	3 411	7 366
Individual Training	3 748	727	4 475
District Support	3 419	1 239	4 658
ARA Reserve Support	1 493	—	1 493
Army, Joint and other Defence	455	—	455
Manpower not related to establishments	3 607	34	3 641

<i>Function</i>	<i>Service</i>	<i>Civilian^(a)</i>	<i>Total</i>
Air Force			
Operations — Strike Reconnaissance	867	8	875
Operations — Tactical Fighter	1 807	7	1 814
Operations — Maritime	891	10	901
Operations — Air Space Surveillance and Control	325	1	326
Operations — Rotary Wing Transport	633	—	633
Operations — Fixed Wing Transport	1 227	1	1 228
Operations — Photo Survey	—	—	—
Operations — Local Support	4 293	434	4 727
Operations — Activity Management	312	42	354
Reserves	50	—	50
Force Support — Ground Training	2 918	58	2 976
Force Support — Flying Training	1 030	3	1 033
Force Support — Logistics	2 905	985	3 890
Force Support — Activity Management	1 237	646	1 883
Force Support — Miscellaneous	1 168	121	1 289
Local Support — Training and Logistics	1 852	198	2 050
Force Planning and Policy	674	145	819
Department of Defence			
Defence Central ^(b)	1 569	5 017	6 586
DSTO	52	4 322	4 374
Office of Defence Production			
Shipbuilding	46	5 380	5 426
Aerospace	3	2 361	2 364
Munitions	—	6 060	6 060
Administration	—	1 181	1 181
Total	71 382	38 271	109 653

Note: (a) Civilian figures include only full—time operatives and exclude locally engaged civilians overseas, persons on extended leave and part—time staff.

(b) See Table 2 for organizational distribution of Defence manpower.

Organisational distribution of Defence manpower as at 30 June 1985

<i>Manpower distribution</i>	<i>Service</i>	<i>Civilian^(a)</i>	<i>Total</i>
Under the Secretary, Department of Defence			
Manpower and Financial Services	237	2 077	2 314
Strategic Policy and Force Development	6	98	104
Office of Defence Production	49	14 982	15 031
Capital Procurement	187	27	214
Defence Logistics	131	466	597
Defence Science and Technology	52	4 322	4 374
Policy Co-ordination/Computing			
Services/Defence Purchasing	82	144	226
Regional Offices	5	1 340	1 345

<i>Function</i>	<i>Service</i>	<i>Civilian^(a)</i>	<i>Total</i>
Under the Chief of the Defence Force			
Headquarters, ADF	267	82	349
Navy	15 677	4 927	20 604
Army	31 846	6 364	38 210
Air Force	22 192	2 659	24 851
Outrider organisations of the Department of Defence			
	351	783	1 134
Total	71 382	38 271	109 653

Note: (a) Civilian figures include full-time operatives and exclude locally engaged civilians overseas, persons on extended leave and part-time staff.

Analysis of staff employed in the Office of Defence Production — 30 June 1985

	<i>A.C.T.</i>	<i>Vic.</i>	<i>N.S.W.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>N.T.</i>	<i>Tas</i>	<i>O/s</i>	<i>Total</i>
Aircraft Factories										
• Apprentices			162							162
• Industrial			1010							1010
• Non-Industrial			1110							1110
										<u>2282</u>
Dockyards										
• Apprentices			163	402						565
• Industrial			1141	1695						2836
• Non-Industrial			681	1298						1979
										<u>5380</u>
Munitions Factories										
• Apprentices			326	178		2				506
• Industrial			2166	1122		18				3306
• Non-Industrial			1110	578		9				1697
										<u>5509</u>
Clothing Factory										
• Apprentices			3							3
• Industrial			541							541
• Non-Industrial			86							86
										<u>630</u>
Corporate Services										
• Industrial			3							3
• Non-Industrial	436	433	193	17	82	14	—	—	3	1178
										<u>1181</u>

Notes: 1. Industrial Employees are employed under the Supply and Development Act and the Naval Defence Act.
2. Non-Industrial employees are employed under the Public Service Act.

Distribution of permanent service personnel and civilian staff^(a) by location of permanent employment as at 30 June 1985

	<i>Qld N.S.W.</i>		<i>Vic.</i>	<i>S.A.</i>	<i>W.A.</i>	<i>N.T.</i>	<i>Tas.</i>	<i>A.C.T.</i>	<i>O/s^(b)</i>	<i>Total</i>
Navy ^(c)	717	9 065	2 621	57	983	580	31	1 764	241	16 059
Army ^(c)	10 061	9 024	7 512	1 047	1 341	138	226	2 783	328	32 460
Air Force	3 461	7 102	5 014	2 220	1 081	954	14	1 873	114	22 863
Civilians	1 582	11 654	15 938	3 601	411	158	121	4 670	136	38 271

- Notes: (a) Locally engaged civilians supporting military deployments overseas are not included.
(b) These figures include only those personnel posted overseas for long term duty. Personnel on short term duty overseas are shown in the State column of the organisation in which they are permanently employed.
(c) Personnel serving in ships are shown in the column for the State in which the ship is base ported.

Australian Defence Force: permanent service personnel^(a) by sex as at 30 June 1981 to 1985.

	<i>Navy</i>		<i>Army</i>		<i>Air Force</i>		<i>Total</i>	
	<i>Number</i>	<i>% of Total</i>	<i>Number</i>	<i>% of Total</i>	<i>Number</i>	<i>% of Total</i>	<i>Number</i>	<i>% of Total</i>
1981								
Men	16 283	94.1	31 112	94.6	20 797	93.2	68 192	94.0
Women	1 015	5.9	1 786	5.4	1 525	6.8	4 326	6.0
Total	17 298	100.0	32 896	100.0	22 322	100.0	72 518	100.0
1982								
Men	16 443	93.4	30 998	94.3	21 067	92.8	68 508	93.6
Women	1 155	6.6	1 878	5.7	1 644	7.2	4 677	6.4
Total	17 598	100.0	32 876	100.0	22 711	100.0	73 185	100.0
1983								
Men	16 116	93.7	31 174	94.3	21 002	93.3	68 292	93.8
Women	1 082	6.3	1 898	5.7	1 510	6.7	4 490	6.2
Total	17 198	100.0	33 072	100.0	22 512	100.0	72 782	100.0
1984								
Men	15 693	94.0	30 315	93.9	20 961	92.5	66 969	93.5
Women	999	6.0	1 963	6.1	1 711	7.5	4 673	6.5
Total	16 692	100.0	32 278	100.0	22 672	100.0	71 642	100.0
1985								
Men	14 974	93.2	30 462	93.8	20 985	91.8	66 421	93.1
Women	1 085	6.8	1 998	6.2	1 878	8.2	4 961	6.9
Total	16 059	100.0	32 460	100.0	22 863	100.0	71 382	100.0

Note: (a) Includes Reserve personnel on full time duty but excludes non-effective personnel who have been taken off strength.

**Australian Defence Force: permanent service personnel by sex and category^(a)
as at 30 June, 1981 to 1985**

	<i>Navy</i>		<i>Army</i>		<i>Air Force</i>		<i>Total</i>	
	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>
1981								
Officers	2064	90	4169	280	3313	213	9546	583
Other Ranks	13136	894	25648	1479	16635	1289	55419	3662
Apprentices	666	—	818	—	441	—	1925	—
Cadets	417	31	477	27	408	23	1302	81
Total	16283	1015	31112	1786	20797	1525	68192	4326
1982								
Officers	2076	104	4159	299	3411	222	9646	625
Other Ranks	13303	1013	25461	1558	16739	1394	55503	3965
Apprentices	687	—	908	—	408	—	2075	—
Cadets	377	38	470	21	437	28	1284	87
Total	16443	1155	30998	1878	21067	1644	68508	4677
1983								
Officers	2121	110	4215	320	3396	191	9732	621
Other Ranks	12987	937	25822	1547	16633	1285	55442	3769
Apprentices	650	—	643	—	506	—	1799	—
Cadets	358	35	494	31	467	34	1319	100
Total	16116	1082	31174	1898	21002	1510	68292	4490
1984								
Officers	2117	127	4197	335	3384	225	9698	687
Other Ranks	12603	844	25006	1586	16539	1446	54148	3876
Apprentices	645	7	603	6	569	—	1817	13
Cadets	328	21	509	36	469	40	1306	97
Total	15693	999	30315	1963	20961	1711	66969	4673
1985								
Officers	2074	129	4203	357	3399	264	9676	750
Other Ranks	12037	930	25292	1612	16597	1562	53926	4104
Apprentices	542	9	547	11	513	2	1602	22
Cadets	321	17	420	18	476	50	1217	85
Total	14974	1085	30462	1998	20985	1878	66421	4961

Note: (a) Includes Reserve personnel on full time duty but excludes non-effective personnel who have been taken off strength.

**Australian Defence Force: permanent service personnel^(a) — percentage in
category by sex as at 30 June, 1981 to 1985**

	<i>Navy</i>		<i>Army</i>		<i>Air Force</i>		<i>Total</i>	
	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>
1981								
Officers	12.7	8.9	13.4	15.7	15.9	14.0	14.0	13.5
Other Ranks	80.7	88.1	82.4	82.8	80.0	84.5	81.3	84.7
Apprentices	4.1	—	2.6	—	2.1	—	2.8	—
Cadets	2.6	3.1	1.5	1.5	2.0	1.5	1.9	1.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

	<i>Navy</i>		<i>Army</i>		<i>Air Force</i>		<i>Total</i>	
	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>
1982								
Officers	12.6	9.0	13.4	15.9	16.2	13.5	14.1	13.4
Other Ranks	80.9	87.7	82.1	83.0	79.5	84.8	81.0	84.8
Apprentices	4.2	—	2.9	—	2.3	—	3.0	—
Cadets	2.3	3.3	1.5	1.1	2.1	1.7	1.9	1.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1983								
Officers	13.2	10.2	13.5	16.9	16.2	12.6	14.3	13.8
Other Ranks	80.6	86.6	82.8	81.5	79.2	85.1	81.2	83.9
Apprentices	4.0	—	2.1	—	2.4	—	2.6	—
Cadets	2.2	3.2	1.6	1.6	2.2	2.3	1.9	2.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1984								
Officers	13.5	12.7	13.8	17.1	16.1	13.2	14.5	14.7
Other Ranks	80.3	84.5	82.5	80.8	78.9	84.5	80.9	82.9
Apprentices	4.1	0.7	2.0	0.3	2.7	—	2.7	0.3
Cadets	2.1	2.1	1.7	1.8	2.2	2.3	2.0	2.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1985								
Officers	13.9	11.9	13.8	17.9	16.2	14.1	14.6	15.1
Other Ranks	80.4	85.7	83.0	80.7	79.1	83.2	81.2	82.7
Apprentices	3.6	0.8	1.8	0.5	2.4	0.1	2.4	0.4
Cadets	2.1	1.6	1.4	0.9	2.3	2.7	1.8	1.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes: Any discrepancies between totals and sums of components are due to rounding.

(a) Includes Reserve personnel on full time duty but excludes non-effective personnel who have been taken off strength.

Australian Defence Force: Numbers of Reserve Service Personnel^(a) at 30 June, 1981 to 1985

<i>Year</i>	<i>Navy</i>	<i>Army</i>	<i>Air Force</i>	<i>Total</i>
1981	1 021	31 125	591	32 737
1982	1 094	31 706	873	33 673
1983	1 204	33 227	1 178	35 609
1984	1 220	29 021	1 608	31 849
1985	1 135	23 846	1 353	26 334

Note: (a) Reserves with training obligations.

Functional distribution of Army Reserve Personnel as at 30 June 1985

<i>Function</i>	<i>ARES Personnel</i>
ARES Field Force Command and Control	296
ARES Field Force Combat	10 030
ARES Field Force Combat Support	2 429
ARES Field Force Logistic Support	4 904
ARES Army Logistic Support	361
ARES Individual Training	4 491
ARES District Support	662
ARES Other/Miscellaneous	549
Total	23 722

Department of Defence Civilian Staff ^(a) as at 30 June 1981 to 1985

	<i>Full Time Number</i>	<i>% of Total</i>	<i>Part Time Number</i>	<i>% of Total</i>	<i>Inoperative^(b) Number</i>	<i>% of Total</i>	<i>Total Number</i>	<i>% of Total</i>
1981								
Men	22990	78.8	101	25.1	353	50.0	23444	77.4
Women	6192	21.2	301	74.9	353	50.0	6846	22.6
Total	29182	100.0	402	100.0	706	100.0	30290	100.0
1982 ^(c)								
Men	13908	71.9	110	27.8	257	43.5	14275	70.4
Women	5447	28.1	286	72.2	334	56.5	6067	29.8
Total	19355	100.0	396	100.0	591	100.0	20342	100.0
1983 ^(d)								
Men	17512	74.1	112	27.3	277	43.6	17901	72.6
Women	6116	25.9	299	72.7	358	56.4	6773	27.4
Total	23628	100.0	411	100.0	635	100.0	24674	100.0
1984								
Men	17308	73.7	113	27.6	294	41.9	17715	72.0
Women	6177	26.3	297	72.4	407	58.1	6881	28.0
Total	23485	100.0	410	100.0	701	100.0	24596	100.0
1985 ^(e)								
Men	29042	75.9	133	36.1	798	46.8	29973	74.3
Women	9229	24.1	235	63.9	908	53.2	10372	25.7
Total	38271	100.0	368	100.0	1706	100.0	40345	100.0

Notes: (a) Excludes locally engaged civilians supporting military deployments overseas, of which there were:

1980-81 — 1212, 1981-82 — 1216, 1982-83 — 1134, 1983-84 — 939 and 1984-85 — 831

(b) Staff on leave for 12 weeks or more.

(c) 1981-82 figures have been reduced by 9635 full time operatives, eleven part time staff and 111 inoperative staff transferred to the Department of Defence Support.

(d) Includes 4263 DSTO personnel transferred from the Department of Defence Support on 11 March 1983.

(e) Includes 14982 personnel transferred from the Department of Defence Support during 1984-85.

	<u>Navy</u>		<u>Army</u>		<u>Air Force</u>		<u>Total</u>	
	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>
1983-84								
Officers	1.9	8.7	1.2	7.2	2.0	45.8	1.6	20.1
Other Ranks	5.4	4.7	6.5	17.5	4.8	21.8	5.7	16.3
Apprentices	27.3	100.0	42.5	100.0	41.1	—	36.7	100.0
Cadets	32.0	33.3	47.3	77.8	42.4	52.5	41.7	57.7
Total	6.4	6.5	7.2	17.1	6.1	25.7	6.7	18.0
1984-85								
Officers	1.5	3.9	2.0	5.9	2.7	27.3	2.1	13.1
Other Ranks	5.0	24.2	11.7	20.8	5.5	23.3	8.3	22.5
Apprentices	26.6	—	45.7	81.8	39.8	100.0	37.3	50.0
Cadets	35.2	47.1	39.8	72.2	38.0	52.0	37.9	53.3
Total	5.9	21.9	11.3	19.0	6.6	24.7	8.6	21.8

Notes: All figures represent total enlistment for category expressed as a percentage of strength for that category at 30 June of the financial year eg. *female officer enlistment for year x 100 = percentage 30 June female officer strength* !
Figures include Reserves on full-time duty.

Australian Defence Force: recruiting activity 1984-85.

	<i>Navy</i>	<i>Army</i>	<i>Air Force</i>	<i>Total^(a)</i>
Total Enquiries	28 342	64 730	47 021	140 093
Formal Applications	5 685	16 106	12 013	33 804
Applicants Interviewed	4 886	15 039	9 294	29 219
Applications Rejected	3 220	8 842	8 293	20 365
Applicants Enlisted ^(b)	1 149	3 837	1 814	6 800

- (a) Minor variations on final enlistment figures given in Table 9 occur due to varied cut-off dates between recruitment and receiving unit returns.
(b) The difference in the figures of those not rejected and the final number of applicants enlisted results from:
— those applicants who failed to report;
— those applicants who were cleared but were wait-listed for vacancies; and
— those applicants undergoing suitability screening.

Australian Defence Force: 1980-81 to 1984-85: Wastage^(a) during the year

	<u>Navy</u>		<u>Army</u>		<u>Air Force</u>		<u>Total</u>	
	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>
1980-81								
Officers	138	28	261	27	259	33	658	88
Other Ranks ^(b)	1564	183	3378	307	1465	417	6407	907
Cadets	83	7	87	15	56	3	226	25
Total	1785	218	3726	349	1780	453	7291	1020

	<i>Navy</i>		<i>Army</i>		<i>Air Force</i>		<i>Total</i>	
	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>
1981-82								
Officers	143	19	298	23	220	40	661	82
Other Ranks ^(b)	1619	166	3398	273	1384	376	6401	815
Cadets	76	2	86	7	49	1	211	10
Total	1838	187	3782	303	1653	417	7273	907
1982-83								
Officers	131	19	208	22	181	48	520	89
Other Ranks ^(b)	1445	179	2914	273	1073	345	5432	797
Cadets	49	5	80	6	86	2	215	13
Total	1625	203	3202	301	1340	395	6167	899
1983-84								
Officers	172	15	270	38	237	64	679	117
Other Ranks ^(b)	1291	175	2646	258	1036	277	4973	710
Cadets	44	5	117	3	77	3	238	11
Total	1507	195	3033	299	1350	344	5890	838
1984-85								
Officers	191	20	264	29	252	61	707	110
Other Ranks ^(b)	1635	171	3109	272	1155	341	5899	784
Cadets	47	1	94	2	62	—	203	3
Total	1873	192	3467	303	1469	402	6809	897

Notes: (a) Permanent service personnel actually taken off strength during the year.

(b) Includes apprentices.

Australian Defence Force 1980-81 to 1984-85: wastage as a percentage of end of financial year strengths^(a) during the year

	<i>Navy</i>		<i>Army</i>		<i>Air Force</i>		<i>Total</i>	
	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>
1980-81								
Officers	6.7	31.1	6.3	9.6	7.8	15.5	6.9	15.1
Other Ranks ^(b)	11.3	20.5	12.8	20.8	8.6	32.4	11.2	24.8
Cadets	19.9	22.6	18.2	55.6	13.7	13.0	17.4	30.9
Total	11.0	21.5	12.0	19.5	8.6	29.7	10.7	23.6
1981-82								
Officers	6.9	18.3	7.2	7.7	6.4	18.0	6.9	13.1
Other Ranks ^(b)	11.6	16.4	12.9	17.5	8.0	27.0	11.1	20.6
Cadets	20.2	5.3	18.3	33.3	11.2	3.6	16.4	11.5
Total	11.2	16.2	12.2	16.1	7.8	25.4	10.6	19.4
1982-83								
Officers	6.2	17.3	4.9	6.9	5.3	25.1	5.3	14.3
Other Ranks ^(b)	10.6	19.1	11.0	17.6	6.3	26.8	9.5	21.1
Cadets	13.7	14.3	16.2	19.4	18.4	5.9	16.3	13.0
Total	10.1	18.8	10.3	15.9	6.4	26.2	9.0	20.0

Australian Defence Force 1980-81 to 1984-85: wastage of permanent officers during the year

	1980-81		1981-82		1982-83		1983-84		1984-85	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Age for retirement	42	2	39	1	32	1	52	2	49	4
Resignation: Full pension										
— Five years or less from age for retirement	105	0	131	0	110	2	116	1	97	0
— More than five years from age for retirement	49	1	77	0	39	0	77	0	7	0
Resignation: partial pension										
— Ten years or less from age for retirement	62	1	75	0	58	1	85	1	89	1
— More than ten years from age for retirement	79	0	72	1	55	0	94	0	87	0
Resignation: without pension	169	15	125	19	85	17	108	33	114	26
Short service commission:										
— completion	18	9	15	5	15	6	20	3	15	2
— resignation	80	39	65	42	64	24	69	33	94	24
Other (medical, death, termination, completion of full-time duty)	54	21	62	14	62	38	58	44	91	53
Total	658	88	661	82	520	89	679	117	707	110
Average officer strength ^(a)	9488	556	9581	610	9700	621	9706	657	9655	719
Wastage as a percentage of average strength	6.9	15.8	6.9	13.4	5.4	14.3	7.0	17.8	7.3	15.3

Note: (a) Average officer strength calculated by dividing the sum of end of month officer strength for the year by 12.

