

## CHAPTER 4

### DEFENCE

#### Department of Defence

##### Functions of the Department of Defence

Broadly the functions of the Department of Defence include all aspects of defence policy and the co-ordination and direction of its execution by the Department of the Navy, the Department of the Army, the Department of Air and the Department of Supply. More particularly its functions include strategic appreciations, national intelligence assessments and strategic intelligence reports; defence planning and the deployment of the Defence Forces; principal military adviser to the Minister for Defence; organisation of collective military advice; planning and control of joint military operations; formulation of defence policy objectives; defence programming and disposition of resources to manning, equipment, supplies and works for the Defence Forces, supervision of estimates, allocation of funds among the Defence Group and control of expenditure; scientific advice and formulation of defence research and development policy; formulation of Defence Group policies relating to defence industry and to material procurement and reserves; rationalisation of Service activities and co-ordination of their policies; financial and other common conditions of service in the Defence Forces and during retirement; establishments, postings and promotions where 1 star or 2 star rank is involved; legislation policy for the Defence Group; policy on Defence Group public relations; Defence and Service Advisers abroad; general policy and technical direction of Defence Group electronic data processing project; development and application of EDP; management of Joint Services and inter-departmental machinery engaged in above matters; and civil defence.

##### Organisation, higher defence machinery, and the control of the joint Service machinery

The following are the principal committees of the joint service and inter-departmental advisory machinery within the Department.

The *Defence Committee* is a statutory body consisting of the Secretary, Department of Defence, who is Chairman; the Chairman of the Chiefs of Staff Committee; the Chiefs of Staff of the three Services; the Secretary, Department of the Prime Minister and Cabinet; the Secretary, Department of Foreign Affairs; and the Secretary to the Treasury. Its function is to advise the Minister for Defence on: the defence policy as a whole and the co-ordination of military, strategic, economic, financial, and foreign affairs aspects of defence policy; matters of policy or principle and important questions having a joint Service or an 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 for Defence.

The *Chiefs of Staff Committee* is responsible to the Minister for Defence for professional military advice; preparation of military appreciations and plans; control of joint military operations through designated commanders, and direction and co-ordination of related activities; the exercise of executive functions for the control and administration of special forces of a multi-national nature, the responsibility for which is assigned to the Australian Government; recommending the allocation of resources to joint Service Forces in the field; the exercise of executive functions for the control of joint Service (Military) establishments and organisations; the control and co-ordination of joint Service military training and exercises; the development of joint warfare doctrine; and the development of joint operational requirements.

The *Defence Force Development Committee* consists of the Secretary, Department of Defence (Chairman), the Chairman of the Chiefs of Staff Committee, and the Chiefs of Staff of the three Services. It is responsible for advice to the Minister for Defence on: the development of the Defence Forces as a whole; the inclusion in the five year rolling program of major weapons and equipment capabilities; initiation and review of major studies concerned with the development of the Defence Forces; and review of matters of common interest to members and of progress in the preparation of proposals and appreciations for submission to the Government.

The *Defence Administration Committee* consists of the Secretary, Department of Defence (Chairman), the Chairman of the Chiefs of Staff Committee, the Chiefs of Staff of the three Services, the Secretaries of the three Service Departments and the Department of Supply, and a representative of

the Treasury. Its functions are to review the progress of the Defence Program; consider reports of the Defence (Industrial) Committee; consider priority listing of works projects and programs; consider variations in bases of provisioning and scales of rations, clothing, etc.; consider variations in scales and standards of accommodation; and exercise overall control of the Defence Vote.

The *Defence (Industrial) Committee* co-ordinates and makes recommendations regarding the capabilities of Australian industry to meet the matériel requirements of the Services in peace and war. Members of the Defence Business Board are co-opted as necessary for specific subjects. The *Defence Business Board* is constituted to advise on business matters of common interest to the three Services, or important subjects on which the collective advice of the Board is desired from the business aspect, with a view to promoting efficiency and economy in the execution of the Defence Program. The Board comprises businessmen who serve in a part-time honorary capacity. Three of the members also serve as business advisers to the separate Service Departments.

Far-reaching changes have been made in defence administration over the last few years, designed to provide the Government with the best possible advice in making decisions on defence policy by ensuring that all proposals have been thoroughly examined and that the best available military, strategic, technological, intelligence and economic advice is provided. These changes include the establishment of a Joint Staff, the strengthening of the Defence Science Organisation, the establishment of a Joint Intelligence Organisation, strengthening of the Programme Management and Defence Facilities Division and other areas of the Department to provide greater capacity, the introduction of systems analysis and the introduction of the five year rolling program system based on the concepts of planning-programming-budgeting.

#### Basis of current defence policy

The primary aim of Australian defence policy is to ensure the security of Australia and her Territories.

Because of the close links between Australian security and wider regional security, Australian policy stresses not only immediate direct defence, but also progress and stability in nearby countries. The ANZUS Treaty between Australia, New Zealand and the United States of America remains of primary importance. Australia also participates in SEATO and the Five Power Arrangements. As a contributor to the latter, Australia, along with New Zealand and the United Kingdom maintains forces in Malaysia and Singapore.

#### Personnel strengths

The selective national service scheme, which was in its eighth year of operation, was abolished with effect from 5 December, 1972. Those serving under the scheme were given the opportunity of selecting immediate discharge, completing their term of full-time duty or transferring to the permanent force. Those persons eligible for national service selection who had opted to join the CMF were given a similar opportunity in regard to their CMF obligation.