PART FOUR
THE ROYAL AUSTRALIAN NAVY

ROLES

The roles of the RAN are to:

- a organise, train, equip and maintain naval forces, including naval aircraft, for timely and sustained combat operations at sea to:
 - (1) detect and destroy enemy naval forces and sea commerce,
 - (2) conduct naval offensive operations against enemy forces and installations, and
 - (3) conduct naval reconnaissance and surveillance, anti-submarine warfare, and protect shipping;
- b provide naval support for land operations;
- c provide military sea transport support for the Defence Force;
- d provide seaward defence of ports and anchorages; and
- e conduct hydrographic and oceanographic survey.

COMMAND AND CONTROL

Command of the Navy is exercised by the Chief of Naval Staff (CNS) through Navy office (Canberra). Below Navy office the Navy comprises two functional Commands - Fleet Command and Naval Support Command. In addition there is in each State a Regional Area Command.

Navy Office The organisation of Navy Office showing the channels of command and the senior appointments is as set out as follows:

MINISTER FOR DEFENCE

CHIEF OF THE DEFENCE FORCE (4 Star)

CHIEF OF NAVAL STAFF (3 Star)

SENIOR NAVY OFFICE APPOINTMENTS:

DEPUTY CHIEF OF NAVAL STAFF (2 Star)

Director General of Facilities (1 Star)

CHIEF OF NAVAL OPERATIONS AND PLANS (2 Star)

Director General of Naval Plans and Policy (1 Star)

Director General of Naval Operational Requirements (1 Star)

NAVAL SCIENTIFIC ADVISER*(c)

CHIEF OF NAVAL MATERIEL (2 Star)*

Deputy Chief of Naval Materiel (1 Star)

CHIEF OF NAVAL PERSONNEL (2 Star)

Director General of Naval Manpower (1 Star)

Director General of Naval Health Services (2 Star)

Director General of Naval Personal Services (1 Star)

Director General of Naval Training and Education (1 Star)

CHIEF OF NAVAL TECHNICAL SERVICES (2 Star)*
Director General of Naval Design (1 Star)
Director General of Fleet Maintenance (1 Star)
Director General of Naval Production (1 Star)

Director General of Supply - Navy (1 Star)*

- Notes: (i) Appointments marked (*) are 'Two hatted' appointments in which the incumbents have dual responsibilities to both the Secretary, Department of Defence and their own Chief of Staff.
(ii) Appointments marked (c) are civilian appointments.

Navy Office Committees:

Chief of Naval Staff's Advisory Committee
RAN Scientific Policy and Review Committee
The Naval Material Committee
The RAN Central Canteens Board
The RAN Relief Trust Fund Trustees
Engineering Civil Personnel Committee
Navy Metric Conversion Committee
Noise Reduction Engineering Panel
RAN Corrosion Committee
Repair and Refit Programme Committee
The RAN Staff Requirements Committee
Long Range Planning Committee
Royal Melbourne Institute of Technology Study Board
Naval Complement's Committee
Naval Mobilization Committee
Naval Health Benefits Society Committee
Machinery and Plant/Motor Transport Requirements Committee
Naval Recruiting Committee
RAN Ship Habitability Committee
RAN Uniform and Clothing Committee
RAN Relief Trust Fund Committee

For details of composition and functions of these Committees see Annex A to Part Four.

Fleet Command is located in Sydney and is vested with overall operational command of all sea-going vessels and closely related establishments ashore.

Naval Support Command is also located in Sydney and is responsible for all aspects of logistic support.

Area Commands are established regionally to provide local administrative support and in Queensland, Western Australia and Northern Territory have limited operational responsibilities, e.g. over locally based patrol boats.

ORDER OF BATTLE

The RAN Order of Battle is detailed in the Defence Report 1984/85, Appendix 1, showing type of vessel, armament, name of ship and location. In the case of the Fleet Air Arm, the type of squadron, aircraft and location are given.

Fleet A summary of the types of vessels in the Fleet is as follows:

- 3 Guided Missile Destroyers
- 4 Guided Missile Frigates
- 6 River Class Destroyers (1 due to decommission in November 1985)
- 6 Oberon Class Submarines
- 1 Minehunter
- 1 Amphibious Heavy Lift Ship
- 5 Landing Craft Heavy (3 to decommission to operational reserve in December 1985, 2 converted to survey duties, 1 Reserve boat)
- 6 Attack Class Patrol Boats (Reserve Boats)
- 15 Fremantle Class Patrol Boats
- 2 Training ships
- 1 Destroyer Tender
- 1 Fleet Oiler (Decommissions December 1985 - replacement HMAS Success to commission early 1986)
- 2 Hydrographic Survey Ships
- 1 Oceanographic Research Ship.

Fleet Air Arm

- 1 HS 817 Anti Submarine Helicopter Squadron
- 1 HS 723 Helicopter Training, EW and Utility Squadron
- 1 HU 816 Helicopter Squadron

Characteristics of Ships of the Fleet. The characteristics of ships of the fleet are set out in Annex B to Part Four.

Naval Establishments:

Commissioned

Headquarters support	HMAS Kuttabul	Sydney, NSW
Fleet air arm base	HMAS Albatross	Nowra, NSW
Submarine base	HMAS Platypus	Sydney, NSW
Ship and submarine base	HMAS Stirling	Cockburn Sound, WA
Patrol boat base	HMAS Cairns	Cairns, Qld
Patrol boat and communications station	HMAS Coonawarra	Darwin, NT
Mine warfare and patrol boat base and reserve training establishment	HMAS Waterhen	Sydney, NSW
Training establishments	HMAS Creswell	Jervis Bay, ACT
	HMAS Cerebus	Crib Point, Vic
	HMAS Nirimba	Quakers Hill, NSW
	HMAS Penguin	Middle Head, NSW
	HMAS Watson	Watsons Bay, NSW
Recruit and reserve training establishments	HMAS Leeuwin	Fremantle, WA
	HMAS Encounter	Port Adelaide, SA
	HMAS Moreton	Brisbane, Qld
	HMAS Huon	Hobart, Tas
Communications station	HMAS Lonsdale	Melbourne, Vic
	HMAS Harman	Canberra, ACT

Non-commissioned

Jervis Bay range facility	Jervis Bay, ACT
Naval supply centre	Zetland, NSW
RAN armament depots	Newington, NSW
	Kingswood, NSW
RAN armament and equipment depots	Cockburn Sound, WA
	Maribyrnong, Vic
RAN missile maintenance establishment	Kingswood, NSW
RAN torpedo maintenance establishments	North Sydney, NSW
RAN training establishment	Salisbury, SA

Naval Reserve Forces. The function of the Naval Reserve (Citizen Naval Force), as part of the Navy, is to participate in the defence of Australia and its interests, in times of war and defence emergency. The Reserves, with the RAN, are to provide the basis for the expansion of the Navy.

The components of the Naval Reserve both in the active and the non-training role are as follows:

Active:	RANR
Non-training:	Emergency list of officers
	RAN Fleet Reserve
	WRANS Reserve

The RANR is organised into six Reserve Port Divisions based in Reserve Training Establishments situated in each capital city except Darwin and Canberra. Their numbers range from 100 to 300 personnel. Each is commanded by a Reserve officer, assisted by a PNF staff officer and a small staff. Each RANR Port Division trains in specific tasks:

- a the manning of their assigned craft at short notice for short periods (72 hours or less);
- b the manning of their assigned craft with notice for prolonged periods (less than 40 days);
- c the manning and operation at short notice of a Diving Team (DT) in their ports (Brisbane, Sydney, Melbourne and Fremantle - Adelaide and Hobart DTs formation was approved in November 1979);
- d the manning of the naval control of shipping (NCS) organisation, and in Sydney and Melbourne the Naval Intelligence Division;
- e the maintenance, with PNF assistance, of assigned training craft and diving boats.

Future tasks may include mine countermeasures and seaward and harbour defence, primarily in their local ports, supported by a cadre of PNF experts.

The principal requirement of the RAN reserve is provision of officers and sailors with varying skills to relieve their PNF counterparts on a one-for-one basis. There is no requirement, for example, for them to comprise a full ship's complement to commission a destroyer or submarine. Sea going activities are restricted to the smaller, less complex craft such as patrol boats and landing craft.

The remaining elements of the Naval Reserves consist of ex-Regular Navy personnel who have the same call-out obligations as the RANR, but have lesser or no graining commitments.

MAJOR AUSTRALIAN PORTS

The characteristics and capacities of major Australian ports are set out in Annex C to Part Four.

NAVY PROJECT STATUS

The status of the current projects of the RAN is set out in Annex D to Part Four.

**ANNEX A TO PART FOUR
NAVY OFFICE COMMITTEES**

Chief of Naval Staff's Advisory Committee

Chairman: Chief of Naval Staff
Members: Deputy Chief of Naval Staff
Chief of Naval Operational Requirements and Plans
Chief of Naval Personnel
Chief of Naval Technical Services
Chief of Naval Materiel

Joint

Secretaries: Principal Staff Officer to Chief of Naval Staff
Executive Officer to the Chief of Naval Staff
Functions: To provide a forum for discussion of and, if sought, advice on any matter referred to it by the Chief of Naval Staff.

Permanent members of the Chief of Naval Staff's Advisory Committee may refer matters to the Chairman proposing consideration by the Committee.

The Chairman may direct that other persons should attend meetings either as members for the time or to provide specialist advice or opinion.

RAN Scientific Policy and Review Committee (SPARC)

Chairman: Chief of Naval Operational Requirements and Plans
Members: Naval Scientific Adviser
Assistant Secretary, Resources Planning - Navy
Director General Naval Operational Requirements
Director General Naval Design
Director of Naval Plans
Director of Naval Weapons Design
Controller, Service Laboratories and Trials
Superintendent, Defence Science Administration
Superintendent, RAN Research Laboratory
Secretary: Clerk to Director General Naval Operational Requirements
Functions: To advise the Chief of Naval Staff on the broad policy lines along which the Scientific effort for the RAN should be channelled.

In respect of the Defence Science and Technology (DST) Planning Base, recommend the allocation and priority of scientific effort for the RAN.

To review and set priorities for RAN tasks undertaken by Defence Science and Technology.

To review scientific effort on projects and studies affecting the RAN.

To initiate any follow up action required resulting from scientific investigations, and

to monitor the activities of the RAN School of Underwater Medicine.

The Naval Materiel Committee

Chairman: Chief of Naval Materiel

Members: Deputy Chief of Naval Materiel (and as alternative Chairman)

Assistant Secretary, Resources and Planning - Navy

Director-General Naval Operations Requirements

Assistant Director-General Supply - Navy

Director of Naval Plans

* Director General Naval Production

* Director General Naval Design

* Director General Dockyard Maintenance

* Director General Dockyard Maintenance

* Director of Naval Aircraft Engineering

* Assistant Secretary, Naval Technical Services

* Chief Executive Officer Resources Planning -

- Materiel (Navy)

* Chief Executive Officer Budgets and Estimates -
Navy

* Prime Vote Co-ordinator appropriate to subject
under discussion

* Director sponsoring subject under discussion

Note: * Officers marked thus will only attend as appropriate or required for subject under discussion.

Secretary: Staff Officer to Chief of Naval Materiel

Functions: To consider the following papers prior to approval by the
Chief of Naval Staff:

Naval Project Briefs

Minor Item Submissions

Project Management and Acquisition Plans

Project Directives

Specifications and Contract Documents, and

Priority Lists for Major and Minor Projects.

To endorse and make recommendations to the Chief of Naval Staff on the following aspects of these papers:

That all facts stated are accurate and unambiguous.

That the financial implications are clearly stated and estimated costs and spreads of expenditure are soundly based and feasible of achievement.

That design, installation, support and manpower resource implications are fully appreciated, planned for and feasible of achievement within the stated time scales.

That the implementation schedule dates are feasible in the light of administrative and production lead times to be expected.

In the case of specifications, evaluation papers and contract documents ensure that the Naval Staff Requirement is being met most economically.

That the specifications, project directives, project management and acquisition plans etc. are satisfactory against which to monitor implementation of the project.

The feasibility and practicability of project implementation in accordance with the priorities proposed for major and minor projects, and

Review the requirement for any change to the nominated Project Director when the project moves into the acquisition phase and make recommendations if a change is considered to be desirable.

The RAN Central Canteens Board

Chairman: Chief of Naval Personnel
Members: Director General Naval Personal Services
Director Fleet Supply Requirements
Director Naval, Victualling and General Stores
Regional Finance Officer (Melbourne)
Secretary: Assistant Director of Fleet Supply Requirements (Melbourne)
Functions: The RAN Central Canteens Board is constituted by Navy (Canteens) Regulations Statutory Rule No.129 to administer the RAN Canteen Services.

The RAN Relief Trust Fund Trustees

Chairman: Chief of Naval Personnel
Members: Director General Naval Personal Services
(Trustees) Assistant Director of Fleet Supply Requirements (Melbourne)
Member of Naval Officer-in-Charge Victoria Staff
Secretary: Appointed by Navy Office
Functions: The RAN Relief Trust Fund is established under the Services Trust Fund Act 1947-50, and is administered by the Trustees who are appointed by the Governor-General.

Engineering Civil Personnel Committee

Chairman: Director General of Naval Design (DGND)
Members: Director General of Naval Production
Director General of Naval Ship Design
Director of Marine Engineering Design
Director of Naval Weapons Design
Staff Engineer (Personnel) to DGND
Representative of Director of Naval Aircraft Equipment
Representative of the General Manager Garden Island Dockyard
Representative of the Assistant Secretary Civil Personnel (ASCP)
Representative of the Director General Training and Education Policy

Secretary: Provided by ASCP
Functions: To establish policies and procedures for all matters relating to the entry, training, transfer, appointment, advancement and employment of civilian personnel employed within the sphere of supervision of the Chief of Naval Technical Services, both at Navy Office and in Establishments. Although the Committee will not be directly concerned with other similar personnel outside the sphere of the Chief of Naval Technical Services it will consider the possible effect of its activities on such personnel and consult with appropriate Departmental authorities as necessary.

Navy Metric Conversion Committee

Chairman: Director General of Naval Design
Members: Director General of Fleet Maintenance
Director General of Naval Production

Representative of Director General of Naval Operational Requirements
 Representative of Director General of Naval Training and Education
 Representative of Director General Supply - Navy
 Representative of Assistant Secretary Naval Technical Services
 Representative of Director of Naval Aircraft Engineering
 Representative of Director of Naval Quality Assurance
 Representative of Director General Training and Education Policy

Executive
 Secretary:

The Staff Engineer, Naval Metrication Co-ordination

Functions:

The Naval Metrication Committee (NMC) coordinates the introduction of metrication throughout the Department of Defence (Navy) within the guidelines produced by the Defence Group Committee on Metric Conversion. Its functions are:

To plan, direct and control the conversion to metrication in the Department of Defence (Navy) within the framework established by the Metric Conversion Board and associated bodies.

To serve as a focal point in the Department of Defence (Navy) for liaison with the Defence Group Committee on Metric Conversion, the MCB sector committees where appropriate, the Defence Standardisation Committee, and the Standards Association of Australia (SAA).

To serve as a consultative body for advice on all matters relating to metrication within the Department of Defence (Navy).

To be responsible for keeping all divisions, branches and authorities within the Department of Defence (Navy) informed on all associated matters relating to metric conversion as may be appropriate, and

To report as necessary to the Chief of Naval Staff.

Noise Reduction Engineering Panel

Chairman: Director General of Naval Design

Members: Naval Scientific Adviser

Director of Underwater Weapons

Director of Submarine Policy

Director of Fleet Maintenance

Director of Forward Design (Ships Projects)

Director of Naval Ship Design

Director of Marine Engineering Design

Director of Naval Electrical Design

Director of Naval Weapons Design

Secretary: Provided by Director of Naval Ship Design

Functions: Advising the Naval Staff in the formulation of noise policies.

Advising the Naval Technical Services on existing sources of expert knowledge on noise and noise reduction techniques and the need for developing this knowledge.

Advising the Scientific Policy and Review Committee on scientific aspects of noise and noise reduction.

Recommending standards for design, installation, maintenance and operation of noise reduction materials, equipment and systems.

Recommending evaluation and service trials of noise reduction materials, equipments and systems to assess their suitability for RAN service use.

Recommending requirements for noise measuring and analysis and associated facilities.

Disseminating to authorities concerned all information on noise policy and matters concerning noise reduction techniques.

Coordinating liaison with other navies and research and development authorities.

Royal Australian Navy Corrosion Committee

Chairman: Director General Fleet Maintenance

Members: General Manager Garden Island Dockyard
General Manager Williamstown Dockyard
Chief Staff Officer (Technical) Fleet Commander
Chairman Hull and Structure Corrosion Sub-Committee

Chief Superintendent Materials Research Laboratories

Assistant Naval Adviser British High Commission

Secretary: Executive Officer Directorate Naval Quality Assurance

Function: To manage and administer the Naval Corrosion and Fouling Control Programme and report to the Chief of Naval Technical Services and to submit reports annually.

Repair and Refit Programme Committee

Chairman: Director General Fleet Maintenance

Members: Flag Officer Commanding IMA Fleet
General Managers of Naval Dockyards
Director General Naval Operations and Plans and others

Secretary: Director of Naval Dockyards

Functions: To decide the programme for the repair and refitting of IMA Ships during the ensuing twelve months.

The RAN Staff Requirements Committee

Chairman: Director General of Naval Operational Requirements

Members: Director General Supply - Navy
Naval Scientific Adviser
Assistant Secretary Resources Planning - Navy
Director General of Naval Design
Director General of Naval Manpower
Director of Naval Project Co-ordination
Director of Naval Plans
Director of Naval User Requirements
Department of Industry and Commerce Representative

Secretary: Clerk of Director General, Naval Operational Requirements

Functions: Consider the following papers prior to approval by the Chief of Naval Staff:

Naval Staff Targets

Naval Staff Requirements

Ship Characteristics, and

Significant amendments to these papers as determined by the Chairman of the Committee.

Endorse and make recommendations to the Chief of Naval Staff on the following aspects of these papers:

Establishment of the requirement against the background of the following implications:

- the operational capability required;
- in-service manpower;
- training;
- maintenance and support;
- research and development;
- design; and
- cost and production.

Main features and performance of the equipment required.

Standardisation or compatibility with other Services and allies.

Feasible target dates and priority of satisfying the requirement.

Security classification of the proposed project.

Distribution of the Naval Staff Target or Naval Staff Requirement, and

Appointment of an appropriate Project Director.