#### PERSONNEL STRENGTHS OF DEFENCE FORCES, JUNE 1963 TO 1973

##### NAVY

<i>Strength at June—</i>	<i>Permanent Forces</i>	<i>Citizen Forces</i>	<i>Emergency Reserves</i>	<i>Total</i>
1963 . . . . .	11,663	5,433	..	17,096
1964 . . . . .	12,569	5,202	..	17,771
1965 . . . . .	13,503	3,762	443	17,708
1966 . . . . .	14,714	3,797	686	19,197
1967 . . . . .	15,893	3,931	793	20,617
1968 . . . . .	16,454	4,047	904	21,405
1969 . . . . .	16,943	3,971	1,114	22,028
1970 . . . . .	17,304	4,462	897	22,663
1971 . . . . .	17,232	5,093	918	23,243
1972 . . . . .	17,134	5,378	921	23,433
<b>Estimated strength at June</b>				
1973 . . . . .	17,446	5,525	1,100	24,071

**PERSONNEL STRENGTHS OF DEFENCE FORCES  
JUNE 1963 TO 1973—continued**

**ARMY**

<i>Strength at June—</i>	<i>Permanent Forces</i>				<i>Total</i>
	<i>Australian Regular Army</i>	<i>Pacific Islands Regiment</i>	<i>Citizen Forces</i>	<i>Emergency Reserves</i>	
1963 . . . . .	21,944	695	27,341	..	49,980
1964 . . . . .	22,681	812	27,505	..	50,998
1965 . . . . .	25,314	1,415	28,146	288	55,163
1966 . . . . .	32,702	1,732	32,046	662	67,142
1967 . . . . .	41,464	2,246	34,670	889	79,269
1968 . . . . .	42,944	2,406	35,762	1,031	82,143
1969 . . . . .	44,051	2,474	34,256	981	81,762
1970 . . . . .	44,533	2,434	31,397	822	79,186
1971 . . . . .	43,769	2,593	29,364	657	76,383
1972 . . . . .	41,290	2,769	26,578	594	71,231
Estimated strength at June 1973 . . . . .	(a)31,000	2,680	n.a.	600	n.a.

**AIR FORCE**

<i>Strength at June—</i>	<i>Permanent Forces</i>	<i>Citizen Forces</i>	<i>Emergency Reserves</i>	<i>Total</i>
1963 . . . . .	15,840	788	..	16,628
1964 . . . . .	16,564	926	..	17,490
1965 . . . . .	17,720	724	26	18,470
1966 . . . . .	19,358	865	170	20,393
1967 . . . . .	20,130	1,059	303	21,492
1968 . . . . .	21,564	907	397	22,868
1969 . . . . .	22,712	902	467	24,081
1970 . . . . .	22,642	841	668	24,151
1971 . . . . .	22,539	788	700	24,027
1972 . . . . .	22,720	778	685	24,183
Estimated strength at June 1973 . . . . .	22,769	742	730	24,241

(a) Excludes National Service.

**Equipment**

An amount of \$139.9 million was spent on equipment of a capital nature in 1971-72; this included \$23.9 million under credit arrangements with the Government of the United States of America. An amount of \$200.1 million is expected to be spent in 1972-73 of which \$56.8 million will be under the credit arrangements with the United States of America.

The major equipment items received in 1971-72 by the Services included: 10 Skyhawk aircraft, 11 Macchi aircraft, 12 Bell Light Observation helicopters and some 100 M113 Tracked Carriers.

Major new equipment items planned for delivery in 1972-73 include 1 hydrographic ship (HMAS *Flinders*), 6 F111C aircraft, 2 Macchi aircraft, 6 Bell Light Observation helicopters and 4 heavy landing craft (LCH).

**Research and development**

The laboratories of the Department of Supply together with the Services' own technical establishments, have continued to work on projects and investigations in support of Service needs. An extension to the agreement for the conduct of the Woomera Range and its associated technical facilities has been arranged with the United Kingdom, and collaborative programs in space tracking and other selected topics have been arranged with the United States of America.

## Defence expenditure

## DEFENCE EXPENDITURE BY DEPARTMENT OR SERVICE 1967-68 TO 1972-73

(\$'000)

	Defence (a)	Navy	Army	Air	Supply	Other	Total
<b>Actual expenditure—</b>							
1967-68 . . . . .	17,492	223,492	381,019	378,615	90,038	18,877	1,109,533
1968-69 . . . . .	19,077	232,327	410,621	382,559	90,482	29,631	1,164,697
1969-70 . . . . .	23,440	241,140	409,386	301,162	94,091	33,841	1,103,060
1970-71 . . . . .	22,080	247,924	421,037	302,657	106,011	37,864	1,137,573
1971-72—							
Total . . . . .	25,789	270,243	465,792	303,239	112,262	39,750	1,217,075
less United States credits . . . . .	..	15,973	10,472	16,687	455	..	43,587
Payments from appropriations . . . . .	25,789	254,270	455,320	286,552	111,807	39,750	1,173,488
<b>Estimated expenditure—</b>							
1972-73—							
Total . . . . .	34,720	316,655	453,170	352,171	123,232	43,052	1,323,000
less United States credits . . . . .	..	11,267	4,255	55,263	350	..	71,135
Payments from appropriations . . . . .	34,720	305,388	448,915	296,908	122,882	43,052	1,251,865

(a) Includes defence aid for Malaysia, Singapore and South Vietnam.

## Logistic arrangement with the Government of the United States of America

The logistic arrangement referred to in previous issues of the Year Book continues to apply. No new credits are being arranged.

## Reserve and Citizen Forces

Citizen and Reserve Forces may be called out by proclamation for continuous full-time service in a "Time of Defence Emergency". The particular circumstances giving rise to the proclamation of a time of defence emergency could be varied, but would occur in a situation where the Regular Forces needed the full-time support of the Citizen and Reserve Forces in hostilities short of general war.

The three Services also have volunteer Emergency Reserves which may be called out for continuous full-time service when they are needed. These reserves provide a ready means of supplementing and reinforcing operational units.

## Australian forces serving overseas

As at 31 December 1972 the Australian element of the ANZUK Force in Malaysia and Singapore included:

*Navy*—One escort present in the area at all times, and one submarine present for part of the year; shore support units.