Naval Long Range Planning Committee

Chairman: Director General Naval Plans and Policy

Members: Director General of Naval Operational Requirements
Director General Facilities - Navy
Director General Naval Manpower
Assistant Secretary Resources Planning - Navy
Deputy Chief of Navy Materiel
Chief Staff Officer Naval Technical Services

Secretary: Clerk to Director General of Naval Plans and Policy

The Committee may co-opt other members as necessary and appropriate to a particular task.

Functions: The Long Range Planning Committee is responsible through Chief of Naval Operations Requirements and Plans (CNORP) to Chief of Naval Staff (CNS) for:

- a periodic review of Navy's Major Capital Equipment element of the Five Year Defence Programme and Three Year Extension;
- b the provision of consolidated advice on the allocation of manpower and financial resources where such allocation has implications for all Divisions;
- c review of the Navy's Medium Range Plan before submission to CNS;
- d review of the Navy's Long Range Plan before submission to CNS; and
- e such other tasks which may be decided from time to time by CNORP or CNS.

Royal Melbourne Institute of Technology Study Board

Chairman: Director General of Naval Training and Education

Members: Naval:
Director of Naval Education
Royal Melbourne Institute of Technology
Naval Supervisor (and representing Commanding Officer, HMAS Lonsdale)
The Area Naval Psychologist
Royal Melbourne Institute of Technology:
The Deputy Vice Principal
The Liaison Officer
The Warden of Students
Heads of Departments

Secretary: Liaison Officer Royal Melbourne Institute of Technology

Functions: Reviews at suitable times during the year the academic progress of students studying Engineering courses at Royal Melbourne Institute of Technology;
Makes recommendations to the Chief of Naval Staff, through the Director General of Naval Training and Education, on:
the progression of students from one academic year to the next;
the granting of repeat years to deserving students, and
the need to re-assign or withdraw students from training.
Keeps under review all facets of Naval training at Royal Melbourne Institute of Technology, and makes such recommendations as may lead to increased training efficiency and satisfactory Royal Australian Navy/Royal Melbourne Institute of Technology relations.

Naval Complements Committee

Chairman: Director General of Naval Manpower

Members: Director of Naval Logistic Planning
A representative from the Naval Establishments Inspection Team, IGESTABS section - Defence Central
Any other Director whose Terms of Reference include responsibility for the main specialised functions of an establishment when recommendations affecting the performance of those functions are being discussed.

Secretary: Director of Naval Manpower Planning

Functions: The Complements Committee shall be responsible to the Chief of Naval Personnel and its functions shall be to:
Review proposals for major amendments to schemes of complement and for initial complements for new construction and new naval shore establishments.
Recommend major amendments to existing complements and initial complements for new construction and new naval shore establishments to appropriate higher authorities.

Naval Mobilisation Committee

Chairman: Director General of Naval Manpower

Members: Director of Naval Reserves and Cadets
Director of Naval Manpower Planning
Director of Naval Officers' Postings
Director of Naval Plans
Director of Sailors' Postings

Secretary: Provided from within the Manpower Branch

Functions: The Naval Mobilisation Committee shall be responsible to the Chief of Naval Personnel and its functions shall be:
To review personnel aspects of mobilisation;
To advise on measures necessary to ensure that personnel available for mobilisation are adequate to meet requirements.

Naval Recruiting Committee

Chairman: Director General of Naval Manpower
Members: Director of Naval Education
Director of Women's Royal Australian Naval Service
Director of Psychology - Navy
Director of Naval Recruiting
Director of Naval Manpower Planning
A representative of Director General of Naval Health Services
Secretary: Provided from within the Manpower Branch
Functions: The Naval Recruiting Committee shall be responsible to the Chief of Naval Personnel and its function shall be to review as required Naval recruiting procedures.

RAN Ship Habitability Committee

Chairman: Director General of Naval Personal Services
Members: Chief Staff Officer to Flag Officer Commanding Australian Fleet
Director of Naval User Requirements
Director of Naval Industrial Policy
Director of Naval Ship Design
Secretary: Director of Naval Ship Design
Functions: Terms of Reference under review

RAN Uniform and Clothing Committee

Chairman: Director General of Naval Personal Services
Members: Director of Naval Supply Requirements
Assistant Director of Naval Supply Requirements (Victualling)
Flag Officer Commanding Naval Support Command
Commanding Officer HMAS Cerberus
When necessary the Committee can co-opt other officers located at Navy Office and representation of Flag Officer Commanding Australian Fleet.
Functions: The Committee considers all proposals for:
Variation of uniform kits;
Introduction of new items of clothing and/or uniform including new materials; and
Alterations to existing items or materials.

RAN Central Canteens Committee

Chairman: Director General of Naval Personal Services
Members: Flag Officer Commanding HM Australian Fleet (Representative)
Flat Officer Naval Support Command (Representative)
Commanding Officer HMAS Cerberus (Representative)
Director of Fleet Supply Requirements
HMAS Ships: (four sailor representatives)
Establishments:

Sydney Area (one sailor representative)
 HMAS Albatross (one sailor representative)
 HMAS Cerberus (one sailor representative)

Secretary: Assistant Director Fleet Supply Requirement (Melbourne)

Function: The Committee may:

- a make recommendations and suggestions to the RAN Central Canteen Board on matters concerning the interest and welfare of members of the Navy in relation to canteens; and
- b make recommendations to the RAN Central Canteens Board on matters of principle concerning the application of money or property forming part of the RAN Central Canteens Fund

RAN Relief Trust Fund Committee

Chairman: Director General of Naval Personal Services

Members: Chief Staff Officer (Administration) to Flag Officer Commanding HM Australian Fleet
 Chief Staff Officer (Administration) to Flag Officer Naval Support Command
 Director of Fleet Supply Requirements
 Commanding Officer HMAS Cerberus (Representative)
 HMA Ships: (four sailor representatives)
 Establishments:
 Sydney Area (one sailor representative)
 HMAS Albatross (one sailor representative)
 HMAS Cerberus (one sailor representative)

Secretary: Secretary RAN Relief Trust Fund

Function: The Committee will make recommendations on matters of policy in the use of the Fund within the terms of the Services Trust Fund Act, 1947.

Navy Programmes and Estimates Committee

Chairman: Deputy Chief of Naval Staff

Members: Director General Navy Manpower
 Director General Fleet Maintenance
 Director General Supply - Navy
 Deputy Chief of Naval Materiel
 Director of Naval Plans
 Assistant Secretary Budgets and Estimates (General and Co-ordination)
 Assistant Secretary Resources Planning - Navy
 Assistant Secretary Service Personnel - Navy
 Assistant Secretary Naval Technical Services
 Head Dockyard Secretariat
 Director of Civil Personnel Administration

Member and Secretary: Chief Executive Officer Budgets and Estimates - Navy

Invited

Member: The Chairman may co-opt specialist directors and other officers as required.

Functions: Examine the Navy Office elements of the FYDP, the One Year Financial Programme, Draft Annual Estimates of Expenditure, the Additional Estimates, and periodical reviews of Financial Programmes and Estimates to ensure that:

- a they conform with approved policy and activity and clearly show the financial implications of any proposed changes in requirements;
- b they are soundly based and provide the most economic method of complementing each activity of requirement; and
- c practicable ways and means of financing proposals are fully explored.

Examine periodically the progress of authorisation and expenditure and make recommendations as appropriate on control of resources/expenditure or on questions of economy in utilisation of resources under Defence control.

Make recommendations and/or provide advice to the Chief of Naval Staff arising out of the examinations.

Naval Health Benefits Society Committee

Chairman: Director General of Naval Personal Services

Members: Assistant Director Fleet Supply Requirement (Melbourne)

Commanding Officer HMAS Lonsdale

Deputy Regional Secretary Victoria - Navy

Chief Petty Officer Writer - RAN Relief Trust Fund

Secretary: Assistant Director Fleet Supply Requirements (Melbourne)

Functions: The Committee has been established to manage the administration of the Society in accordance with the Society Constitution.

The Machinery and Plant/Motor (MP/MTC)

Transport Requirements Committee (MPTC)

Chairman: Director General Fleet Maintenance

Members: Director of Naval Machinery Equipment Supply

Director of Fleet Maintenance

Director of Naval User Requirements

Director of Naval Aircraft Engineering

Director of Movement and Transport - Navy

Director of Naval Supply Services

Chief Executive Officer Resource Planning Materiel - Navy

Assistant Head Dockyard Secretariat - Facilities and Services

Secretary: Assistant Head Dockyard Secretariat - Facilities and Services

Functions: Under the joint and general direction of Head Dockyard Secretariat (HDS) and Director General Supply - Navy (DGSUP-N) is responsible to Chiefs of Naval Materiel (CNM) and Chief of Naval Technical Services (CNTS) to:

- a review the annual proposals for M&P/MT and determine, subject to CNM/CNTS approval, the most cost effective annual M&P/MT equipment acquisition Capital and Maintenance programmes;
- b review the requirements for M&P/MT in the Five Year Defence Program (FYDP) and sponsor the provision for M&P/MT capital acquisitions in the Minor Capital Equipment FYDP.
- c review and determine, subject to CNM/CNTS approval, the policy and procedures for the submission of M&P/MT programmes.
- d ensure that M&P/MT proposals and programmes:

- i reflect to the best advantage the priorities stated by the proposing authorities;
 - ii are appropriate to the approved development concept for Naval Establishments/dockyards;
 - iii are in accordance with the approved maintenance, test, calibration and quality assurance policies; and
 - iv are in accordance with the approved 'Statements of Requirements' for shore establishments.
- e ensure that M&P/MT acquisition procedures reflect the optimum devolution of autonomy and financial control commensurate with approved Departmental policies and Command responsibilities;
 - f undertake such duties as directed by HDS/DGSUP-N related to the definition, determination and programming of the Navy's overall M&P/MT requirements.

ANNEX B TO PART FOUR **CHARACTERISTICS OF SHIPS OF THE FLEET**

Type of ship and Number	Launched	Displacement Full Load (Tonnes)	Speed	Armament	Complement	Where built
Guided Missile Destroyers 3.	1963 to 1966	4618	35	5" guns Standard SAM IKARA ASM ASW Torpedoes	333 (21 Officers + 312)	USA
Guided Missile Frigates 4.	1978 to 1982	3678	28	76mm guns HARPOON SSM STANDARD SAM ASW Torpedoes	186 (13 Officers + 173)	USA
River Class Destroyer Escorts 6.	1958 to 1968	2700	30	4.5" guns SEACAT SAM/SSM IKARA ASM AS mortars	247 to 250 (13 Officers + 234-237)	AUST.
Oberon Class Submarines 6.	1965 to 1975	2030 (surface) 2410 (submerged)	16 (surface) 17 (submerged)	21" torpedo tubes	62 (7 Officers + 55)	UK
Mine Hunter 1.	1953	440	15	40mm Bofors	38 (4 Officers + 34)	UK
Amphibious Heavy Lift Ship 1.	1980	5800	18	40mm Bofors	130	AUST.
Landing Craft Heavy 6.	1971 to 1972	316	10	0.5" machine guns	16 (2 Officers + 14)	AUST.
Attack Class Patrol Boats (Reserve) 5.	1967 to 1968	146	21 to 24	40mm Bofors 0.5" machine guns.	19 (3 Officers + 16)	AUST.
Fremantle Class Patrol Boats 15.	1979 to 1984	211	30	40mm Bofors 0.5" machine guns 81mm mortar	22 (3 Officers + 19)	AUST.
Training Ships 2.	1. 1956	3600	30.5	4.5" guns 40mm Bofors	219 plus 67 trainees	AUST.
	2. 1969	8915	19.5	Nil	146 plus 76 trainees	AUST.
Destroyer Tender 1.	1966	15,500	20	40mm Bofors	396 (23 Officers + 373)	AUST.
Fleet Oiler 1.	1954	25,941	17.25	40mm Bofors	205 (12 Officers + 193)	UK
Hydrographic Survey Ships 2.	1. 1963	2351	19		135 (13 Officers + 122)	AUST.
	2. 1972	750	13.5		38 (4 Officers + 34)	AUST.
Oceanograph Research Ship 1.	1977	2450	17		150 (including 13 scientists)	AUST.

ANNEX C TO PART FOUR **MAJOR AUSTRALIAN PORTS**

Port	Depth to Approach Channel (metres)	Number of Berths	a. Wharf Length (metres) (i) Shortest (ii) Longest b. <u>Depth Alongside</u> (i) Shallowest (ii) Deepest	Ship Repair Facilities	Tidal Data a. Higher High Water b. Lower High Water (metres)
NEWCASTLE	Entrance Channel to Horseshoe 15.2m Horseshoe to Basin 13.1m Basin Area to Lee Wharf Nos. 1 to 4 13.1m Basin Area to Lee Wharf No.5 9.7m Basin Area to Western Basin Coal Loader 13.1m Basin Area to No.1 Throsby 11.0m Basin Area to No.2 Throsby Wharf 9.7m North Harbour Leads Horseshoe Area 15.2m Steelworks Channel to below No.5 Dyke 15.2m Steelworks Channel above No.5 Dyke 15.2m Approach to Bulk Berth Koorangang and Swinging Basin 11.0m B.H.P. Swinging Basin 12.8m	31	a. (i) 100 (ii) 365 b. (i) 2.0 (ii) 13.5	All major repairs can be undertaken. Floating Dock - up to 45000 DWT	a. 1.6 b. 1.3
SYDNEY (PORT JACKSON)	Harbour Entrance 24.4m East Channel 12.2m West Channel 14.2m The bottom is sand and silt.	79 pens 7 oil 3 coal 1 Heliport	a. (i) 61 (ii) 384 b. (i) 11.0 (ii) 13.7	All facilities are available.	a. 1.58 b. 1.28
BOTANY BAY (PORT BOTANY) (KURNELL)	The channel to the swinging basin and berths at Kurnell has a minimum depth of 12.2m. The bottom is sand. The channel to the Port Botany area is 213m wide and has a minimum depth of 15.2m. The swinging basin dredged to 13.1m.	5 pens 3 submarine terminals	a. (i) 198 (ii) 312 b. (i) 11.0 (ii) 15.2	Available from Sydney	a. 1.6 b. 1.3
PORT KEMBLA	Breakwater Entrance width 305m, Depth 16.8m. Inner Harbour entrance depth 15.2m. The nature of the bottom of the Outer Harbour is mostly rock.	14 pens 1 coal 1 RORO	a. (i) 329 (ii) 183 b. (i) 7.3 (ii) 15.7	Major repairs but no dry-docking	a. 1.4 b. 1.2
WESTERN PORT	Approach channel to Crib Point Jetty 14.3m below chart datum, swing basin has a diameter of 610m and a depth of 14.3m. Approach channel to Long Island Jetty depth 14.3m, swing basin has a diameter of 548m, depth 14.3m. Approach channel to the Steel Industry Wharves has a depth of 9.1m, swing basin diameter 457m, depth 12.1m.	6	a. Tankers up to 100,000 tonnes RORO up to 10,000 tonnes b. (i) 127 (ii) 15.8	Limited dock and engine repairs	Western Entrance a. 1.7 b. 2.1 Crib Point Jetty a. 3.1 2.3
PORT OF MELBOURNE (including WILLIAMS-TOWN)	The maximum permissible draft Port Phillip Entrance 11.6m South Channel depth 12.5m Fawkner Beacon to No.6 Beacon 13.1m No.7b Beacon to Port Melbourne 10.0m No.6 Beacon to No.18 Beacon 13.1m No.18 Beacon to Webb Dock 11.2m No.6 Beacon to Swanson Dock 13.1m Swanson Dock to 24 Victoria Dock 11.0m to 10.3m Victoria Dock Swing Basin to 21 South 9.4m 21 South Wharf to Floating Dock 8.5m Holden Basin No.1 Maribyrnong 10.3m to 10.0m The nature of the bottom in the approach channels to Port Melbourne, and in the River Yarra is clay.	82	a. (i) 70 (ii) 257 b. (i) 4.6 (ii) 13.1	Marine repairs of any description can be carried out. There is one floating dock in port. The Floating dock 'A.J.Wagglen' situated in the River Yarra off No.11 South Wharf, has an overall length of 156m lifting capacity 8,000 tonnes. Two 5 tonne lifting cranes on the dock. The Alfred Graving Dock at Williamstown. Length at floor 139.9m, depth on sill at L.W.7.26m, breadth at keel level 19m.	a. 0.84 b. 0.80 Williamstown

Port	Depth to Approach Channel (metres)	Number of Berths	a. Wharf Length (metres) (i) Shortest (ii) Longest b. Depth Alongside (i) Shallowest (ii) Deepest	Ship Repair Facilities	Tidal Data a. Higher High Water b. Lower High Water (metres)
MELBURN	Point Richards, Billston Spit, Leptoon and Corio Channels have a width of 122m and a depth of 11.0m City Channel has a width of 91m, depth 9.1m. Explosives Channel width 122m, depth 9.1m. The bottom is mud and clay. The maximum permissible draft is governed by channel depths; at the deeper berths 10.5m including an allowance for tide being possible.	15	a. (i) 152 (ii) 328 b. (i) 9.1 (ii) 11.0	The Authority operates Ripplside Ship Repairs, a slipway for vessels to 1,000 tons and workshops at North Geelong. Private firms can carry out extensive repairs also.	Port Phillip Heads a. 1.4 b. 1.3 Yarra Pier a. 0.8 b. 0.7
HOBART	River Derwent Entrance 14.6m D'Entrecasteaux Channel minimum depth 11.0m. Approach to Port Huon Wharf - draft restricted to 9.0m, approach to Spring Bay Wharf 12.2m.	24	a. (i) 91.4 (ii) 244	There are no dry-docks. Limited repairs can be undertaken by firms in Hobart. A modern slipway is available for vessels up to 1,200 tonnes displacement.	The tides at Hobart are irregular. The maximum rise and fall is 1.37.
CAIRNS	A dredged cutting 7 miles in length and 76.2m wide has a depth of 8.3m at L.W.O.S.T. The bottom is mud.	9	a. (i) 119 (ii) 183 b. (i) 4.9 (ii) 10.7	Repair facilities are available. A dry dock is Smith's Creek can accommodate vessels up to 1,000 tonnes. There is also a slipway capacity up to 850 tonnes.	a. 2.3 b. 1.7 At wharves
TOWNSVILLE	The Sea Channel 1.75 miles in length is for the use by vessels with a draft exceeding 8.0m and the Platypus Channel, which proceeds for a further distance of 3.5 miles to the breakwater entrance is 92m wide, with a depth of 11.0m, swing Basin 396m diameter, depth 10.6m, swing to all berths 9.5m.	9	a. (i) 122 (ii) 274 b. (i) 6.1 (ii) 11.6	A slipway situated in Ross Creek is capable of taking vessels to 67m in length. A modern ship repair workshop is adjacent.	a. 2.9 b. 1.9 At Wharves.
ROCK-HAMPTON	The approach channel, about 13 miles in length has a least depth of 7.3m at L.W.O.S.T. and a minimum width of 91.4m. Swing basin is 7.3m. The bottom is mud.	3	a. (i) 137 (ii) 271 b. (i) 8.8 (ii) 9.6	Minor repairs only	a. 4.5 b. 3.5 At wharves.
BRISBANE	North West Channel Moreton Bay 13.0m North East Channel Moreton Bay 7.5m Spitfire Channel Moreton Bay 12.2m East Channel Moreton Bay 12.2m Bay Entrance to Luggage Point Swing Basin 11.6m Swing Basin to Bretts Wharf 9.1m Bretts Wharf to A.N.L. Wharf 8.8m A.N.L. Wharf to New Farm 7.6m Approach Channel widths are as follows: Moreton Bay Approach Channels 300m Brisbane River Bar Cutting 180m Brisbane River Channels 122m	31	a. (i) 120 (ii) 340 b. (i) 8.5 (ii) 13.0	Ships repairs of all kinds to be undertaken.	a. 2.1 b. 1.8 Brisbane River Bar.
PORT ADELAIDE	Marked Channel from fairway buoy to Outer Harbour dredged to 12.0m. Outer Harbour swing basin width 420m depth 10.1m. Container Berth swing basin width 460m, depth 12.0m, dredged channel to Inner Harbour minimum width 152m depth 9.2m generally limited to ships of 183m in length. The bottom is mainly clay and silt.	38	a. (i) 97 (ii) 329 b. (i) 4.9 (ii) 10.7	There are no dry-docks or large slipways, but substantial engine and hull repairs can be undertaken by local workshops.	Outer Harbour a. 2.5 b. 1.5 Inner Harbour a. 2.6 b. 1.5

Port	Depth to Approach Channel (metres)	Number of Berths	a. Wharf Length (metres) (i) Shortest (ii) Longest b. Depth Alongside (i) Shallowest (ii) Deepest	Ship Repair Facilities	Tidal Data a. Higher High Water b. Lower High Water (metres)
PREMANTLE	Access to the Outer Harbour by Success and Parmelia Channels dredged to 13.7m with a navigable width of 152m. Stirling Channel width 122m, depth 11.7m and Calista Channel width 152m, depth 11.8m, give access to the Steelworks and Alumina Refinery Jetties. The approach Channel to the Inner Harbour and the entire Inner Harbour area are dredged to 11.0m at L.W. The bottom is mainly sand and grey silt, limestone in the Inner Harbour.		a. (i) 153 (ii) 259 b. (i) 7.6 (ii) 16.8	There are no dry or floating docks, but adequate ship repair services are available. There are slipways with capacity of 3,000 and 600 tonnes.	a. 1.1 b. 0.8 At Wharves
PORT DAMPIER	Approach channel to Parker Point 7.01. Bottom is sand and mud. Departure channel from Parker Point Ore Jetty dredged to 15.35m, width 152.4. Bottom is mud and clay. Approach channel to East Intercourse Island Ore Jetty and Mistaken Island Salt Berth is 11.0m. Departure channel from East Intercourse Island Ore Jetty is dredged to 15.85m, width 167m, bottom sandstone and clay. Departure Channel from Mistaken Island Salt Berth 12.8m.	4	a. (i) 69.5 (ii) 341.5 b. (i) 7 (ii) 18.1	Ship repair and general marine engineering services are available. Slipways for small craft of 500 tonnes.	a. 4.7 b. 2.3 In the berthing areas.
PORT DARWIN	Charles Point Patches Buoy to Quarantine Anchorage least depth 9.1m. Quarantine Anchorage to wharves 11.9m at L.W.O.S.T. The bottom is generally coarse sand, mud and rock.	7 pens 2 RORO	a. (i) 48 (ii) 292 b. (i) 4.9 (ii) 9.7	Limited ship repair services available	a. 7.93 b. 3.72
GOVE	Minimum depths to General Cargo Berth 11.0m and to the Bulk Loading Berth 12.8m at L.W.O.S.T. The bottom is coarse sand and overlaying rock.	2	a. 91.5 b. 11.0	Nil	a. 3.3 b. 2.3

Abbreviations: L.W.O.S.T. - Low Water Ordinary Spring Tide.

Source: Australia Pilot Volumes I, II, III, IV, and V. (Hydrographer of the Navy (RN) 1972.)

ANNEX D TO PART FOUR

NAVY PROJECT STATUS

Project	Planned in Service Date	1985-86 Outlay \$	Total Project Cost \$	Status
Australian Frigates (Follow-on Destroyers)	1990-1993	Nil	859m	Long lead items ordered '81 October 1983 go-ahead for production. Work began Williamstown Dockyard in March 1985.
New Submarines (Oberon Replacements)	1991-1993	20m	1500m	HDW and Kockums sign Study contracts in August 1985. Rockwell and ASA chosen to study combat systems.
New Surface Combatant (Destroyer replacement)	1992-1995	1m	4000m	Initial studies underway to define Navy requirements.
Inshore minehunters	1988-1990	12m	145m	'Keel laid' of first of two locally-designed and bulk prototypes at Carringtons, Tomago in August 1984.
Mine Sweepers (Ton Class replacement)	1989-1992	Nil	150m	Delayed while Navy rethinks its requirements.
Guided Missile (DDG) Destroyer Modernisation (Enhanced capability)	1986-1987	94m	307m	Project approved; work proceeding.
FFG Helicopters (New combined anti-sub, anti-ship capability)	1987-1988	70m	368m	Contract signed with Sikorsky in August 1985 for 8 helicopters (initial buy) at \$244m. HMAS Darwin conversion underway.
Relocation of Naval Communications Facilities (Canberra area)	1990	1m	150m	Initial feasibility studies by industry about to begin.
Pacific Islands Patrol Boat	1987-1990	Nil	43m	To be built by Australian Shipbuilding Industries. Contract signed August 1985.
Fleet Underway Replenishment Ship (HMAS Success)	1986	19m	195m	HMAS Success nearing completion at Codock.
Phalanx Close-In Weapon Systems (CIWS)	1985	3m	20m	Fitment to all four FFGs completed. First firings from HMAS Sydney June 1985.
FFG-7 Patrol Frigates	1985	53m	1015m	First three ships in service. HMAS Darwin (fourth FFG) to arrive August 1985, with helicopter, modification fitted.
SIMULATORS:				
a. Ship's Bridge (New capability)	1985	2m	15m	Contract to Krupp August 1982 accepted by RAN March 1985.
b. Combat Systems (Pierside training new capability)	1988	8m	17m	Recent order to USA via Foreign Military Sales organisation.
c. FFG Helicopter	1987-1988	Nil	2m	ITR issued December 1984. RFT due out July 1985.
d. AIOTT upgrade at HMAS Labuan	1988	Nil	20m	Design review in progress.

PART FIVE THE ARMY

ROLES

The common functions of the Australian Defence Force are to deter aggression, to ensure the security of Australia and its Territories and to uphold and protect Australia's national interests. The Army's function is to conduct operations on land and its principal roles are:

- to organise, train, equip and maintain forces for the conduct of timely and sustained combat operations on land;
- to develop and maintain Reserve forces to supplement or expand the Regular Army;
- to provide a sound base for expansion; and
- to maintain reserves of equipment and supplies.

Supplementary to these roles are responsibilities concerning the provision of specified support to the other Services, the provision of general area ground defence of Service installations and low level air defence. It has a responsibility also to conduct research and to develop tactics, techniques, organization and equipments.

Other roles, but ones which are particularly important in peacetime, involve aid to the civil authority including counter-terrorism, providing assistance to the community including natural disaster relief, and being prepared to participate in United Nations forces. In addition, the Army is required to provide assistance and training for the military forces of other nations in accordance with government policy.

STRUCTURE

The Australian Army comprises two elements:

- a relatively small Regular force of professional soldiers; and
- volunteer Reserve forces.

The latter in time of war or defence emergency augment the Regular force so that together they provide the basis for the expansion of the whole army on mobilization.

Close integration of Regular and Reserve units of the Army's field force is taking place with the aim of achieving a Total Force structure.

COMMAND AND CONTROL

Command of the Army is exercised by the Chief of the General Staff (CGS) through Army Office (Canberra). Below Army Offices the Army comprises three functional commands - Field Force Command, Logistics Command and Training Command. In addition there is a Military District Headquarters in each state and in the Northern Territory. The Royal Military College Duntroon operates as a separate entity.

Army Office

The organisation of Army Office showing the channels of command and the senior staff appointments is as follows:

MINISTER FOR DEFENCE

CHIEF OF THE DEFENCE FORCE (4 star)

ARMY

CHIEF OF THE GENERAL STAFF (3 star)

SENIOR ARMY OFFICE APPOINTMENTS

DEPUTY CHIEF OF THE GENERAL STAFF (2 star)

Director General of Coordination and Organisation
(1 star)

ARMY SCIENTIFIC ADVISER (c)

CHIEF OF OPERATIONS (2 star)

Deputy Chief of Operations (1 star)
Director General of Operations and Plans (1 star)
Director General of Army Development (1 star)
Director General of Army Training (1 star)

CHIEF OF PERSONNEL - ARMY (1 star)

Deputy Chief of Personnel - Army (1 star)
Military Secretary (1 star)
Director General of Personnel Operations (1 star)
Director General of Army Health Services (2 star)
Director of Medical Services - Army (1 star)
Director of Dental Services - Army (1 star)

CHIEF OF LOGISTICS - ARMY (2 star)

Deputy Chief of Logistics (1 star)
Director General of Accommodation and Works - Army (1 star)*
Director General of Logistics, Developments and Plans (1 star)
Director General of Supply (1 star)*
Director General of Electrical and Mechanical Engineering
- Army (1 star)*

CHIEF OF MATERIEL - ARMY (2 star)

Director General of Materiel - Army (1 star)
Director General of Quality Assurance (1 star)
Commander, Engineering Development Establishment (1 star)

CHIEF OF THE ARMY RESERVE (2 star)

Deputy Chief of the Army Reserve (1 star)
Executive Member, Committee for Employer Support of
Reserve Forces (1 star)

- Notes: (i) Appointments marked (*) are 'Two Hatted' appointments in which incumbents have dual responsibilities to both the Secretary, Department of Defence and their own Chief of Staff.
- (ii) Appointments marked (c) are civilian appointments.

Army Office Committees

- Chief of the General Staff's Advisory Committee
- Promotion and Selection Committee
- Army Programme and Estimates Committee

- Appointment and Promotion Committee
- Army Works Committee
- Army Development Committee
- Army Material Committee
- Army Reserve Advisory Council
- Senior Staff Officers Committee

For details of composition and functions of these Committees, see Annex A to Part Five.

Field Force Command

The preparation of the Army to fulfil its tasks relies heavily on the development of a field force which maintains and develops the operational techniques to win on the modern battlefield. The role of Field Force Command in war will be to raise, train and provide ground force units for operational forces, either single service or joint forces.

Should the Army be required to expand significantly in peace or in a warning period before an emergency, a corps headquarters will be required. Headquarters Field Force Command is responsible for raising this headquarters. Headquarters Field Force Command is located in Sydney.

Logistic Command

Logistic Command, whose headquarters is in Melbourne, is responsible for the provision of logistic support to the Army and to all other Services as required. The role of Logistic Command is to command allotted units of the RACT, RAAOC, RAEME and Army Quality Assurance Services and in so doing to provide movement and transport, supply, electrical and mechanical engineering and quality assurance support.

Training Command

Training Command, whose headquarters is in Sydney, is responsible for all aspects of the training of individuals in the skills necessary for them to take their places in units. Also the command is responsible for the development and publication of doctrine. With the exception of the Royal Military College, Duntroon, all the Army's schools and training establishments, of which there are thirty, are under the command of Headquarters Training Command.

Collective training of units and formations is the responsibility of Headquarters Field Force Command.

Military Districts

The various Districts are:

- 1st Military District - Queensland
- 2nd Military District - most of NSW, ACT, Norfolk Island
- 3rd Military District - Victoria and parts of Southern NSW
- 4th Military District - South Australia and the Broken Hill area of NSW
- 5th Military District - Western Australia less the Kimberley region

6th Military District - Tasmania

7th Military District - Northern Territory plus the Kimberley region of Western Australia.

Military district organisations are responsible for providing local administrative support for formations, units and members of the functional commands located within the military district boundaries.

The responsibilities of commanders of military District may be summarised as follows:

- The command of assigned formations and units.
- Liaison with other arms of the Defence force, State authorities and Commonwealth Government regional offices in the States and the provision of appropriate assistance if required.
- The provision of local administrative support to all units in the district.
- The management of Army controlled land, barracks, training areas, accommodation and facilities in the military district.

ORDER OF BATTLE

The Order of Battle of the Army is detailed in Appendix 1 of the Defence Report 1984/85 showing formations, units, major equipments and locations.

Field Force Command

The formation headquarters and major units of Field Force Command are listed below together with their major equipments where applicable.

Formations/Units	Major Equipment
3 Divisional Headquarters (including 2 Reserve)	
1 Divisional Field Force Group (Reserve)	
7 Brigade Headquarters (including 4 Reserve)	
1 Armoured Regiment	Leopard Tank
5 Reconnaissance Regiments (including 4 Reserve)	Fire support vehicle M113A1
1 Armoured Personnel Carrier Regiment	M113A1
6 Field Artillery Regiments (including 4 Reserve)	105mm Howitzer
3 Independent Field Artillery Battalions (Reserve)	105mm Howitzer

Formations/Units	Major Equipment
2 Medium Artillery Regiments (including 1 Reserve)	155mm Gun
1 Air Defence Regiment	Rapier SAM
4 Field Engineer Regiments (including 3 Reserve)	
3 Construction Regiments (including 2 Reserve)	
1 Survey Regiment	
2 Signal Regiments	
22 Infantry Battalions (including 16 Reserve)	
1 Special Air Service Regiment (including an anti-terrorist element)	
2 Regional Forces Surveillance Units (Reserve)	
2 Commando Regiment Companies (Reserve)	
1 Aviation Regiment	Porter Nomad Bell 206B-1
1 Transport Regiment (with Reserve elements)	
1 Terminal Regiment (with Reserve elements)	
6 Cadet Groups	

The two major operational formations of the Field Force are the 1st Division (Regular) and the 2nd Division (Reserve). Some integration of Regular and Reserve formations has been achieved by continuing to have a Reserve brigade (7th Brigade) located in South Queensland under command of 1st Division. The Divisional Field Force Group in Victoria and Field Force Groups regionally located in other States are seen as being able to be expanded into further divisions as required. Also under command of Field Force Command are a number of Corps Troops units such as armoured and cavalry regiments, medium artillery regiments (Regular and Reserve), the air defence regiment, electronic warfare units and the Special Air Service Regiment, together with a range of Regular and Reserve second line logistic and Communication Zone units including construction engineers, medical, transport, air transport, water transport and terminal units. It is important for the balanced development of the Army's capabilities that further logistic elements are raised as part of the Field Force operational structure.

1st Division

The major component of the field force is 1st Division with its headquarters located in Brisbane. It comprises three regular brigades and one reserve brigade.

A need has been established for the Army to possess 'light', 'standard', and 'heavy' capabilities as well as certain other specialisations such as parachute and mechanised capabilities. These capabilities are provided for within 1st Division and are achieved by the following objectives given to the regular elements of the Division:

Headquarters 1st Division

The primary capability of Headquarters 1st Division is to command the Division.

Its secondary objectives are to:

- develop and practise command and control techniques and procedures at Divisional level;
- be prepared to provide the Army Component of a joint Force Headquarters;
- develop, in conjunction with Headquarters Field Force Command, the capability for contingency deployments including peacekeeping operations involving both combat and logistic units; and
- develop concepts for amphibious operations including naval gunfire support, close air support and associated logistic aspects.

1st Brigade

The primary objectives of 1st Brigade are to:

- develop and practise command and control techniques and procedures at formation level;
- develop the techniques of mechanised and airborne operations; and
- maintain the capability to operate as an infantry formation.

Its secondary objectives are to:

- be capable of reinforcing 6th Brigade for operations in open country;
- develop a capacity for amphibious deployment; and
- be prepared to undertake response force tasks in accordance with stated aid to the civil power contingencies.

3rd Brigade

The primary objective of 3rd Brigade are to:

- develop and practise command and control techniques and procedures at formation level;
- develop a capability for operations on light scales; and
- be ready to deploy as the Brigade element of the Operational Deployment Force (ODF).

Its secondary objectives are to:

- develop a capability for operations in tropical areas including jungle warfare;
- develop a capability for amphibious deployment; and
- be prepared to undertake response force tasks in accordance with stated aid to the civil power contingencies.

6th Brigade

The primary objectives of 6th Brigade are to:

- develop and practise command and control techniques and procedures at formation level;
- develop a capability for conventional operations as a predominantly infantry force, with emphasis on warfare in open country; and
- be capable of reinforcing 3rd Brigade.

Its secondary objectives are to:

- develop a capability for operating with ships of the Navy's Amphibious Squadron;
- develop a capability for operating in built-up areas; and
- be prepared to undertake response force tasks in accordance with stated aid to the civil power contingencies.

Reserve Formations

2nd Division, 7th Brigade of 1st Division and Reserve brigades and battalions of Field Force Groups are presently structured as standard infantry formations and units. Their objectives are:

- to develop and maintain the capability for conventional warfare; and
- to provide the basis for future expansion.

Logistic Command

The major units of Logistic Command are:

Headquarters, Logistic Command
6 Transport and Movement Group Headquarters
3 Supply Group Headquarters
6 Supply Battalions
3 Electrical and Mechanical Group Headquarters
5 Base Workshop Battalions.

Training Command

The major units of Training Command are:

Headquarters Training Command
Officer Cadet School (ceases in December 1985)
Command and Staff College
Recruit Training Battalion
Land Warfare Centre
Parachute Training School
17 corps training centres and schools
9 Tertiary Institution Training Units (Reserve)

The Army Reserve

As part of the Total Force structure of the Army, the Army Reserve has the same roles as those described for the Regular Army. The Reserve as a whole is concerned with meeting future expansion although some units with specific roles and tasks may need to be brought closer to Regular Army states of readiness.

Integration of Regular and Reserve units in the field force is increasing with eleven units involved in the latest phase. This is a further move towards the Total Force structure and reflects the important part which dedicated reservists have in providing for the future defence of Australia.

There will always be a need for more manpower in war or time of emergency than the nation can afford to maintain in peace. The Reserve constitutes the flexible source of formations, units and trained soldiers to supplement and complement the Regular Army. The Reserve will enable the Army to tap the expertise of the civil community and will be the repository of those skills which it is not appropriate or practical for the Regular Army to maintain in peacetime. In the latter respect, the support of employers in both the public and private sectors will continue to be a most important factor in the availability and efficiency of the Active Reserve.

Regional Force Surveillance Units

The Army has recently established three Regional Force Surveillance Units. These are Army Reserve units with a strong regular component, raised and equipped for a surveillance role in remote areas of Australia. North West Mobile Force operates in the Northern Territory and Kimberley region of Western Australia. Pilbara Regiment operates in the central north of Western Australia and the third force, the 51st Battalion, the Far North Queensland Regiment, operates in the Cape York region and Thursday Island.

MOBILITY

Strategic, tactical and battlefield mobility are fundamental requirements and, when time is short, deployment by air with forces organised and equipped for the purpose is essential. Logistic support requirements must be within the capabilities of the available air lift until such time as surface resupply is established. Therefore, part of the Army must be capable of operating on light scales as an air-portable and tactical air-mobile force.

Tactical air-mobility and medium and strategic air-lift for the Army are provided by the RAAF in Iroquois and Chinook helicopters and Caribou and Hercules fixed-wing, tactical, short to medium range aircraft. The Iroquois element can transport tactically a company group in one lift with associated gunship support; the Chinooks can, in one lift, transport a field artillery battery with its ammunition.

A Caribou can carry 26 fully equipped troops. A Hercules can carry 92 troops or 64 paratroopers.

ARMY PROJECT STATUS

The status of the current Army projects is set out in Annex B to Part Five.