*Army*—One battalion of RAR: one field battery; a reconnaissance flight; a transport platoon; elements of headquarters, signals and logistics units integrated with United Kingdom and New Zealand elements. (The Government has announced that the battalion and battery will not be replaced when their tour of duty is completed about the end of 1973).

*Air Force*—Two squadrons of Mirage fighter aircraft and supporting elements.

## Defence Co-operation with South-East Asian countries

In support of Australia's policy, the Government is pursuing major programs of defence co-operation with Indonesia, Malaysia and Singapore.

Current defence aid to Malaysia and Singapore, to which amounts of \$16 million and \$4 million respectively have been pledged for the period 1971-74, represents a continuation of programs first commenced in 1964. To date over \$45 million has been spent on these programs. As well, other projects in defence co-operation have been undertaken, most notably the provision of 16 refurbished Sabre jet fighters to the Royal Malaysian Air Force. A wide range of equipment has been and is continuing to be supplied to the Malaysian and Singapore armed forces.

In 1972 a 3 year defence co-operation program with Indonesia was begun. An amount of \$20 million has been set aside for this program and in addition 16 ex-RAAF Sabre aircraft have been given to Indonesia.

Both under the above defence aid and co-operation programs and in the context of defence assistance to countries of the region generally, Australia accepts large numbers of overseas trainees in Service training establishments. During 1972 the total was over 600 spread over all three Services.

### Naval Defence

Prior to 1901, naval defence systems were organised under the State Governments. Information regarding these systems is given in Year Book No. 2, page 1084. An outline of the development of Australian naval policy is given in Year Books No. 3, page 1060, and No. 12, page 1012. An account appears in Year Book No. 15, pages 921-3, of the building of the Australian Navy, its costs, the compact with the Imperial Government, and other details. The growth and the activities of the Royal Australian Navy during the 1939-45 War are shown in Year Book No. 36, pages 1023-7.

Under the provisions of the Commonwealth of Australia Constitution Act the Minister of State for the Navy administers the Department of the Navy. Under the *Naval Defence Act 1910-1966* the Royal Australian Navy is administered by the Naval Board. The Naval Board consists of the Minister as President, five Naval Members, and the Secretary to the Department of the Navy.

Strong links with the Royal Navy are maintained by a constant exchange of officers for extended tours of duty and by a full exchange of information and ideas. A liaison staff is maintained by the Royal Australian Navy in London and by the Royal Navy in Australia. Advanced training and staff courses in the United Kingdom are provided by the Royal Navy for Royal Australian Navy officers. A liaison staff is also maintained by the Royal Australian Navy in Washington, and a comprehensive exchange of information is provided by this link. Staff courses in the United States of America are also attended by officers of the Royal Australian Navy.

#### Ships of the Royal Australian Navy

*The Fleet, December 1972: Melbourne*—aircraft carrier; *Sydney*—transport; *Supply*—oiler; *Stalwart*—destroyer tender; *Perth, Hobart* and *Brisbane*—guided missile destroyers; *Vendetta, Vampire Duchess, Anzac*—destroyers; *Yarra, Parramatta, Stuart, Derwent, Swan, Torrens*,—destroyer escorts; *Teal*—coastal minesweeper; *Curlaw, Snipe*—coastal minehunters; *Moresby, Paluma*—surveying ships; *Diamantina, Kimbla*—oceanographic research ships; *Oxley, Otway, Onslow, Ovens*—submarines; *Attack Aitape, Acute, Adroit, Advance, Archer, Ardent, Arrow, Assail, Aware, Barbette, Barricade, Bayonet, Bombard, Buccaneer, Ladava, Lae, Madang, Samarai*—patrol boats; *Banks, Bass*—auxiliaries;

*In operational reserve, December 1972: Hawk, Gull, Ibis*—minesweepers; *Bandolier*—patrol boat; *Castlemaine*—ocean minesweeper; *Sprightly*—fleet tug.

*On service overseas.* During the year ended December 1972 the following ships served in South-East Asian waters as units of the ANZUK force, with headquarters in Singapore: *Derwent, Vampire, Ovens, Onslow and Swan.*

The ships *Melbourne, Curlaw, Snipe, Supply, Stalwart, Teal, Moresby, Sydney, Hobart, Brisbane, Perth, Diamantina* also made overseas visits.

#### Fleet Air Arm

The Fleet Air Arm of the Royal Australian Navy maintains three front line squadrons for embarkation in the operational carrier H.M.A.S. *Melbourne*. These squadrons currently consist of Skyhawk A4-G fighter/ground attack aircraft, Tracker S2-E anti-submarine aircraft, and Wessex MK. 31B anti-submarine helicopters. Four training and support squadrons are based at the Naval Air Station, at Nowra, New South Wales. Other aircraft operated by the Navy are the Scout helicopter in *Moresby*, Iroquois helicopter (training and search and rescue), Dakota, Macchi trainer.

#### Ship construction and repairs

There are two naval dockyards, one at Garden Island, New South Wales, and one at Williamstown, Victoria. Also, the dockyard at Cockatoo Island, which is operated by the Vickers Cockatoo Dockyard Pty Ltd by agreement with the Commonwealth, carries out considerable naval work. All three dockyards carry out ship refitting for the Navy.

Construction of H.M.A.S. *Flinders*, a small hydrographic ship, is under way at Williamstown Dockyard. An extended refit of the Daring Class destroyers is under way at Williamstown Dockyard with H.M.A.S. *Vampire* recommissioning into the R.A.N. in late 1971. H.M.A.S. *Vendetta* and *Duchess* are currently in refit.

A contract for a further two Oberon class submarines was let during 1971 to Scott Lithgow Ltd. Approval has been given for the construction of a fast combat support ship and an oceanographic ship, both of which are to be built in Australia in the near future. A preliminary design for a new destroyer was completed in 1971. This will determine the major characteristics of the ship and will provide the basis for a detailed design.