**ANNEX A TO PART FIVE
ARMY OFFICE COMMITTEES**

Chief of the General Staff's Advisory Committee (CGSAC)

Chairman: Chief of the General Staff
Members: Deputy Chief of the General Staff
Chief of Operations
Chief of Personnel
Chief of Logistics
Chief of Materiel
Chief of Army Reserve
Inspector General of the Army Reserve

Joint

Secretaries: S01 Army Office Secretariat
S02 (A) Army Office Secretariat

Functions: The function of the CGSAC is to furnish advice to the Chief of the General Staff on such matters as are referred to it by the Chairman, or by any committee member with the approval of the Chairman.

Promotion and Selection (P&S) Committee

Chairman: Chief of the General Staff
Members: Deputy Chief of the General Staff
Chief of Operations
Chief of Personnel
Chief of Logistics
Chief of Materiel
Chief of the Army Reserve
General Officer Commanding Field Force Command
General Officer Commanding Logistic Command
General Officer Commanding Training Command
Commander 1st Division

Secretary: Military Secretary

Function: The P&S Committee is an advisory body to the Chief of the General Staff. It has no statutory authority. Its functions are to:

- make recommendations to the Chief of the General Staff concerning the promotion of officers of the Regular Army to the ranks of Colonel and Lieutenant Colonel;
- advise the Chief of the General Staff on: promotion of officers of the Regular Army to the ranks of Brigadier;
- the selection of officers for nomination to attend the Royal College of Defence Studies, National Defence College of Canada, National Defence College of India, and
- the Australian Administrative Staff College; and the selection of officers for nomination for appointments to the personal staffs of the Sovereign and Governor General.

The Committee may be called upon to advise the Chief of the General Staff on:

- the promotion of officers to the rank of Major General;
- the appointment of officers in the rank of Brigadier; and
- recommendations for Honours and Awards.

Army Programme and Estimates Committee (APEC)

Chairman: Deputy Chief of the General Staff

Members: Chief of Operations
 Chief of Personnel
 Chief of Logistics
 Chief of Materiel
 Chief of the Army Reserve
 Director General of Coordination and Organisation
 Assistant Secretary Resources Planning - Army
 Assistant Secretary Budgets and Estimates (Services)
 Assistant Secretary Civil Personnel
 Chief Executive Officer, Budgets and Estimates (Army)

Joint

Secretaries: S01 Army Office Secretariat

Function: The APEC is an advisory body to the Chief of the General Staff. It has no authority. Its functions are to:

- examine the Army element of the Five Year Defence Programme (FYDP) and the annual draft estimates of expenditure prepared by vote co-ordinators and submit recommendations concerning them;
- examine the progress of expenditure in the Army Votes and make recommendations for the control of expenditure; and
- examine the situation in regard to authorizations and advise the steps necessary to ensure that planned expenditure in each financial year is achieved.

Appointment and Promotion (A&P) Committee

Chairman: Deputy Chief of the General Staff

Members: Chief of Personnel
 Military Secretary

Secretary: S01 (Military Secretary 1)

Functions: The A&P Committee is an advisory body to the Chief of the General Staff. It has no statutory authority. Its functions are to make recommendations to the Chief of the General Staff on:

- appointments in the rank of Colonel and Lieutenant Colonel in the Regular Army;
- attendance of officers of the Regular Army at overseas courses and training, excluding those courses considered by the P&S Committee;

- promotion and appointment of officers of the Army Reserve to, and of the rank of Brigadier, Colonel and Lieutenant Colonel.

Army Works Committee (AWC)

Chairman: Deputy Chief of the General Staff
 Members: Director General of Coordination and Organisation
 Director General of Accommodation and Works
 Deputy Chief of Operations
 Director General of Personnel Operations
 Deputy Chief of Logistics
 Director of Plans
 Assistant Secretary Resources Planning - Army

Joint

Secretaries: SO2 (B) Army Office Secretariat
 Functions: The AWC is an advisory body to the Chief of the General Staff. It has no statutory authority. Its functions are to:

- review the Army Accommodation Plan annually and make recommendations to the Chief of the General Staff for amendments to the plan;
- examine the Army FYDP for accommodation and works projects with the view to making recommendations to the Chief of the General Staff, through the Chief of the General Staff's Advisory Committee (CGSAC), on their content, programming and priority;
- examine planning briefs for firm FYDP projects with a view to endorsing: the concept of development; and the extent of facilities to be included in the development
- examine and endorse: property development plans for Army installations:
 - New Works Planning List
 - Acquisition Planning List
 - Housing Planning List
- examine and make recommendations to the Chief of the General Staff for the approval of:
 - Draft New Works Programme
 - Draft Design List
 - Draft Acquisition Programme
- examine any other matters affecting facilities referred to by or through Committee members, and Chief of the General Staff or the CGSAC.

Army Development Committee (ADC)

Chairman: Director General of Coordination and Organisation
 Director General of Operations and Plans
 Director General of Army Development
 Director General of Personnel Plans
 Director General of Materiel
 Deputy Chief of Logistics
 Deputy Chief of the Army Reserve

Scientific Adviser - Army
 Assistant Secretary Resources Planning - Army

Joint Secretaries: S02 (B) Army Office Secretariat
 S02 Coordination Director General of Army Development

Functions: The ADC is an advisory body to the Chief of the General Staff. It has no statutory authority. Its functions are to:

- consider and make recommendations to the Chief of the General Staff, for approval of Army Staff Objective, Army Staff Target and Army Staff Requirement;
- provide guidance, allot priorities and issue directives for the conduct of further Army development activities based on approved Army Staff Objectives, Army Staff Target and Army Staff Requirements;
- examine and enforce Major Equipment Submissions prior to their submissions to Defence Central;
- review the Army Equipment Planning Summaries Report and provide guidance to Director of Operational Requirements and Director General of Logistics on the priorities to be allotted for programming of equipment requirements; and
- direct the activities of ADC Research Sub-Committee.

Army Materiel Committee (AMC)

Chairman: Chief of Materiel
 Members: Director General of Army Development Director General of Materiel
 Deputy Chief of Logistics
 Scientific Adviser - Army
 Assistant Secretary Resources Planning - Army

Joint Secretaries: S02(A) Army Office Secretariat
 S02 Coordination, Materiel Branch

Functions: The AMC is an advisory body to the Chief of the General Staff. It has no statutory authority. The AMC is responsible to the Chief of the General Staff, through the Chief of Materiel, for:

- the annual examination of the Capital Equipment Plan and the Six Year Capital Equipment Programme prior to presentation to the Chief of the General Staff for provisional approval, subject to consideration of overall Army programme;
- the annual examination of the Army Office Development List, which sets out the projects and financial estimates to meet the requirements of materiel development for the Army;

- consideration and recommendations for an annual Trials Programme to include all evaluation, user and acceptance trials;
- consideration and recommendation relating to those aspects of overall equipment management which have major operational or logistic implications;
- monitoring of progress of major development projects; and
- examination and recommendation for approval, in appropriate cases, of Army Materiel Requirements.

The AMC is also responsible for:

- examination of materiel matters which may be referred to it by the Chief of Materiel; and
- providing a forum in which all branches, at the appropriate level, can discuss and be kept informed of progress of major materiel projects to meet the requirements of the Army.

Army Reserve Advisory Council (ARAC)

Chairman: Chief of the Army Reserve
 Member: Chief of the Army Reserve
 An employer representative
 A representative of the Australian Council of Trade Unions
 A senior Defence Central representative
 A representative of the Returned Servicemen's League
 A social or behavioural scientist
 A young Army Reserve representative
 Reserve Branch Staff
 Secretary: The ARAC is established under the authority of the Minister. Its functions are to advise the Chief of the General Staff on matters affecting the Army Reserve.
 Function:

Senior Staff Officers Committee (SSOC)

Chairman: Director General of Coordination and Organisation
 Members: Deputy Chief of Operations
 Director General of Personnel Plans
 Deputy Chief of Logistics
 Deputy Chief of Materiel
 Deputy Chief of the Army Reserve
 Assistant Secretary Resources Planning - Army
 Joint Secretaries: SO2(A) Army Office Secretariat
 SO2(B) Army Office Secretariat
 Function: The SSOC is an advisory body to the Chief of the General Staff. It has no statutory authority. Its functions are to:
 - consider and make recommendations on any matter referred to it by:

The Chief of the General Staff (usually through the Deputy Chief of the General Staff); or

committee members acting on their own authority or on behalf of their branch heads;

- consider and make recommendations on the Army's management requirements and priorities for electronic data processing (EDP), including endorsement of draft DP (EDP)s;
- serve as a forum for senior level coordination.

ANNEX B TO PART FIVE

ARMY PROJECT STATUS

Function	Project and planned in service date	1984-85 Outlay	Project Cost	Status
CONTROL AND COMMAND	Austac (Battlefield C2 information processing system) (1988)	\$5m	\$30m	Phase 1 (Test Bed Development) completion due at Enoggera by Thorn-EMI in November 1985.
COMMUNICATIONS	Raven Digital HF and VHF (man-portable combat radios) (1988)	\$5m	\$325m	Introduction into service will commence in 1988.
	Parakeet (Mobile digital Communications system) (1991-92)	\$3m	\$200m	Racal announced as winner of equipment definition phase in September 1983 (\$6.5m).
ELECTRONIC WARFARE	Very High Frequency (VHF) Jammers (1985-86)	\$2m	\$10	November 1981 contract to AEG-Telefunken. Development nearly completed.
	Transportable HF Comms Jammers (1987)	N11	\$10m	In the tender assessment stage.
	Interception and Locating (ESM) Systems (1988)	\$4m	\$20m	November 1982 contract to Sanders (USA).
WEAPONS SYSTEMS	Very Low Level Air Defence Defence Weapons System (VLLADS) (Redeye replacement) (1986)	\$2m	\$12m	March 1985 contract to Bofors (Sweden) for 60 RBS 70 missiles.
	Medium Range Anti-Armour Weapons System (MRAAWS) (1987-88)	N11	\$21m	Project approval awaited.
	Mortar Locating Radars (1986)	\$15m	\$46m	December 1982 contract to Hughes (USA) for seven AN/TPQ-36 radars.
	Hamel (105mm light artillery gun) (1988)	\$10	\$276m	Bendigo and Maribyrnong Ordnance factories into local production already.
	Ammunition capability for operational reserve (1987-88)	\$5m	\$131m	27 types of ammunition and explosives.
	Small Arms Replacement	\$1m	\$166m	Replacement of 80,000 5.56mm rifles and 35,000 machine guns. Austrian Steyr rifle and Belgian machine gun chosen November 1985 - first deliveries 1989.
	Machine Guns (1985-88)	\$3m	\$4.15m	November 1984 order placed for 676 MAG58.
	155mm Howitzers (1985-86)	\$15m	\$35m	39 Howitzers purchased.
	Anti-Tank Mines (1987-88)	N11	\$5m	RFT issued March 1984.
	Water-Replacing 790 M112 light armoured fighting vehicles (1993-95)	N11	\$640m	Phase 2 Project definition (design phase) waiting ministerial approval.
TRANSPORT	Perentie-Land Rover replacement (1986 plus)	\$5m	\$75m	October 1983 evaluation of Leyland Jeep and Mercedes contenders.

PART SIX
THE ROYAL AUSTRALIAN AIR FORCE

ROLES

The roles of the RAAF are to:

- a organise, train, equip and maintain air forces for timely and sustained combat operations to:
 - (i) defend Australia, its territories and its armed forces against attack;
 - (ii) undertake offensive air operations against enemy forces and installations;
 - (iii) control vital areas and to establish and maintain local air superiority as and where required;
 - (iv) carry out air reconnaissance throughout the areas of operational interest; and
 - (v) undertake maritime operations including air and sea surveillance;
- b provide offensive air support to, and tactical air transport for, the Defence Force; and
- c operate strategic air transport aircraft and provide other air transport support for the Defence Force.

COMMAND AND CONTROL

Command of the RAAF is exercised by the Chief of the Air Staff (CAS) through Air Force Office (Canberra). Below Air Force Office, RAAF comprises two functional commands - Operational Command and Support Command.

Air Force Office

The organisation of Air Force Office showing the channels of command and senior staff appointment is as follows:

MINISTER FOR DEFENCE

CHIEF OF THE DEFENCE FORCE (4 star)

AIR FORCE

CHIEF OF THE AIR STAFF (3 star)

SENIOR AIR FORCE OFFICE APPOINTMENTS:

DEPUTY CHIEF OF THE AIR STAFF (2 star)

Director General, Resource Management - Air Force (1 star)

AIR FORCE SCIENTIFIC ADVISER (c)*

CHIEF OF AIR FORCE OPERATIONS AND PLANS (2 star)

Director General, Policy and Plans - Air Force (1 star)

Director General, Operational Requirements - Air Force (1 star)*

Director General, Materiel Projects (1 star)

CHIEF OF AIR FORCE MATERIEL (2 star)*

Director General, Materiel Definition (1 star)
Director General, Tactical Fighter Project - Air Force (1 star)
Director General of Air Force Health Services (2 star)
Deputy Director General of Air Force Health Services (1 star)

CHIEF OF AIR FORCE TECHNICAL SERVICES (2 star)*

Director General, Technical Plans - Air Force (1 star)
Director General, Aircraft Engineering - Air Force (1 star)
Director General, Quality Assurance - Air Force (c)

DIRECTOR GENERAL OF SUPPLY - AIR FORCE (1 star)*

Notes:

- (i) Appointments marked (*) are 'Two Hatted' appointments in which incumbents have dual responsibilities to both the Secretary, Department of Defence and their own Chief of Staff.
- (ii) Appointments marked (c) are civilian appointments.

Air Force Office Committees

Chief of Air Staff Advisory Committee
Annual Flying Hours Conference
Materiel Programming Committee
Air Force Requirements Committee
Employment Standards Committee
Air Force Computing Services Policy Committee
Exchange Programme Review Committee
Works Priority Committee
Test Schedule Committee
Financial Programming Committee

For details of composition and functions of these Committees see Annex A.

Operational Command

Operational Command, with its Headquarters at Penrith, is comprised of the following operational elements and their associated air bases:

The Strike/Reconnaissance Force
The Tactical Fighter Force
The Air Transport Force
The Maritime Force.

Support Command

Support Command, with its Headquarters in Melbourne, is responsible for all air and ground training as well as provision of logistic support for the operational Forces.

ORDER OF BATTLE

The Order of Battle of the RAAF is detailed in Appendix 1 of the Defence Report 1984/85 showing units, types of aircraft and location.

Operational Command

The major units of Operational Command are:

Headquarters Operational Command

- 2 Strike and Reconnaissance Squadrons
- 3 Air Defence and Tactical Support Squadrons
- 2 Maritime Reconnaissance Squadrons
- 1 Strategic Transport Squadron
- 1 Strategic/Special Transport Squadron
- 6 Tactical Transport Squadrons
- 1 Special Transport Squadron
- 3 Air Defence Radar Units
- 1 Forward Air Control Flight

Support Command

The major units of Support Command are:

Headquarters Support Command

- 1 Aircraft Research and Development Unit
- 3 Aircraft Depots
- 3 Stores Depots
- 1 Ammunition Depot
- 3 Flying Schools
- 1 Air Navigation School
- 1 Air Traffic Control School
- 1 Officer Training School
- 2 Technical Schools
- 1 Recruit Training Unit
- 1 Airmen Aircrew Training School
- 1 Defence and Security Training School
- 2 Language Schools
- RAAF Staff College
- RAAF Academy
- Institute of Aviation Medicine
- RAAF Central Band

RAAF Reserve Forces

The RAAF's Reserve Forces contain maintenance and general support elements, but sufficient only for a limited extension of operational capacity.

RAAF reserves comprise three distinct elements:

- Active Reserve
- Specialist Reserve
- General Reserve.

The Active Reserve numbers about 1,200 (against an authorised ceiling of 1,400) and is organised into eight auxiliary (non-flying) squadrons, including a Reserve Staff Group. Its aim is to provide a 'reserve of trained and/or partly-trained reserves which in time of war can be mobilised and absorbed for productive employment with a minimum of additional training'. Officer members of the Active Reserve are volunteers who enlist for an initial engagement of five years and may be extended thereafter for periods of four years. Airmen are required to undertake an initial engagement of two years with the possibility of two-year extensions thereafter. After completion of their active engagement, both categories are required

to remain in the General Reserve for a further period of five years. Members of the Active Reserve, by volunteering, may be appointed to or enlisted into the Permanent Air Force. The Active Reserve auxiliary squadrons are all oriented towards maintenance support. The eight auxiliary squadrons are affiliated with the base on which they are located.

The Specialist Reserve provides the RAAF with supplementary professional services that are not available or not justified within the Permanent Air Force - for example, health, legal, chaplaincy, public relations services. Currently there are about 250 personnel listed. They may be called up periodically for a full-time duty.

The General Reserve, currently about 2,500 in strength, is an inactive reserve in that members have no liability for training or extended service in peace-time. However they are liable for call-out in war time, defence emergency or in 'aid to the civil power'. Members of the General Reserve are largely ex-members of the Permanent Air Force.

Characteristics of RAAF Aircraft

The general characteristics of the RAAF's aircraft are set out below:
Hornet F/A-18 - Tactical Fighter. Introduction into service commenced in 1985 and will continue until the 1990s.

Purpose: Multi-mission or interceptor, air combat, interdiction (including anti-shipping strike and ground attack).

Number: On order 75 F/A-18 aircraft

Type: Twin engine, single seat, mid-wing monoplane

Maximum take-off weight - 45,000 lb

Maximum speed - Mach 1.8

Approach speed - 180 mph (145-165 kts)

Landing speed - 134 mph (115 kts)

Take-off run - 2,500' max. AUV; 1,500 ft light

Armament - 1 x 20 mm cannon

2 x Sidewinder missiles

4 x Sparrow missiles

500 lb bombs

2000 lb bombs

ASM: Harpoon

LGB: GBU-12

Mirage III-0 Fighter, III-D Trainers (2-seat version of III-0). (By the end of 1970, all RAAF Mirage III-0s had been converted to ground attack configuration.)

Purpose: High-speed, high-altitude interceptor and ground attack aircraft

Number: 62 III-0, 12 III-D aircraft

Type: Single engine, single seat, low delta-wing monoplane

Maximum take-off weight - 29,760 lb

Maximum speed at S/L - Mach 1.14

Maximum speed at 30,000 ft - Mach 2.05

Approach speed - 211 mph

Landing speed - 187 mph

Take-off run, according to mission (up to maximum take-off weight) - 2,295-5,250 ft

Landing run, using brake parachute - 2,295 ft

Armament - Two 30 mm DEFA cannon

Two 1,000 lb bombs or 4 x 500 lb laser guided bombs

Matra and Sidewinder air-to-air missiles

F-111C

Purpose: Strike/reconnaissance
Number: 15 F-111C, 4 F-111A, 4 RF-111C aircraft
Type: Twin engine, dual seat, swing-wing monoplane
Maximum take-off weight - 41,500 kg (91,500 lb)
Weight empty - 20,944 kg (46,172 lb)
Maximum speed at height - Mach 2.5, at 50,000 ft
Maximum speed at S/L - Mach 1.2
Service ceiling over - 18,288 m (60,000 ft) plus
T-O and landing run-under - 914 m (3,000 ft)
Range with maximum internal fuel-over - 2,750 nm (5,093 km)
Armament: One M61 multi-barrel 20 mm gun in internal weapons bay, missiles and/or bombs can be carried on wing stations, and/or Harpoon missiles. Pave Tack weapons aiming system is currently being incorporated.

Orion P-3C

Purpose: Anti-submarine, anti-surface vessel, escort and reconnaissance
Number: 20 aircraft
Type: Four-engine, mid-wing, land-based monoplane
Maximum normal take-off weight - 135,000 lb
Maximum level speed at 15,000 ft at AUV of 105,000 lb - 473 mph
Patrol speed at 1,500 ft at AUV 110,000 lb - 237 mph
Take-off run - 4,240 ft
Landing from 50 ft at design landing weight - 2,770 ft
Maximum mission radius at 135,000 lb - 4,300 nautical miles (ferry)
Armament: Bomb-bay can accommodate a 2,000 lb mine, three 1,000 lb mines, 11 depth bombs, eight torpedoes or a combination of two nuclear depth bombs and four torpedoes. Additional torpedoes and mines or Harpoon missiles can be carried in under centre sections and under outer wings.

Hercules C-130E and C-130H

Purpose: Cargo and troop transport
Number: 48 C-130E/H aircraft
Type: High wing, all metal, medium range, land-based monoplane
Maximum normal take-off weight - 155,000 lb
Maximum level speed (at maximum take-off weight)- 384 mph
Maximum cruising speed - 368 mph
Rate of climb at S/L (at maximum take-off weight) - 1,830 ft minimum
Landing run at maximum weight - 2,130 ft
Range with maximum payload (with 5% reserve and allowance for 30 min. at S/L) - 2,420 miles
Range with maximum fuel, including external tanks - 4,700 miles
Take-off run - 3,800 ft
Maximum load - 35,000 lb, can carry 92 troops or 64 paratroopers

Caribou Transport CC-08

Purpose: Short-range transport
Number: 22 aircraft
Type: Twin engine high-wing monoplane
Normal maximum take-off weight - 25,500 lb

Maximum permissible weight for ferry missions - 31,000 lb
Maximum landing weight - 28,500 lb
Maximum level speed at 6,500 ft - 216 mph (at normal maximum
take-off weight)
Rate of climb at A/L - 1,355 min
Take-off run - 725 ft
Landing run - 670 ft
Range with maximum fuel - 1,307 miles
Range with maximum payload - 242 miles
Maximum load - 7,000 lb, can carry 32 troops (26 fully equipped troops)

Iroquois UH-1H Helicopter

Purpose: Tactical air transport, search and rescue, casualty
evacuation, reconnaissance
Number: 60 UH-1H helicopters
Type: Single engine helicopter
Weight (empty) - 5,500 lb
Maximum take-off and landing weight - 9,500 lb
Maximum level speed at S/L - 113 kts (approx.) at maximum
take-off weight
Maximum cruising speed - 87 kts at maximum take-off weight
Rate of climb at S/L -, 1,600 minimum
Service ceiling (at 7,500 lb. AUW) - 15,800 ft
Range with maximum fuel, no allowances - 200 nautical miles

Chinook CH-47C Helicopter

Purpose: Tactical air transport, casualty evacuation and
reconnaissance
Number: 11 CH-47C helicopters, including 3 in reserve
Type: Twin-engined medium transport helicopter
Weight (empty) - 21,464 lbs
Payload - maximum and average - 9,843 kg (21,700 lb), 528 kg (11,650 lb)
Maximum take-off weight - 46,000 lb
Average cruise speed - 114 kts at maximum weight, 139 kts average loading
Mission radius - 37 km (23 miles), S/L maximum weight or 184 miles
6,000 ft average weight
Service ceiling - 4,570 m (15,000 ft)
Ferry range - 700 miles

AS-350B ECUREUIL (Squirrel) Helicopter

Purpose: Pilot training and search and rescue
Number: 18 AS-350 ECUREUIL (Squirrel)
Type: Single engine helicopter
Weight (empty) - 2,860 lb, Maximum take-off and landing weight - 4,630 lb
Maximum level speed at S/L - 169 mph
Maximum cruising speed - 153 mph
Rate of climb at S/L - 2,145 ft/min
Service ceiling - 16,000 ft
Range with maximum fuel, no allowances - 460 miles

Boeing 707-338C

Purpose: Special transport (VIP) and troop/cargo transport, later
conversion to aerial refueling role
Number: 4 aircraft
Type: four engine, mid-wing, land-based monoplane

Maximum take-off weight: 333,600 lb
Maximum cruising speed (at 25,000 ft) 525 kts
Landing run: 2,575 ft (785 m)
Service ceiling: 39,000 ft
Range: 4,000 nautical miles

Dassault Mystere 20

Purpose: Short-range VIP transport
Number: 3 aircraft
Type: Twin-turbo-fan engines, low-wing, land-based monoplane
Maximum take-off weight: 28,660 lbs
Maximum cruising speed: 465 kts (25,000 ft)
Landing run: Approximately 3,000 ft or 915 m
Service ceiling: 42,000 ft
Range: 2,000 nautical miles (approximately)

BAC 1-11

Purpose: Medium-range VIP transport
Number: 2 aircraft
Type: Twin-engine, low-wing monoplane
Maximum take-off weight: 92,000-102,500 lb
Maximum cruising speed: 470 kts (21,000 ft)
Landing run: 4,720 ft or 1,439 m
Service ceiling: 35,000 ft
Range: 1,800 nautical miles (approximately)

Hawker Siddeley 748

Purpose: Aircrew navigation trainer/special passenger transport
Number: 8 navigation trainers, 2 VIP, total 10 aircraft
Type: Twin-engine, multi-crew, mid-wing monoplane
Maximum take-off weight: 45,000 lbs (approximately)
Maximum cruising speed: 244 kts (with 38,000 lbs)
Landing run: 2,035 ft (620 m)
Service ceiling: 25,000 ft
Range: 1,500 nautical miles

Aermacchi MB-326H

Purpose: Jet trainer/light ground attack aircraft
Number: 96 aircraft, comprising of 82 trainers, 14 at OCU
Type: Single-engine, dual-seat, mid-wing monoplane
Maximum take-off weight: 8,300 lbs
Maximum cruising speed: 430 kts
Landing run: Approximately 2,100 ft (635 m)
Service ceiling: 41,000 ft (12,500 m)
Range: Approximately 1,000 nautical miles

Aerospace Airtrainer CT4-C

Purpose: Basic pilot trainer
Number: 48 aircraft
Type: Single-engine, dual-seat, low-wing monoplane
Maximum take-off weight: 2,400 lbs
Maximum cruising speed: 142 kts (10,000 ft)
Landing run: 510 ft
Service ceiling: 17,900 ft
Range: At S/L 102.5 kts 767 nautical miles

CA-25 Winjeel

Purpose: Forward Air Control
Number: 1 flight with 4 CA-25 Winjeels
Type: Single-engine, land-based, low-wing monoplane
Patrol speed: 220 kts
Cruising speed: 120 kts
Endurance: 5.5 hrs at 5,000 ft
Range: Approximately 600 nautical miles

INDUSTRIAL SUPPORT FOR RAAF MAINTENANCE

The RAAF generally carries out all operating level aircraft maintenance and minor equipment maintenance at operational bases using service personnel. Civil contractors are used for a high proportion of major maintenance. This maintenance includes major repair and overhaul of fitted equipments and major repairs, inspections and modifications on non-operational aircraft. Some major maintenance is carried out at RAAF Aircraft Depots, with the Industry/RAAF work allocation being about 70%/30%.

Maintenance of operational aircraft is usually retained within the service, with support aircraft being assigned to industry. This is not a rigid policy and major repairs/modification/refurbishment of operational aircraft may be allocated to industry. For this type of work industry is able to provide valuable design and specialist assistance.

Spares and support equipment in aid of maintenance is normally provided by the RAAF. Industry is sometimes tasked with spares manufacture or procurement for equipment undergoing maintenance.

DETAILS OF RAAF AIRFIELDS

Details of RAAF airfields are set out in Annex B to Part Six.

RAAF PROJECT STATUS

The status of current RAAF projects is set out in Annex C to Part Six.

**ANNEX A TO PART SIX
AIR FORCE OFFICE COMMITTEES**

Chief of the Air Staff Advisory Committee (CASAC)

Chairman: Chief of the Air Staff (CAS)

Members: Deputy Chief of the Air Staff (DCAS)
Chief of Air Force Operations and Plans
Chief of Air Force Materiel
Chief of Air Force Personnel
Chief of Air Force Technical Services
Director General Supply
Assistant Secretary Resources Planning

Secretary: Director of the Office of the Chief of the Air Staff

Functions: To advise CAS on any matter he may refer to it for advice.

Annual Flying Hours Conference

Chairman: Chief of Air Force Operations and Plans

Members: Director General Operational Requirements
Director General Technical Plans
Director General Manpower
Director General Policy and Plans
Director General Resource Management
Director General Aircraft Engineering
Director General Supply
Assistant Secretary Resources Planning

Secretary: Operational Requirements Provisioning Data

Functions: To discuss proposed, authorised and forecast flying hours for ensuing six years.

Materiel Programming Committee

Chairman: Chief of Air Force Materiel

Members: Director General Resource Management
Director General Operational Requirements
Director General Policy and Plans
Director General Manpower
Assistant Secretary Resources Planning
Chief Executive Officer Budgets and Estimates
Director General Technical Plans
Director General Supply

Secretary: Director Project Co-ordination

Functions: Consider RAAF plans policy, resources and priorities in relation to minor capital equipment.
Examine and coordinate divisional minor capital bids for the Air Force Office submission to the Five Year Rolling Programme (FYRP) and the programme supporting the annual Estimates of Expenditure.
Consider and recommend amendments to the Air Programme for Minor Equipment which are the result of supplementary bids.

Air Force Requirements Committee

Chairman: Director General Operational Requirements

Members: Director General Policy and Plans
Director General Manpower
Director General Personnel Services
Director General Technical Plans
Director General Supply

Director General Accommodation and Works
Director General Resource Management
Air Force Scientific Adviser
Assistant Secretary Resources Planning
Director Project Co-ordination

Secretary: Staff Officer Operational Requirements

Functions: Endorsement of Air Force staff requirements, staff targets, and works requirement.

Employment Standard Committee

Chairman: Director General Manpower

Functions: Director General Personnel Services
Deputy Director General Air Force Health Services
Director Personnel Officers
Director Personnel Airmen
Director Personnel Services (A)

Secretary: Personnel Services A1A

Functions: To decide employment suitability of members in the Service.

Air Force Computing Services Policy Committee

Chairman: Director General Resource Management

Members: Director General Operational Requirements
Director General Technical Plans
Director General Manpower
Air Force Scientific Adviser
Assistant Secretary Resources Planning
Director Supply Policy
Director Audit and Service Accounting

Secretary

(Joint): Systems Analyst Personnel; or
Communications and Electronic Requirements - Computers

Functions: Advise CAS through DCAS of all major developments that affect the efficient functioning of RAAF Electronic Data Processing (EDP) EDP systems and provide advice on the implementation of new EDP proposals.

Recommend Air Force policy regarding the implementation and operation of computer based management systems.

Provide guidance to the Air Force representative on the Computing Services Policy Committee (CSPC).

Determine priorities for the maintenance/update of current EDP systems.

Determine priorities for the development of new EDP systems.

Approve Forms DP (EDP) before their submission to Computing Service Division (CSD) for inclusion in the FYDP.

Exchange Programme Review Committee

Chairman: Director General Manpower

Members: Director General Operational Requirements
Director General Supply

Secretary: Officers Manning 4

Functions: Coordinate matters relating to RAAF Officer exchange programmes with Foreign Services.

Works Priority Committee

Chairman: Chief of Air Force Operations and Plans

Members: Director General Policy and Plans
Director General Resource Management
Director General Operational Requirements
Director General Manpower
Director General Personnel Services
Director General Materiel Definition
Director General Accommodation and Works
Director General Technical Plans
Deputy Director General Supply
Director Project Coordinator
Assistant Secretary Resources Planning

Secretary: Works Programming - Air Force

Functions: Consider the annual lists of works programs for Air Force Office and Commands for eligibility and relative priority.
Consider the lists of new works proposed from Air Force Office and Commands for eligibility and relative priority.

Test Schedule Committee

Chairman: Director General Operational Requirements

Members: Director General Aircraft Engineering
Assistant Secretary Resources Planning
Air Force Scientific Adviser
Chief of Staff, Service Laboratories
Trials Executive

Secretary: Technical Plans 4

Functions: Recommend to Chief of Air Force Technical Services (CAFTS), DCAS and Directorate of Trials approval or rejection of test schedules.

Review bi-annually the priorities and currency of tasks allotted to Aircraft Research and Development Unit (ARDU).

Review and report bi-annually to CAFTS, DCAS and Directorate of Trials on ARDU's capability to meet research development test and evaluation requirements considering:

likely future tasks and required resources;

type of tasks being requested;

new techniques and methods employed in the research development trials and evaluation field.

Financial Programming Committee

Chairman: Deputy Chief of Air Staff

Members: Director General Resource Management
Director General Technical Plans
Director General Supply
Director General Accommodation and Works
Assistant Secretary Civil Personnel
Assistant Secretary Resources Planning
Assistant Secretary Service Personnel
Chief Executive Officers Budgets and Estimates

Functions: Examine Air Force Office expenditure programme provisions for inclusion in Annual Estimates and the FYDP to ensure that they are reasonable having regard to Government financial policy and particular restraints, and that authorisation/expenditure provisions are adequate and/or achievable.

ANNEX B TO PART SIX
DETAILS OF RAAF AIRFIELDS

Airfield	Length of Runways (m)	Runway Surface	Altitude
Darwin, NT (jointly operated by RAAF and DoA)	3352	bitumen	94 feet
Tindal, NT (jointly operated by RAAF and DoA)	2743	bitumen	432 feet
Learmonth, WA	3047 3047	asphalt bitumen	13 feet
Pearce, WA	2438 1676	bitumen bitumen	132 feet
Edinburgh, SA	2560 2042	bitumen compacted earth, sealed threshold	58 feet
Laverton, Vic	1524 1524	bitumen bitumen	51 feet
East Sale, Vic	2438 2225	bitumen bitumen	15 feet
Point Cook, Vic	1371 1127 1310 1280	concrete concrete grass, unusable after rain	8 feet
Richmond, NSW	2133	asphalt or bitumen	63 feet
Williamstown, NSW	2438	asphalt or bitumen	23 feet
Wagga, NSW (operated by DoA)	1767 1645	asphalt or bitumen grass	715 feet
Canberra, ACT (jointly operated by RAAF and DoA)	2683 1678	asphalt asphalt	1,817 feet
Amberley, Qld	3048 1524	asphalt and concrete	87 feet
Townsville, Qld (jointly operated by RAAF and DoA)	2483 1097	asphalt or bitumen	11 feet

Airfield	Length of Runways (m)	Runway Surface	Altitude
Derby, WA ^(a)	3050	bitumenous concrete	10 feet
Cape York Peninsula ^(b)			

Notes: (a) Still under construction.
(b) The establishment of a RAAF Base at or near Weipa has been under consideration since 1983. This would fill the air gap between Townsville and Darwin - Tindal (near Katherine).

ANNEX C TO PART SIX
RAAF PROJECT STATUS

Project and Planned in Service Date	1984-5 Expenditure	Project Cost	Status
F/A-18 Hornet (Mirage replacement) (1985-86)	\$912m	\$3396m	Five aircraft delivered to RAAF Base Williamtown. Simulator delayed.
F-111C Weapons Systems Update (New capability) (1988)	\$25m	\$200m	First Pave Tack fitted. F-111C arrived at Amberley in September 1985. Harpoon and GBU-15 weapons not yet procured. ((Two year delay on GBU-15).
New P-3C Orions (Additional Capability) (1985-86)	\$70m	\$300m	Deliveries to 11 Squadron continue.
Boeing 707 Tanker Conversion (New capability) (1989)	Nil	\$50m	No decision despite frequently announced intentions.
Basic Trainer (CT-4 replacement)	\$24m	\$155m (Sept 1983)	Tenders closed September 1985 for 69 aircraft. Shorts Tieveano withdrew. CT-4 update proposals from Hanks Pacific and Millican Aircraft Co rejected. Wamira favoured over Pilatus. Cabinet decision expected in mid-November.
Utility Helicopters (UH-1 Iroquois replacement) (1988)	Nil	\$400m	Final bid clarifications recently submitted. Possible 1986-87 finance.
Airborne Early Warning Aircraft (New capability) (1988)	Nil	\$500m	Lockheed P3 Orion conversion proposed to Government July 1985. Boeing likely to compete.
Photo/Survey Aircraft (1988)	Nil	\$30m	Likely to be delayed again.

Project and Planned in Service Date	1984-5 Expenditure	Project Cost	Status
P-3C Orion Electronic Support Measurers System (1988)	Nil	\$60m	Invitation Register of Interest issued April 1985.

PART SEVEN
REGIONAL DEFENCE PLANNING ARRANGEMENTS*

Department of Defence and Service representatives or commanders are appointed in each State and Northern Territory to handle local Departmental, command and administrative matters as affecting their responsibilities in the region.

Joint Service matters are dealt with by the Joint Service Local Planning Committee (JSLPC) established in each region.

The Chairman of each JSLPC is the senior member of the committee, or in his absence the next senior permanent member present.

When the Committee is to discuss matters involving the use of financial and/or civil manpower resources and liaison with other Government departments and agencies, consideration is given to inviting the Regional Secretary to attend.

The regions in which JSLPCs are established are as follows:

- Northern Queensland (that part of Queensland north of the Tropic of Capricorn but excluding Rockhampton)
- South Queensland (that part of Queensland south of the Tropic of Capricorn but including Rockhampton)
- New South Wales
- Victoria
- Tasmania
- South Australia
- Western Australia (the State of Western Australia other than that part of the state included in 7 Military District)
- Northern Territory and that part of the State of Western Australia known as the Kimberley local government area.

The relevant Departmental representatives or Service Commanders in each region are shown in the table below:

Department Service	Organisation and Region/Area	Commander or Representative
Department of Defence	Regional Office - each State and NT	Regional Secretary; Deputy in NT
RAN	Naval Support Command - NSW	Flag Officer Naval Support Command
	Naval Area - each State and NT	Naval Officer Commanding
	HMAS Cairns North Queensland	Commanding Officer
Army	Headquarters 3rd Brigade North Queensland	Commander

*Source: Department of Defence DI(G) OPS 11-1
(complete revision) January 1984.

Department Service	Organisation and Region/Area	Commander or Representative
	Headquarters 1st Division South Queensland	Commander
	Headquarters Field Force Command NSW	General Officer Commanding
	Headquarters Logistic Command Victoria	General Officer Commanding
	Headquarters Military District SA, WA, Tas, NT	Commander Military District
RAAF	Headquarters Operational Command NSW	Air Officer Commanding
	Headquarters Support Command Victoria	Air Officer Commanding
	RAAF Townsville North Queensland	Officer Commanding
	RAAF Pearce Western Australia	Officer Commanding
	RAAF Edinburgh South Australia	Officer Commanding
	RAAF Darwin NT	Officer Commanding
	RAAF Support Unit Tas.	Commanding Officer

The functions of JSLPCs are:

- to prepare joint plans, in consultation where necessary with the Joint Operations Planning Group (JOPG) for local contingencies;
- to coordinate joint operations and activities of a local nature;
- to provide the joint Service liaison link between the Defence Force and local civil authorities;
- as directed by higher authority, to prepare agreed joint views on matters of a local administrative nature for submission to higher authority (members are to consult their respective superior Service authority in the preparation of such views);
- to coordinate local military administrative matters which have joint Service implications;
- to coordinate local military intelligence and security matters which have joint Service implications; and
- to keep the Chief of the Defence Force (CDF), and through him the Service Chiefs of Staff, informed of those joint Service matters on which the CDF and Chiefs of Staff should be informed.