#### **Personnel, training, entry, women's services, reserves**

*Personnel.* The estimated strength of the Royal Australian Navy in terms of personnel borne for full-time duty for 1972-73 is 17,461. At 30 December 1972 the actual strength of personnel borne for full-time duty was 2,220 officers and 14,900 sailors, which included 235 officers and sailors of the Citizen Naval Forces and 18 officers and sailors of the Royal Australian Navy Emergency Reserve.

*Training.* On entry, General List officers are trained at the Royal Australian Naval College, H.M.A.S. *Creswell* at Jervis Bay. The College was established to provide trained officers for the R.A.N. Junior entry to the College is at the age of fifteen to seventeen years and senior entry at a maximum age of twenty years. In November 1972 there were 137 cadet midshipmen under training. On completion of initial training, officers go to the Fleet for sea training, followed by advanced training either ashore in Australia, at universities or technical colleges, or at Royal Navy training establishments in the United Kingdom.

H.M.A.S. *Cerberus* at Westernport, Victoria, is the main training establishment for adult sailors in the permanent naval forces, while several advanced training schools are established in New South Wales. The period of initial engagement for sailors varies from six years for tradesmen to nine or twelve years, and on completion sailors may re-engage for shorter periods up to the age of fifty-five.

H.M.A.S. *Nirimba* at Quakers Hill, New South Wales, is the naval school for apprentices. It provides secondary education, as well as technical training in trades, to boys aged fifteen to seventeen and a half years. The school was established in 1956 to meet the R.A.N.'s increased demand for highly skilled tradesmen. In December 1972 there were 517 naval artificer apprentices under training.

H.M.A.S. *Leeuwin* at Fremantle, Western Australia, is the junior recruit training establishment. Entrants must be aged between fifteen and a half and sixteen and a half years. Training lasts one year and instruction is mainly academic, the remaining time being devoted to basic naval and disciplinary training. On completion of the course sailors are posted for a period of sea training, after which they proceed to technical and specialist courses. In December 1972 there were 710 junior recruits undergoing training.

On completion of initial training sailors join the Fleet for sea training before returning to the various training schools at H.M.A.S. *Cerberus*, H.M.A.S. *Penguin* and H.M.A.S. *Watson* at Sydney and R.A.N. Air Station at Nowra, New South Wales. Sailors who are selected for the Submarine service receive initial submarine training in the United Kingdom and a number of technical courses for certain sailors are conducted in the United States of America.

*Direct entry officers.* To meet increasing requirements for officers, direct entries are accepted into the Royal Australian Navy. Short service commissions of seven years are granted on completion of training as seamen, supply or aircrew officers to suitable applicants who have completed their secondary schooling and who are over seventeen years of age and under twenty-four years of age. Other direct entries may be approved outside these age limits from persons with appropriate qualifications and experience.

Opportunities exist for university undergraduates studying medicine, dentistry and engineering to enter the R.A.N., and on successful completion of their studies to commence short or full-time service in the Navy. Fully qualified doctors, dentists, engineers, instructors and legal officers may also enter the R.A.N. directly if they are of the appropriate age.

*Women's Services.* The present Women's Royal Australian Naval Service was inaugurated in January 1951. The numbers serving in shore establishments in December 1972 were 37 officers and 712 W.R.A.N.S. The Royal Australian Naval Nursing Service was reconstituted in November 1964, and its strength in December 1972 was 22 officers.

*Emergency Reserve.* In November 1964 approval was given to form the Royal Australian Naval Emergency Reserve to provide a readily available source of trained manpower which may be called on for continuous full-time service. The authorised establishment of this force is 2,000 officers and sailors. At 30 December 1972 the strength of the reserve available for mobilisation was 72 officers and 858 sailors, which excluded 2 officers and 6 sailors serving full-time. Members are required to complete thirteen days' training annually and are paid an annual bounty.

*Citizen Naval Forces.* The Citizen Naval Forces consist of the R.A.N. Emergency List, Royal Australian Fleet Reserve, Royal Australian Naval Reserve, Royal Australian Naval Reserve (Sea-going), Royal Australian Naval Volunteer Reserve, and Women's Royal Australian Naval Service Reserve. The authorised establishment of the combined forces is 10,000. At 30 December 1972 there were 1,249 officers and 3,976 sailors in the Citizen Naval Forces. These figures excluded 110 officers and 125 sailors serving full-time. The R.A.N.R. is the training reserve of the Citizen Naval Forces. Members carry out weekly training and thirteen days' continuous training annually; sailors engage for periods of three years. Other reserves do not normally carry out part-time training, but members may volunteer for periods of annual training and for periods of full-time service with the R.A.N.

## Military Defence

A detailed historical account of the Australian defence forces prior to federation appears in Year Book No. 2, pages 1075–81. *See also* Year Book No. 12, page 999.

### Commonwealth systems

Under the terms of the Commonwealth of Australia Constitution Act the Commonwealth took over control of defence matters in March 1901. The growth of the Commonwealth Military Forces may be considered to have taken place in a number of phases. For particulars of the phases which cover the period from the welding together of the military forces of the States into one homogenous Army in 1902 up to the re-establishment of the Military Board and the organisation of Commands after the 1939–45 War *see* Year Book No. 46 and earlier issues.

National Service Training was introduced in 1951 and suspended in 1959–60. It was re-introduced in June 1965 and suspended in December 1972.

### Organisation

Army Headquarters is responsible for the policy and control of the Australian Army. The Military Board consists of the Minister for the Army, President; the Chief of the General Staff; the Vice Chief of the General Staff; the Chief of Operations; the Chief of Personnel; the Chief of Logistics; the Chief of Matériel; the Citizen Military Forces Member; and the Secretary, Department of the Army. After the 1939–45 War, Command Headquarters were established to implement Army Headquarters policy and to command and administer those units placed under their authority. Command Headquarters are established in the capital cities of Australia. The geographic extent of Commands is as follows.

*Northern Command*—the State of Queensland.

*Eastern Command*—the State of New South Wales, less those parts included in Southern and Central Commands.