PART EIGHT
DEFENCE RESEARCH AND DEVELOPMENT

Defence Science and Technology Organization is engaged, inter alia, in research and development in a wide variety of perceived defence requirements. To provide for this, a number of establishments have been built up over the years with the role of conducting specific research and development with both long and short term objectives. This role is directed to:

- the development of new equipment which will improve military effectiveness
- the physical environment in order to:
 - find improved ways of utilising military equipment;
 - improve the effective service life of equipment;
 - discuss new techniques for achieving stated military aims
- the military environment to discover new tactics or equipment to meet potential enemy capability; and
- materials suitable for the physical and military environments.

The various research establishments, their functions and their divisional organisations are set out below.

Aeronautical Research Laboratories (ARL)

ARL undertake research and development in areas of significance to Defence and on specific Defence projects particularly in the field of aeronautics. Act as consultants and make investigations for the Defence Force, government departments and authorities and industries engaged on Defence work; carry out background research as required for the proper execution of the above functions; assist in the civil work where special equipment or expertise at ARL is required.

Aerodynamics Division carry out aerodynamic measurements and research at low and transonic speeds, and prediction of flight behaviour of fixed and rotary wing aircraft; wind tunnel investigations and measurements.

Materials Division do research on aircraft materials, particularly related to the detection of deterioration in service, its likely consequence and remedial action; the application of such research to practical problems.

Aero Propulsion Division establish and maintain competence in the general field of air-breathing propulsion by research and exploratory investigations; apply the competence thus established to procurement of advice for the ADF, for life-of-type support or for local development of such propulsion equipment; establish and maintain facilities and equipment necessary for the above work; and, as directed, undertake related activities which are appropriate to the skills and facilities of the Division.

Structural Division carry out research related to the structural strength, efficiency and safety of aircraft, particularly aero-elastic effects and fatigue life predictions and monitoring, and to aircraft vulnerability; and application to specific aircraft operational problems.

Systems Division undertake analysis of systems and operational studies, particularly those involving a human operator and related to military aircraft; undertake supporting field trials to validate or extend available data; carry out R & D projects as agreed.

Materials Research Laboratory (MRL)

MRL provides research and development support to all branches of the Defence Force by establishing and maintaining scientific and technical expertise in particular fields relevant to the supply and operation of defence material including: materials aspects of armaments and Defence equipment; explosives and ammunition; instrumentation and standards of measurement, and the protection of personnel and equipment.

Metallurgy Division
Physics Division
Physical Chemistry Division
Organic Chemistry Division
Engineering Support Division

Armed Forces Food Science Establishment (AFFSE)

AFFSE determines the energy and nutrient requirements of the Defence Force personnel under all conditions in which they may be expected to operate; translate requirements into operational ration packs and static mess feeding entitlements, experimental processing and packing of special ration pack components and development of survival packs; conduct troop feeding trials and prepare food specifications; sponsor extra-mural food research and advise industry on new food forms and processes.

Joint Tropical Trials and Research Establishment (JTTR)

JTTR control, develop and maintain facilities and equipment provided for the Defence Force and the Department to conduct trials, tests, research and investigations for the determination of the effects of tropical environments upon materials and equipment; conduct, and report on specific tasks; provide support for other agencies in the conduct of approved tasks; carry out research and investigation into the mechanism of degradation, measurement of effects and the classification of tropical environments; participate in the program of work jointly sponsored by the United Kingdom and Australia.

Defence Research Centre - Salisbury (DRCS)

Headquarters have executive and advisory responsibilities for matters concerning the Centre and a forum for consultation and negotiation on matters of common interest to Heads of laboratories.

Advanced Engineering Laboratory (AEL) study engineering feasibility, develop, design, manufacture, test and evaluate prototype systems and equipment associated with Services and R & D Laboratories' tasks and defence projects in mechanical, electronic and communications engi-

neering fields; provide advanced manufacturing techniques and processes, quality engineering, environmental testing, drafting, graphic design documentation and publishing services.

Communications and Electronic Engineering Division
Mechanical Engineering and Workshops Division
Trials and Technology Support Division

Electronics Research Laboratory (ERL) carry out research and development in radio, electronics, radar, infra-red applications, optics, electro-optics, electronic warfare, surveillance and navigation; run consulting services for the Armed Forces and the rest of the Department.

Radar Division
Electronic Warfare Division
Optoelectronics Division

Weapons Systems Research Laboratory (WSRL) do research and development related principally to weapon systems and remotely-piloted vehicles, aeroballistics, rocket propulsion, gun propulsion, and underwater detection systems.

Aeroballistics Division deal with research on weapon flight dynamics using mathematic models and flight trials; aerodynamics research using wind tunnel and free flight dynamics; studies of ballistic weapon systems, background research in ballistics; and conduct field experiments in support of these activities.

Propulsion Division research into rocket and gun propellants, rocket and gun propulsion; develop and test rocket motors for experimental and Service use; and research in related materials.

Weapon Systems Division deal with research and development concerning the operational requirements for weapon systems, feasibility and project studies of complex and/or guided weapon systems, analysis and operational studies of weapon systems using mathematical models; research in guidance and control systems generally related to guided weapons and remotely-piloted vehicles, and research in underwater acoustics and underwater detection systems.

Maritime Systems Division

Royal Australian Navy Research Laboratory (RANRL) undertake research into underwater acoustics, oceanography, sonar, mining, and mine countermeasures; conduct operations research studies and analyse maritime exercises; provide scientific advice and assistance to the Services; engage in research in support of existing weapons and equipment and the research support of possible future developments and of new weapons and equipment.

PART NINE
DEFENCE PRODUCTION AND DEFENCE ORIENTED INDUSTRY

A. DEFENCE PRODUCTION

Policy

On 11 December 1984, the Government decided, inter alia, to abolish the Department of Defence Support and allocate most of its responsibilities to the Department of Defence. This was done in the light of experience of the Government's first term of office which showed that the needs of defence policy making and of the defence industry would be better served if all related responsibilities were brought together within the one department.

The close relationship which had developed between the Department of Defence Support and defence industry was to be continued under the new arrangement.

Responsibility for offsets policy and the administration of non-defence offsets was allocated to the Department of Industry, Technology and Commerce.

Office of Defence Production (ODP)

To achieve the above within the Department of Defence, ODP was established with the following role and objective.

Role. The role of ODP is to ensure the effective and efficient operation of the Government-owned factories and dockyards.

Objective. Within overall Defence policy, financial and priority guidelines ODP has the objective of providing commercially oriented industrial support for the Australian Defence Force in both peace and war. This objective requires ODP to provide optimum industrial support to the Defence Force in terms of:

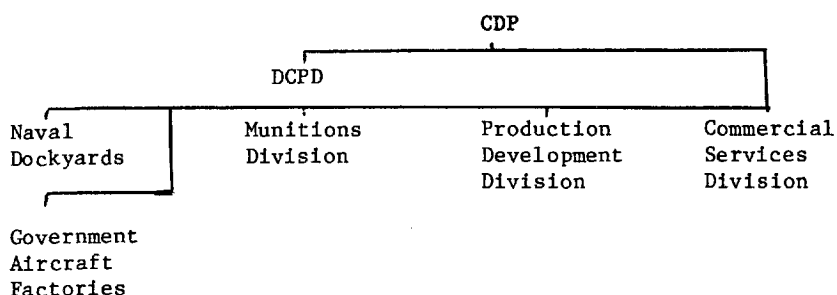
- repair, overhaul and adaptation of military equipments
- design, production and supply of Defence materiel
- development for strategic purposes of designated production capacities and capabilities.

ODP comprises two major elements - first, a management group located within the Department of Defence; and, second, the group of production establishments, as outlined below.

Management Group

This group is headed by the Chief of Defence Production (CDP). He is assisted by the Deputy Chief of Defence Production (DCDP) who is responsible for the higher level direction of the work of the Naval Dockyards, Government Aircraft Factories, Munitions Division and the Production Development Division. There is also the Commercial Services Division directly under the control of CDP.

The following is a chart of the organisation:



NAVAL DOCKYARDS

Garden Island Dockyard, New South Wales

Function: Garden Island is principally concerned with refitting, repair and modification and is undergoing major modernisation to improve its ability in these areas and to create a fleet base which is able to cope with the demands of modern naval vessels and systems.

Williamstown Dockyard, Victoria

Functions: Williamstown Dockyard, planned as the principal construction yard for destroyer size ships, is also being modernised with the view to the possible building there of FFG type vessels for the Royal Australian Navy.

GOVERNMENT AIRCRAFT FACTORIES AND FACILITIES

Government Aircraft Factories, Fishermen's Bend and Avalon, Victoria

Functions: Government Aircraft Factories (GAF) Fishermen's Bend and Avalon are involved in the design, development, manufacture and maintenance of aircraft, guided weapons and other aerospace products for local or overseas markets, including after-sales support.

Aircraft Engineering Workshop, Pooraka, South Australia

Functions: Aircraft Engineering Workshop (AEW), Pooraka, provides a quick response on low volume production of components mainly unprocureable or only available on long lead times from overseas.

Guided Weapons Support Facility, St. Marys, New South Wales

Functions: Guided Weapons and Electronic Support Facility (GWESP), St Marys, undertakes comprehensive maintenance and post design support for Defence electronic components, assemblies and systems including testing, evaluation and repair.

MUNITIONS DIVISION

Albion Explosives Factory (AEF), Victoria

Functions: AEF Manufacturers TNT and RDX-based high explosives, double and trip-base gun propellants and extruded double-base rocket motors.

Ammunition Factory Footscray (AFF), Victoria

Functions: AFF manufactures small arms and medium-calibre ammunition cartridge cases, projectiles, fuzes and primers.

Explosives Factory Maribyrnong (EFM), Victoria

Functions: EFM fills and assembles rocket motors and associated explosive devices, manufactures double and triple-base gun propellants, designs and develops rocket motors, carries out investigations and developments in the fields of explosives, paints and chemicals, and is the design procurement and commissioning authority for major capital projects for the explosives factories.

Mulawa Explosives Factory (MEF), New South Wales

Functions: MEF produces propellants for various small arms, mortar and larger calibre gun ammunition and double-base casting powders for the manufacture of rocket motors.

Munitions Filling Factory, St Mary (MFF), New South Wales

Functions: MFF fills and assembles gun and mortar ammunition, bombs, warheads, anti-tank rockets and pyrotechnical stores.

Ordnance Factory Bendigo (OFB), Victoria

Functions: OFB manufactures ordnance equipment for the Armed Services, reconditions guns and gun mountings, produces bomb bodies, ammunition clips and links, undertakes gear-cutting and carries out fabrication and machining of heavy equipment.

Ordnance Factory Maribyrnong (OFM), Victoria

Functions: OFM manufactures ordnance, projectiles, bomb body forgings, depth charges, missile launchers, generators, specialised pressure vessels, rocket motor hardware, gun mountings, heavy and general engineering items test equipment for defence application.

Small Arms Factory (SAF), Lithgow, New South Wales

Functions: SAF manufactures military personal arms and provides support services for their overhaul, repair and modification. It also manufactures ammunition components and other defence hardware in the field of light and precision engineering.

AUSTRALIAN GOVERNMENT CLOTHING FACTORY (AGCF), COBURG, VICTORIA

Functions: AGCF manufactures uniforms, other clothing and accoutrements for the Services, other Government Departments and semi-Government instrumentalities.

PRODUCTION DEVELOPMENT DIVISION

The functions of this division are:

- Supporting the development and improvement of production capabilities in ODP production establishments, with particular regard to technological and equipment developments and the utilisation of improved techniques and methods
- Central Office planning and coordination of defence production projects and ODP inputs into Departmental approval processes in respect of these
- within overall Defence employment policies advise on employment development policies and practices for the ODP and direct their implementation.

The division consists of three branches:

Projects
Technology
Employment Development.

COMMERCIAL SERVICES DIVISION

Under the direct control of CDP this Division provides management support in planning, resource management and systems functions. It also has responsibility for the development of strategies for the marketing of products produced by ODP establishments and for Project MURAD.

The Division consists of four branches and an outposted section:

Budgets Accounting and Supply

Planning and Marketing

Computing and Systems

MURAD Review (Joint Management Review of Administrative Functions in the Munitions Factories)

Facilities Section (to be staffed from Defence Facilities Division).

B. DEFENCE ORIENTED INDUSTRY

As well as having a substantial commercial capability, Australian industry provides a range of products and services for the Australian Defence Force. The Government aims to provide opportunities for Australian industry

further to develop this capability through its policies on offsets in relation to both purchases of defence equipment from overseas suppliers and all other purchases from all sources of overseas supply where government funds are involved or where there is government involvement in the purchasing decision.

Involvement may be achieved in a number of ways, including the manufacture of part of the equipment in Australia; the manufacture of similar equipment for sale to customers of the overseas supplier; collaborative proposals between the Australian firm and the supplier in the conceptual design, development and production of the equipment or equipments of similar technology; and research and development programs.

In addition to the Government owned aircraft and munitions factories and naval dockyards which operate under the direction of the Office of Defence Production (ODP) as outlined earlier in this part of the compendium, there are 6714 officially listed commercial firms in Australia which have expressed interest in defence or offsets work and are generally able to:

- undertake work related to the Australian industry participation and provisions of defence capital equipment purchases as a prime or subcontractor and/or
- participate in offsets programs against purchases by the Australian Government or organisations which are funded or sponsored by the Government.

These firms are listed in the Directory of Australian Defence and Offsets Oriented Industry produced by the Department of Defence Support and published by AGPS in April 1984.

The Australian Defence Equipment Catalogue 1985-86 produced by ODP aims to provide a single source of information to acquaint potential overseas customers with the scope and nature of defence and related products and services available in Australia. The catalogue amplifies much of the information available in the Directory referred to above.

Commercial firms involved in the many aspects of defence equipment are spread in varying degrees to all States of the Commonwealth with the greater concentrations in NSW and Victoria. To promote and advance the interests of these firms, Defence-Oriented Industry Associations have been established in each of the capital cities. These are summarised in Annex A to Part Nine.

**ANNEX A TO PART NINE
DEFENCE-ORIENTED INDUSTRY ASSOCIATIONS**

Metal Trades Industry Association of Australia (MTIA)

Role: The basic role of MTIA is to help achieve a business environment which will enable its members to operate profitably and efficiently.

Functions: The MTIA sees one of its roles as making representations on behalf of its members to Governments and other authorities in order to ensure that policies adopted in relation to industry are realistic and workable in a free enterprise economy. In addition, the Association provides advice and information to its members on relevant aspects of Government policy concerned with taxation, tariffs, customs, trade practices, industrial research and development, export assistance and statistical information. It also facilitates meetings between members and Government on these matters.

National Office - Canberra

State Branches - NSW, Vic, Qld

Affiliated Associations - SA, WA.

Defence Manufacturers Council of MTIA

Functions: The Defence Manufacturers Council (DMC), which operates under the umbrella of the MTIA, is a focal point for its members who deal with the Commonwealth on matters relating to Defence procurement. It also undertakes studies concerning opportunities for participation by industry in particular projects, Defence procurement methods and procedures and administrative matters. The DMC is a relatively new organisation (established 1979) and is actively seeking to increase its membership. DMC Branch Offices are located as for the National and State MTIA Offices.

Heavy Engineering Manufacturers' Association (HEMA)

Functions: HEMA was formed in 1968 to foster Government/Industry cooperation in the development of a nationally-owned basic resource industry. Member firms are engaged in processing steel to produce almost any type of capital equipment.

National Office - Canberra.

Defence Manufacturers Association of Australia (DMAA)

Functions: The DMAA's objectives are to act as a voice and focal point for the Australian defence manufacturing industries and to promote the Australian defence industry through liaison with appropriate Government Departments. Although the DMAA currently resides in the premises of the Australian Chamber of Manufacturers, it sees itself as being independent of that organisation. Its membership comprises firms located in NSW, Vic, SA and Qld.

National Office - Melbourne

Branches - Qld, WA.

Defence Industries Association of Queensland (DIAQ)

Functions: The DIAQ, which is affiliated with the Queensland Confederation of Industry, has the function to act as a voice and focal point for Queensland Defence industries.

Office - Brisbane.

Defence Industries Council (DIC) of Western Australia

Functions: The DIC of WA was formed in 1980 to rationalise and coordinate the mutually complementary interests and activities of Western Australia's major Defence-oriented industry associations. The Council aims to secure WA as large a part as possible of the national Defence/Services market as well as to provide a focal point for WA Defence-oriented industry in dealing with public authorities.

Office - Perth.

Australian Electrical and Electronic Manufacturers' Association Limited (AEEMA)

Functions: To represent the electrical, electronic and telecommunications industries to Commonwealth and State Governments. The AEEMA provides service programs for the industry with statistical information, technical standards, product displays and exhibitions, industry seminars, promotions and training.

National Office - Canberra

State Branches - NSW, Vic, SA.

Australian Electronics Industry Association (AEIA)

Functions: The AEIA, which is a division of the Australian Electrical and Electronic Manufacturers Association of Australia (AEEMA), sees its role as maximising Australian industry involvement in major electronics projects, both in the public and private sectors. The Association also makes submissions to various Government Inquiries and Authorities on matters affecting its members.

National Office - Sydney.

Confederation of Australian Industry (CAI)

Functions: The Confederation of Australian Industry (CAI) was established in 1977 following a merger of the Associated Chambers of Manufactures of Australia (ACMA) and the Australian Council of Employer's Federation (ACEF). CAI provides a national forum, capable of involving the totality of industry and commerce in Australia.

National Office - Melbourne

Branch Office - Canberra.

Australian Chamber of Commerce

Functions: Sees its role as representative for Tertiary service sectors of industry. In addition the Association provides information to its members on Government activities, policies and legislation; and also makes submissions to Government and acts as a voice for industry.

National Office - Canberra
Affiliated associations - in all states.

Business Council of Australia

Functions: The Business Council of Australia was formed through the merger of the Australia Industries Development Association (AIDA) and the Australian Business Roundtable in September 1983, to conduct research and advocacy in pursuit of public policies conducive to industrial development in Australia.

National Office - Melbourne
Branch Office - Canberra.

Standards Association of Australia (SAA)

Functions: To prepare, publish and promote the general adoption of Australian standards relating to structures, commodities, materials practices, and operations, and to provide the facilities for this purpose.

National Office - Sydney
State Branch - in all states.

Source: Information Directory, 'Defence-Oriented Industry Associations', Industry Operations Branch, Department of Defence, May 1985.

PART TEN
THE AUSTRALIAN SECURITY AND INTELLIGENCE COMMUNITY*

Introduction

The Australian security and intelligence community consists of more than a dozen major collection, assessment and user organisations, deeply intertwined with their respective range of British and US organisations under the UKUSA arrangements. There are agencies concerned with external intelligence and others with internal security matters and counter-terrorist organisations. There are agencies concerned with the collection of intelligence by technical means, and others with collection by more classical espionage techniques. Each of the military services has also found it necessary to establish its own intelligence and security organisation.

These agencies form a 'community' in the strict sense that there is some identity of professional character and interest. There are numerous interconnections between them, with many having formal liaison offices within other agencies. In addition, there is a great deal of personnel transfer - between the agencies.