*Southern Command*—the State of Victoria and part of southern New South Wales.

*Central Command*—the State of South Australia, plus a portion of south-western New South Wales.

*Western Command*—the State of Western Australia.

*Tasmania Command*—the State of Tasmania.

*Northern Territory Command*—the Northern Territory.

In January 1972 the Prime Minister announced that the Army was to be re-organised on a functional basis to consist of a Field Force Command, a Logistic Command and a Training Command. This re-organisation is to take place over a period of three to five years.

The Army is divided into the Field Force, and the Australian Support Area, with both Regular and Citizen Military Forces elements in each. The basic formation of the Field Force is the division, which consists of nine infantry battalions with supporting arms and service units. Within the division three task force headquarters can command varying combinations of divisional units. The substantial part of the combat elements of one Regular and two C.M.F. divisions have been raised, together with logistic support units. The Australian Support Area provides the training, administrative, and command structures on the mainland.

At 31 December 1972, there was the major part of an infantry battalion group stationed in Singapore.

### Personnel, training, women's services, cadets

*Personnel.* The effective strength at 27 December 1972 was: Australian Regular Army, 39,771 (including 202 Citizen Military Forces on full-time duty, and 1,071 Women's Services); Citizen Military Forces, 24,928.

*Staff College.* Until 1938 the training of staff officers was carried out in the various Military Districts throughout Australia, except in cases where officers were selected from time to time to attend courses abroad. In 1938 an Australian Command and Staff School, located in the original Officers' Mess at Victoria Barracks, Sydney, was established. Between 1939 and 1945 the training of staff officers was carried out under varying conditions by different schools in accordance with the changing needs of the war.

Early in 1946 the Staff School (Australia) was established at Seymour, Victoria, and redesignated the Staff College in conformity with other Commonwealth training establishments for training officers for command and staff appointments. The College was later moved to Queenscliff, Victoria, where it is at present situated. The course is held annually and is of twelve months' duration. The normal intake is seventy students, and on successfully completing the course an officer is awarded the symbol 'psc'. The course is designed to train selected officers for appointments in all branches of the staff in peace and war and to prepare them to assume, after experience, command and higher staff appointments.

Included in the 1973 course will be students from Canada, India, Indonesia, Malaysia, New Zealand, Pakistan, Philippines, Thailand, United Kingdom and United States of America. Vacancies on each course are reserved also for officers who may be nominated by the Royal Australian Navy, the Royal Australian Air Force, and the Commonwealth Public Service.

In order to ensure common standards in tactical doctrine, and staff and command training throughout the Commonwealth of Nations, liaison is maintained with other Staff Colleges, and to this end there is also a reciprocal exchange of instructors between the United Kingdom, the United States of America, and Australia. An instructor is also provided by New Zealand.

*Royal Military College.* The Royal Military College was established in 1911 at Duntroon in the Australian Capital Territory for the purpose of providing trained officers for the Army. The conditions of entry are laid down in the Royal Military College Regulations. The course is four years of military and academic studies. The first three years are primarily academic and the fourth year military. Following affiliation with the University of New South Wales a Faculty of Military Studies was introduced in 1968. Cadets who meet the requirements for admission to the Faculty may take a course, leading to the award of a degree in Military Studies by the University of New South Wales in one of the following: Arts, Applied Science or Engineering. Cadets not admitted to the Faculty take a diploma course appropriate to their educational background. On graduation, cadets are appointed lieutenants in the Australian Regular Army. The College also trains New Zealand cadets for commissions in the New Zealand Permanent Forces. In 1967 one Thai cadet commenced training at the College; another Thai cadet commenced in 1970, a third in 1972 and a fourth in 1973.

*Officer Cadet School.* The Officer Cadet School was established in 1951 at Portsea, Victoria, for the purpose of speeding up the production of junior regimental officers for the Australian Army. Serving members of the Regular Army, the Citizen Military Forces and civilians between the ages of eighteen and a half and twenty-two and a half are eligible to apply for entrance. A special entry provides for candidates up to twenty-four and a half years. The course lasts for forty-four weeks, and on graduation cadets are appointed second-lieutenants in the Australian Regular Army. Graduates normally proceed to further training at the Army School of the Arm and Service to which they have been allotted before being posted to regimental duties. The Officer Cadet School also trains officers on occasions for Kenya, Malaysia, New Zealand, Thailand, the Philippines, Brunei, the Papua New Guinea Defence Force and South Vietnam.

*Officer Training Unit.* An Officer Training Unit has been established at Scheyville, New South Wales, which is responsible for the training of National Service Officers.

*Women's Royal Australian Army Corps School.* The W.R.A.A.C. School, established in 1952 at Mildura, Victoria, moved to Mosman, New South Wales, in 1958. It has three wings, one whose primary task is the training of officer cadets for the W.R.A.A.C., one for the training of non-commissioned officers at all levels and for other special courses, and one which is a basic training wing. The officer cadets are selected from eligible applicants, who may be serving members between nineteen and a half and thirty-two years of age, or civilians between nineteen and a half and thirty years of age. The course is of twenty-seven weeks' duration and on graduation cadets are appointed lieutenants in the Royal Australian Army Nursing Corps or the Women's Royal Australian Army Corps.

*Army Apprentices' School.* The Army Apprentices' School was opened in 1948 at Balcombe, Victoria, with the aim of training youths as skilled tradesmen for the Australian Regular Army and to form a background for an Army career with prospects of promotion for the graduates. The course is open to youths between the ages of fifteen and seventeen years and provides training in a number of highly skilled trades. Most apprentices attend two years of intensive theoretical and practical work at the Apprentices' School which is followed by two years on-the-job training in an appropriate Army workshop or technical unit under the supervision of an Apprentice Master. The exceptions to this are the Radio Tradesmen who train for three years at the Apprentices' School before one year on-the-job training. Before leaving the Apprentices' School all apprentices take the Victorian Apprenticeship Commission's final grade public examination, which ensures that they will be accepted as qualified tradesmen in civilian life when they eventually leave the Army. In addition to trade and military training, the Apprentices' School provides the facility for apprentices to attain an educational standard of Victorian Technical Leaving.