Brief History

At the end of World War II there was no overall national agency responsible for the internal security of Australia. From 1938 such responsibility as was possible was exercised by the Army's Directorate of Military Intelligence (DMI). The Commonwealth Investigation branch (CIB - later the Commonwealth Investigation Service) had nominal responsibility but it had neither the resources nor the expertise to do the job.

In early 1948, the Director General of the British MI5 visited Australia and found Australian security arrangements to be quite deficient. The matter was discussed at a meeting between the Australian Prime Minister and the British Cabinet in London in July 1948 and the Prime Minister undertook to institute stricter security arrangements in Australia.

The first agency to be formed was the Australian Security Intelligence Organisation (ASIO) in 1949, followed by the Australian Secret Intelligence Service (ASIS) in 1952. These together with the other agencies formed later and described below comprise the Australian security and intelligence community as it is known today. Its build up had been piecemeal and fragmented as concluded by the Royal Commission on Intelligence and Security in 1977.

Attempts to achieve coordination and overall control were made, but it was not until April 1983 that this was put on a substantial basis with the formation of the National and International Security Committee (NISC). This is now designated the Security Committee of Cabinet.

Management Structure, Organisation and Responsibilities

The management structure of the Australian security and intelligence community is set out in Annex A to Part Ten.

*Source: Richelson, Jeffrey T. and Ball, Desmond, The Ties That Bind: Intelligence Cooperation between the UKUSA Countries - the United Kingdom, the United States of America, Canada, Australia and New Zealand (Allen and Unwin, Boston, London, Sydney, 1985).

The organisation and responsibilities of the various agencies of the community are outlined below.

Security Committee of Cabinet. This Committee is chaired by the Prime Minister with five other members:

- Minister for Foreign Affairs
- Minister for Defence
- Attorney General
- Minister for Resources and Energy
- Special Minister of State

It is responsible for exercising policy control and managerial oversight over the national intelligence community, internal and external, in respect of targets, priorities, activities, organisational requirements, broad allocation of resources, performance and coordination and inter-relationships of the various agencies.

The Security Committee of Cabinet is advised and supported by the Secretaries' Committee on Intelligence and Security (SCIS) comprising:

- Secretary, Department of the Prime Minister and Cabinet (Chairman)
- Secretary, Department of Foreign Affairs
- Secretary, Department of Defence
- Chief of the Defence Force
- Secretary, Department of Finance
- Director General of Office of National Assessments (ONA)
- Director General of Security.

The Secretary of the Attorney General's Department also attends when matters involving ASIO are under consideration.

Office of National Assessments (ONA). ONA is an autonomous body, founded by an Act of Parliament in 1977 under which it reports directly to the Prime Minister. Its functions are:

- (a) to assemble and correlate information relating to international matters that are of political strategic or economic significance to Australia and
 - (i) to prepare reports in relation to such of those matters as are of current significance; and
 - (ii) from time to time as circumstances require, to make assessments in relation to such of those matters as are of national importance;
- (b) to furnish reports prepared, and assessments made, in accordance with paragraph (a) to appropriate Ministers and other appropriate persons;
- (c) to ensure that international developments of major importance to Australia are assessed on a continuing basis; and
- (d) to keep under review the activities connected with international intelligence that are engaged in by Australia and to bring to the notice of relevant Departments and Commonwealth authorities any inadequacies in the nature, the extent, or the arrangements for coordination, of those activities that become apparent from time to time and to suggest any improvements that should be made to remedy those inadequacies.

On 22 May 1985, the Government accepted a recommendation in the report by The Royal Commission on Australia's Security and Intelligence Agencies that a National Intelligence Committee (NIC) be set up to improve the effectiveness of ONA and to improve its liaison with Australia's other Organisation (JIO) described below.

The Defence Signals Directorate (DSD) DSD is described in the Commonwealth Government Directory as an organisation within the Department of Defence responsible for defence signals and communications security. Its existence was not officially acknowledged until the Prime Minister's statement on The Royal Commission On Intelligence and Security on 27 October 1977.

DSD, together with specialist units of the Defence Force is required by the Government to maintain a capability to collect, produce and disseminate foreign signal intelligence and to advise the Government on all matters pertaining to the security of signal communications and related equipments.

In respect of signal intelligence the functions of the Directorate are:

- (a) to develop and maintain a capability to provide signal intelligence in support of the Defence Force; and
- (b) to collect, produce and disseminate foreign signal intelligence to meet the national requirements of the Commonwealth Government.

In respect of communications security, its functions are:

- (a) to provide materials, advice and assistance to Commonwealth Government departments and authorities and the Defence Force on matters relevant to the security of their communications and electronic related activities; and
- (b) through the Secretary to the Department of Defence, to keep the Secretaries' Committee on Intelligence and Security generally informed on the state of communications security.

The Australian Secret Intelligence Service (ASIS) is Australia's overseas intelligence and espionage organisation. Although formed in May 1952 its existence was not officially acknowledged until October 1977 when the Prime Minister stated that its main function was to obtain, by such means and subject to such conditions as are prescribed by the government, foreign intelligence for the purpose of protection or promotion of Australia or its interests. Its functions cover four principal activities:

- (a) the collection of information by clandestine means
- (b) counter-intelligence
- (c) liaison with the intelligence sources of friendly countries
- (d) clandestine or covert activities.

The Australian Security Intelligence Organisation (ASIO) was established by a directive from the Prime Minister on 16 March 1949. In 1979 as a result of The Royal Commission on Intelligence and Security, ASIO was given wider responsibility and increased powers. It is now required to advise the Government on:

- (a) the protection of, and of the people of, the Commonwealth and the several States and territories from
 - (i) espionage;
 - (ii) sabotage;
 - (iii) subversion;
 - (iv) active measures of foreign intervention; or
 - (v) terrorism,

whether directed from, or committed within, Australia or not; and (b) the carrying out of Australia's responsibilities to any foreign country in relation to a matter mentioned in any of the sub-paragraphs of paragraph (a).

The Joint Intelligence Organisation (JIO) was established in 1969. Previously, defence intelligence had principally been the responsibility of the individual Services.

JIO is formally responsible for the preparation of strategic estimates, commentaries and situation reports, both on an immediate and long-term nature, for use by the Defence Department and the Defence Force; for the preparation of papers in response to requests from other departments which have implications for Australia's defence interests; and for continuous monitoring of international developments relevant to Australia's strategic environment. This brief is somewhat less wide than was the case before the creation of ONA.

JIO currently consists of seven directorates as outlined below:

Directorate of Service Intelligence (DSI). The principal responsibility of DSI is the storage and analysis of strategic intelligence which could be required in military operations by the Australian Defence Force.

Defence Intelligence Estimates Staff (DIES) is responsible for providing a general source of expertise in strategic studies and to prepare assessments on broader strategic developments of interest to Australia - such as developments in the strategic nuclear balance between the United States and the Soviet Union and strategic developments in the Indo-Pacific region.

Directorate of Economic Intelligence (DEI) is concerned with detailed studies of aspects of national economics in the Asian and Pacific region and the maintenance of basic data on their economics, industrial capacities and defence industries. DEI has continued even since the creation of ONA to review international economic events against the background of the increasing preoccupation of the world with resources (including food) questions, the increasing interdependence of economies as world trade grows faster than additions to world wealth, the energy crisis, the implications of world inflation for international stability, and the concern of many underdeveloped countries at their slow rates of growth and their efforts to obtain a large share of world product.

Directorate of Scientific and Technical Intelligence (DSTI) is concerned with the collation and analysis of information on the defence technology of major countries in the region of Australia's immediate strategic interest as well as with the assessment of the implications to Australia of major global technological developments. DSTI has particular expertise in the broad fields of advanced weapons technology and nuclear technology.

Directorate of Geography and Social Research (DGSR) is a relatively small group concerned with the nature of government and administration, including the role of military and other security forces, in underdeveloped countries suffering population pressures; it also reports on the influences of ethnic and communal groupings on political stability in countries of particular interest such as Papua New Guinea.

Directorate of Military Planning Staff (DMIPS) is also a relatively small group, the function of which is to coordinate longer term military estimates within JIO.

Directorate of Programmes and Research Support (DPRS) is the largest section of JIO and provides the support functions and facilities for the six assessment and analytical directorates, such as the control and coordination of external-collection tasking, local and overseas liaison, administration, security, training, coordination and rationalisation of computer services, photographic interpretation (PI), printing and drafting services, information storage, distribution and retrieval services, and systems development.

Defence Security Branch (DSB) is part of the Policy Coordination Division of the Department of Defence and is formally tasked with the formulation of central security policy and control and the coordination of both civilian and military security measures and practices.

In many of its functions, DSB liaises closely with organisations such as ASIO, the Dockyard Police and the Special Branches of the State Police Forces.

Counter Terrorism and Protective Security The management and conduct of counter-terrorist and protective security operations in Australia involves a wide variety of Civil Service, police and security agencies, at both State and Federal levels, together with elements of the Australian Defence Force.

The most senior authority in this area is the Standing Advisory Committee on Commonwealth/State Cooperation for Protection Against Violence (SAC-PAV), which was established in 1978 and which consists of senior police and officials from the Federal Government and the eight State and Territory Governments. The function of SAC-PAV is to propose to Heads of Government steps to ensure nation-wide readiness and cooperation between relevant Commonwealth, State and Territorial Government departments, police forces and when appropriate the Defence Force, for the protection of Australia from terrorism.

One of the principal tasks of SAC-PAV is the preparation and maintenance of the National Anti-Terrorist Plan (NATP) which outlines the arrangements whereby two or more governments within the Commonwealth of Australia can jointly respond to an act of terrorism where actions, threats or demands by the terrorists jointly affect their responsibilities and/or interests. The NATP is not an operational plan, but rather a framework within which governments and police forces prepare detailed plans and operating procedures appropriate to their counter-terrorist roles and responsibilities.

Executive support to SAC-PAV and the coordination of its activities is provided by the Protective Services Coordination Centre (PSCC) which is located within the Department of the Special Minister of State.

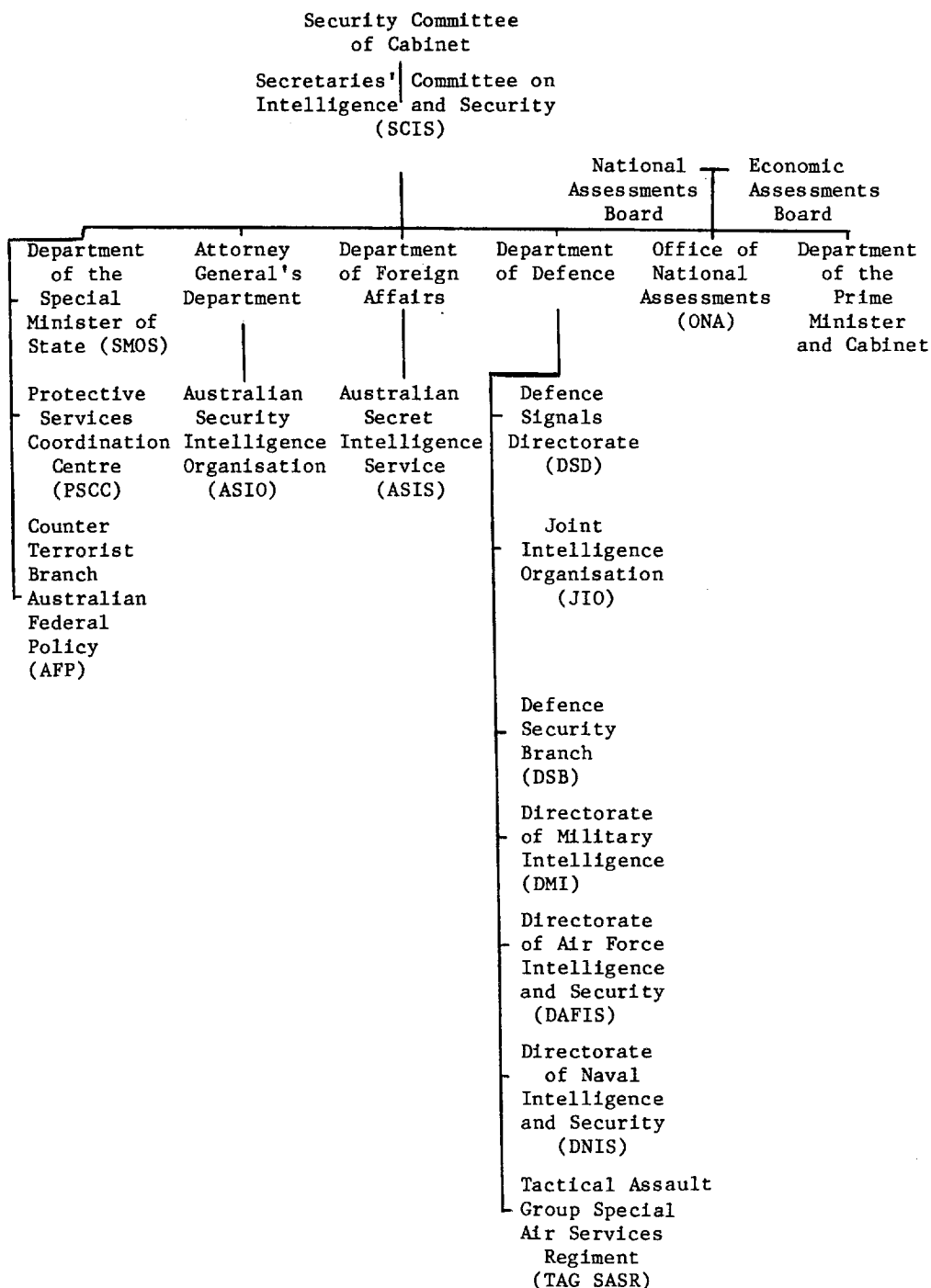
In addition to SAC-PAV, there is within the Commonwealth sphere the Special Interdepartmental Committee on Protection Against Violence (SIDC-PAV), which consists of representatives from those Commonwealth departments and authorities which are likely to have responsibilities for various protective or contingency measures for countering terrorism-PSCC (the Head of which chairs the SIDC-PAV), the Department of Prime Minister and Cabinet, the Attorney-General's Department, the Department of Foreign Affairs, the Department of Transport, the Department of Immigration and Ethnic Affairs, the Department of Defence, ASIO and the AFP.

The actual conduct of anti-terrorist and protective security operations is the responsibility of special police units and elements of the Defence Forces. Most of the State and Territory police forces have elite special weapons and tactics groups. For example, the Victoria Police has a Special Operations Group (SOG), which consists of some 30 officers; NSW has

a Special Weapons and Operations Squad (SWOS); and South Australia has a Special Tasks and Rescue (STAR) unit. In addition, the Australian Federal Police has a Special Branch for counter-terrorist operations.

However, it is recognised that any major terrorist operation would rapidly exhaust the capabilities of these State and Federal police organisations, and that only the armed forces can provide the necessary strength to react in any substantial way. Thus in 1978 Federal Cabinet decided to establish a special army unit organised and trained as a counter-terrorist assault team. Known as the Tactical Assault Group (TAG), this unit is drawn from the Special Air Services Regiment (SASR) based in Perth.

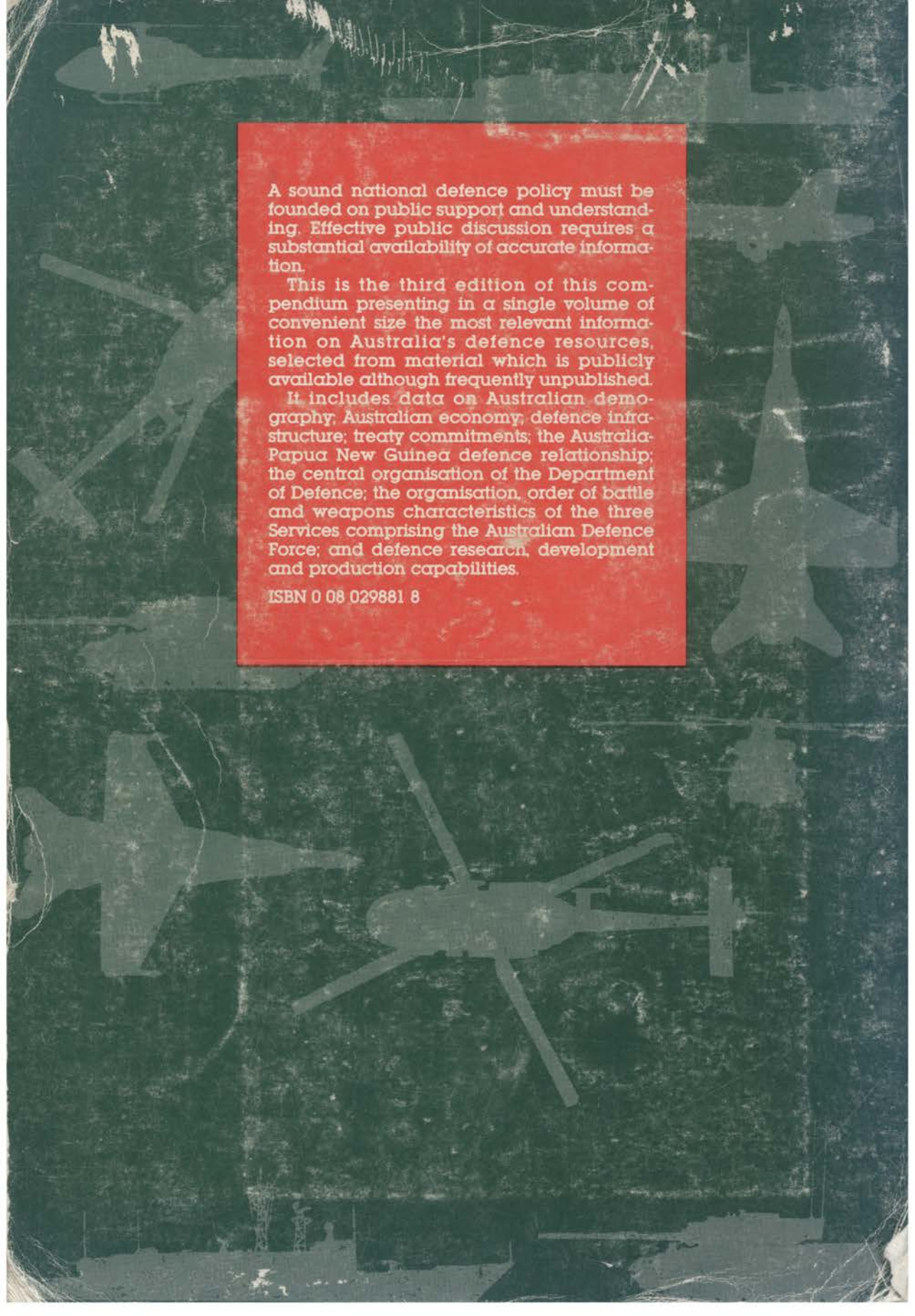
ANNEX A TO PART TEN
THE AUSTRALIAN SECURITY AND INTELLIGENCE COMMUNITY -
MANAGEMENT STRUCTURE



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A sound national defence policy must be founded on public support and understanding. Effective public discussion requires a substantial availability of accurate information.

This is the third edition of this compendium presenting in a single volume of convenient size the most relevant information on Australia's defence resources, selected from material which is publicly available although frequently unpublished.

It includes data on Australian demography; Australian economy; defence infrastructure; treaty commitments; the Australia-Papua New Guinea defence relationship; the central organisation of the Department of Defence; the organisation, order of battle and weapons characteristics of the three Services comprising the Australian Defence Force; and defence research, development and production capabilities.

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