*Other Schools.* Army schools have been established for the major Arms and Services for the purpose of training officers and other ranks in the up-to-date techniques of their own Arm or Service, to qualify them for promotion requirements, and to produce trained instructors. Courses at Army schools are conducted for members of both the Regular Army and the Citizen Military Forces.

The following Army schools have been established: Jungle Training Centre, Armoured Centre, School of Artillery, School of Military Engineering, Transportation Centre, School of Military Survey, School of Signals, Infantry Centre, Army Aviation Centre, Army Intelligence Centre, Royal Australian Army Service Corps Centre, Royal Australian Army Medical Corps School of Army Health, Royal Australian Army Ordnance Corps Centre, Royal Australian Electrical and Mechanical Engineers' Training Centre, Royal Australian Army Provost School, School of Music, Air Support Unit (Army Component), and Air Movement Training and Development Unit (Army Component).

*Women's Services.* In July 1950 approval was given for the enlistment of women into the Australian Regular Army on a limited scale. Enlistment commenced into the Royal Australian Army Nursing Service in November 1950 and into the Australian Women's Army Corps early in 1951. In February 1951 the Royal Australian Army Nursing Service became a Corps and was designated the Royal Australian Army Nursing Corps (R.A.A.N.C.). During June 1951 the Australian Women's Army Corps was redesignated the Women's Royal Australian Army Corps (W.R.A.A.C.). The Women's Services in the Australian Regular Army now comprise two Corps only, the Royal Australian Army Nursing Corps and the Women's Royal Australian Army Corps.

Women's Services are incorporated in the Citizen Military Forces, and one company of the Women's Royal Australian Army Corps is located in each Command excluding Northern Territory Command. Companies of the Royal Australian Nursing Corps are also located in each Command excluding Northern Territory Command.

*Australian Cadet Corps.* The Australian Cadet Corps is a voluntary organisation. It serves as a training ground to provide, to some extent, the future officers and non-commissioned officers of the Australian Military Forces, and, as such, occupies a foremost position in the scheme of national defence. The Australian Cadet Corps, does not, however, form part of the Australian Military Forces. School Cadet units are raised at educational establishments throughout the Commonwealth except in the Northern Territory. The minimum age for enrolment is the year in which the applicant reaches the age of fourteen years, and cadets, who, in the large majority of schools receive a free issue of A.M.F. pattern uniform, may remain in the Cadet Corps until they cease to be pupils of the educational establishments concerned. A few units retain their own pattern school uniform and are not issued with A.M.F. pattern uniforms. Provision is made for the appointment of officers of cadets, cadet under-officers, warrant and non-commissioned officers on an authorised establishment scale from within school units. School Cadet units may be, and in many cases are, affiliated with Citizen Military Force units. The establishment of the Corps is 46,000 all ranks, and at 30 June 1972 comprised 332 School Cadet units with a posted strength of 38,621 all ranks.

## Air Defence

There are two elements in air defence: static air defence and counter air operations by strike aircraft.

Static air defence is provided by manned interceptor fighter aircraft, at times augmented by surface-to-air missile systems and gun defences, all operating under the direction of a control organisation. Such static systems are limited in their defensive coverage by the radius of action of the fighter aircraft and/or the effective operating range of the controlling radar.

Complementary to the static air defence system and capable of much wider ranging activities are the counter air strike forces. The aim of these forces is to destroy the enemy's offensive air capabilities at their source.

#### Higher organisation

The Air Board is responsible to the Minister for Air for the control, organisation, and administration of the Royal Australian Air Force and is constituted as follows: Chief of the Air Staff, Air Member for Personnel, Air Member for Supply and Equipment, Air Member for Technical Services, and the Secretary, Department of Air.

The Air Board administers and controls R.A.A.F. units in Australia and its Territories through two commands, Operational Command and Support Command. The guiding principles of the command organisation within Australia are to decentralise day-to-day operating activities as far as possible and to streamline the force and make it as efficient as possible. Operational units overseas, working within the broad directives issued by the Air Board, comprise the R.A.A.F. components of the ANZUK Force located at Butterworth in Malaysia and in the Republic of Singapore. The R.A.A.F. component of the Australian Forces in South Vietnam has been withdrawn.

The members of the Air Board and their staffs are located at the Department of Air in Canberra. An R.A.A.F. representative is located in London, and air attaches are located in Djakarta, Saigon, Paris, and Washington. *Operational Command* is responsible for the command of operational units and the conduct of their operations within Australia and its territories. *Support Command* is responsible for the recruitment and training of personnel, and the supply and maintenance of service equipment.

#### Development of the Royal Australian Air Force

For a short note about the development of the Royal Australian Air Force, see Year Book No. 58, page 93.

#### Organisation of units

*Bases.* Each command is established with the units necessary to carry out its allotted function. There is no fixed rule in relation to the number and types of units within each command, as this depends upon the nature of its present and future responsibilities. Where possible, units having similar functions or requiring similar facilities are located together, and the geographical locations are known as bases.

*Formations*—comprising a headquarters unit to control the activities of a number of units at one location; each formation has a base squadron which provides common services to all units at the location.

*Flying squadrons*—strike reconnaissance, air defence, ground attack, medium and short range transport, helicopter, and maritime reconnaissance squadrons which undertake the operational flying and in conjunction with operational conversion units, the operational flying training commitments of the R.A.A.F.

*Operational conversion units*—specialising in operational conversion training of aircrew for the air defence, and ground attack squadrons.

*Aircraft depots*—specialising in major overhaul, etc., of aircraft and equipment.

*Stores depots*—centrally located depots to which stores and equipment ordered by the R.A.A.F. are delivered for distribution to units.

*Airfield construction squadron*—specialising in airfield construction tasks in support of the R.A.A.F. operational component within Australia and the Territories.

*Telecommunications units*—responsible for the communications services of the R.A.A.F.

*R.A.A.F. Hospitals*—hospitals in Australia and at Butterworth providing medical services for the R.A.A.F.

*Flying and ground schools and units*—schools and units specialising in the aircrew and ground staff training required by the R.A.A.F.

*R.A.A.F. Diploma Cadet Squadron and R.A.A.F. Academy*—training units, to diploma and university degree level respectively for officer cadet entrants to the R.A.A.F.

*R.A.A.F. Staff College*—trains specially selected R.A.A.F. officers for higher staff and command posts.

### Aircraft

The R.A.A.F.'s strike reconnaissance force is currently equipped with Canberra and Phantom F4-E aircraft, and F-111C aircraft will be phased into service during 1973. The air defence and ground attack squadrons are equipped with the Mirage 111-O. Transport aircraft currently in use are Hercules C130A and E, Caribou, Dakota, Mystere 20, HS748, and BAC111. The two helicopter squadrons operate the Iroquois and the two maritime squadrons operate Neptune SP2H and Orion P3-B aircraft. Aircraft used for training are the Winjeel, Macchi, HS748, and Mirage 111-D.

### Personnel, reserve, woman's services

At 30 December, 1972, the authorised Permanent Air Force establishment was 24,794 and the Citizen Air Force 1,080; the enlisted strength was Permanent Air Force 22,593 and Citizen Air Force 731, while the strength of the General Reserve was 7,220. The Permanent Air Force figures include the Women's Royal Australian Air Force, which has an establishment of 1,011 and strength of 893 and the R.A.A.F. Nursing Service with an establishment of 119 and strength of 86.

## Department of Supply

For information relating to the creation of the Department of Supply and its development up to 1959 see Year book No. 51, page 1204, and earlier issues. On 18 December 1959 the Department assumed responsibility for the operation and management of space tracking stations in Australia on behalf of the United States of America's National Aeronautics and Space Administration (NASA). On 29 March 1962 Australia became a foundation member of the European Launcher Development Organisation, and the Department accepted responsibility for the test firing of the launching rocket for that Organisation's experimental satellite, using the facilities of the Woomera Rocket Range. The last of these ten test firings at Woomera was on 12 June 1970.

On 1 May 1968 the Department took over the Administration of the Antarctic Division from the Department of External Affairs. In December 1972, this responsibility was transferred to the Department of Science.

### Functions of Department

The functions of the Department of Supply include the following.

Defence research and development, including the operation of the Joint United Kingdom-Australia Weapons Research Project, and Australian research and development.

Planning, establishment, operation and management of facilities producing aircraft, guided missiles, small arms, ammunition, explosives, marine engines, clothing, telecommunications equipment, and other defence goods.

Printing for the Defence group of departments.

Arrangement of contracts for purchasing in Australia of supplies and services required by the Armed Forces and certain other Government organisations.

Acquisition, maintenance, and disposal of strategic materials.

Investigation and development of Australian sources of supply in connection with defence.

Disposal of surplus or obsolescent Commonwealth goods on behalf of all departments.

Provision of Commonwealth transport facilities outside the Australian Capital Territory and the Northern Territory.

Provision and control of stores required for or in connection with matters administered by the Department of Supply, and general storage for other departments as required.

Arrangements for ascertaining costs and the control and limitation of profits in connection with the production of munitions and other defence goods.

Operation and management of space tracking stations and certain other facilities on behalf of the Government of the United States of America.

The Minister for Supply administers the *Supply and Development Act 1939-1966*, except in so far as it concerns the building (see also Chapter 12, Transport and Communication), repair, and maintenance of merchant ships and the building, extension, alteration, repair, and maintenance of shipyards, drydocking, and repair facilities for merchant ships.

For the performance of the above functions the Department is organised into five Divisions, namely:

Research and Development; Munitions Supply; Aircraft, Guided Weapons and Electronics Supply; Planning and Procurement; and Finance and Management Services.

### Research and Development

The Research and Development Division is responsible for scientific research and development in relation to war matériel; the operation of the Joint United Kingdom-Australian Weapons Research Project; and support of space research programs for the United States of America's National Aeronautics and Space Administration (NASA). The headquarters is situated in Canberra, and the following establishments are included in the Division: (a) Weapons Research Establishment, Salisbury, South Australia; (b) Defence Standards Laboratories, Maribyrnong, Victoria; Woodville North, South Australia; Alexandria, New South Wales; Joint Tropical Research Unit (J.T.R.U.) at Innisfail, North Queensland in conjunction with the United Kingdom Ministry of Defence; (c) Aeronautical Research Laboratories, Fishermen's Bend, Victoria; and (d) Central Studies Establishment, Canberra, Australian Capital Territory.

*Weapons Research Establishment.* The Establishment has three scientific Wings, namely Trials Wing, Applied Physics Wing and Weapons Research and Development Wing. The Trials Wing is concerned with the operation, development and instrumentation of the Woomera Range, and the planning, execution, and assessment of trials to meet the requirements of projects approved under the United Kingdom-Australia Joint Project arrangements. The Applied Physics Wing conducts scientific research of significance to the Defence requirements of Australia in the broad fields of systems analysis, electronics, optics, radio propagation, radar, lasers, infra-red, visual surveillance, whilst the Weapons Research and Development Wing is engaged similarly in aeroballistics, weapon systems, rocket propulsion and marine physics for the Defence group of departments.

In addition, an Engineering Wing provides engineering design, development and maintenance facilities, and certain technical services for the scientific Wings (including the Joint Project Trials Wing). Engineering support is also provided for other Research and Development Division Laboratories. The Engineering Wing also undertakes tasks for other Supply organisations and the Australian Defence Services.

*Defence Standards Laboratories.* This Establishment (at Maribyrnong, Victoria) provides a scientific service to the Defence Services, Department of Supply factories and other authorities engaged in support to Defence, generally within the fields of chemistry, physics, metallurgy, engineering, explosives and ammunition, and to a limited extent, in the fields of biochemistry and physiology. It also undertakes scientific research appropriate to its responsibilities and of significance to the defence requirements of Australia. It is the principal Standards Laboratories of the Defence group of Departments and provides calibration facilities for the higher grades of standards. The Australian National Standards Commission has appointed D.S.L. as a verifying authority under the Weights and Measures (National Standards) Act.

Branches are located at Woodville North, South Australia and Alexandria, New South Wales.

The Joint Tropical Research Unit (J.T.R.U.) at Innisfail provides facilities for studying the behaviour and degradation of a wide range of materials and stores in hot/wet and hot/dry tropical environments.

*Aeronautical Research Laboratories.* The work of this establishment is broadly related to the aeronautical aspects of materials science, mechanical engineering, aircraft structures, aerodynamics and system studies. It undertakes research and development on specific defence projects, provides advice and conducts investigations for the Services, Government departments and industries engaged in defence work. Scientific research related to these responsibilities and of significance to the defence requirements of Australia is also undertaken.

*Central Studies Establishment.* This establishment assists the Defence group of departments in the application of Operational Research and Systems Analysis techniques to the study of military problems.

*United States of America's projects.* Agreements have been signed by the Governments of Australia and the United States of America to co-operate in the establishment and operation in Australia of space vehicle tracking stations. The agencies for the Australian and the American Governments are the Department of Supply and the National Aeronautics and Space Administration (NASA) respectively.

As part of the world-wide network supporting NASA's space programme the stations are designed to track spacecraft in their orbits around the earth or on their journey into space, to receive telemetered data from the spacecraft and to issue radio commands controlling the spacecraft's manoeuvres. The Department of Supply is responsible for managing, staffing and operating the stations on behalf of NASA. The stations which are now in operation are at:

Carnarvon in Western Australia (manned space flights and scientific satellites);

Orroral Valley in the A.C.T. (scientific satellites);

Honeysuckle Creek in the A.C.T. (manned space flights).

Tidbinbilla in the A.C.T. (deep space probes and manned space flights). Construction of a 64 metre tracking antenna, to augment the existing 26 metre antenna, was completed in 1972.

An extensive communications system links the tracking stations with the control centres in the United States of America. At all stations the responsibility is vested in a station director who is a senior officer of the Department of Supply.

Under the Australian Government's policy of using the resources of private industry wherever possible, contracts for operation and maintenance services at the stations have been let as follows: Amalgamated Wireless (A'asia) Ltd, (Carnarvon, Orroral Valley and Tidbinbilla), and Standard Telephones and Cables Pty Ltd (Honeysuckle Creek). NASA expenditure on operations in Australia for the period July 1971 to June 1972 was \$12.0 million.

The Department also manages and operates the Project Hibal Balloon Launching Station, based at Mildura, Victoria. The agencies for this project are the Department of Supply and U.S.A. Atomic Energy Commission. The primary purpose of the station is to monitor the level of radioactivity in the upper atmosphere using high altitude balloons. Research experiments are also flown on behalf of United States and Australian Universities and research institutions.

### Munitions Supply

The Department of Supply is responsible for the production of munitions required by the Armed Services. Production is carried out in Government factories, and a wide range of orders is also placed with private industry.

The factories currently in operation and their main products or services are as follows:

Ammunition Factory, Footscray, Victoria (fuses, primers, cartridge cases and small arms ammunition); Clothing Factory, Victoria (uniforms and clothing); Defence Printing Establishment, Victoria (special defence printing requirements); Engine Works, Victoria (building and servicing of marine diesel engines); Explosives Factory, Albion, Victoria (high explosives, propellants, chemicals); Explosives Factory, Maribyrnong, Victoria (propellants, explosives, chemicals, ammunition, rocket motors); Explosives Factory, Mulwala, New South Wales (propellants, chemicals); Munitions Filling Factory, St Marys, New South Wales (ammunition filling and assembly other than small arms ammunition); Ordnance Factory, Bendigo, Victoria (heavy guns, mountings, large turbine gears); Ordnance Factory, Maribyrnong, Victoria (guns, projectiles, fire control equipment, rocket motor components); and Small Arms Factory, Lithgow, New South Wales (rifles, machine guns, mortar shells, small calibre shells and fuse components.)

### Aircraft, guided weapons and electronics supply

*Aircraft.* Production both in Government factories and in industry of military types of aircraft and aero-engines and of other aircraft components required by the Services is administered by the Department of Supply through this Division. Planning of capacity and the negotiation of contractual arrangements concerning aircraft modification, repair and overhaul, and for the supply of spare parts and airborne equipment for the Services, are also functions of the Division.

The following factories are operated by the Division: The Government Aircraft Factory at Fishermen's Bend and the Final Assembly Workshops and Test Airfield at Avalon, Victoria, and the Machine Shop at Northfield, South Australia.

The Government Aircraft Factories have designed and developed a twin turbo-propellor utility aircraft known as Nomad. (see Plate 16 overleaf) The first prototype flew in July 1971 and in May 1972 the first production phase of the aircraft was authorised. The first production run will include aircraft for the Australian Army and for sale to other users.

GAF also designed and is producing the Jindivik radio-controlled target aircraft which has been or is being supplied to Britain, Sweden and America as well as to the Weapons Research Establishment and the R.A.N.

Apart from the Government Aircraft Factory, the Commonwealth Aircraft Corporation Pty Ltd is the only major aircraft manufacturer in Victoria. The Corporation was the prime contractor for the Australian production for the R.A.A.F. and R.A.N. of the Italian Macchi jet trainer and for the production of the British Viper engine that powers this aircraft. Hawker de Havilland Australia Pty Ltd at Bankstown and Lidcombe, New South Wales was the major sub-contractor for the Macchi. Macchi trainer production for R.A.A.F. and R.A.N. was completed in 1972.

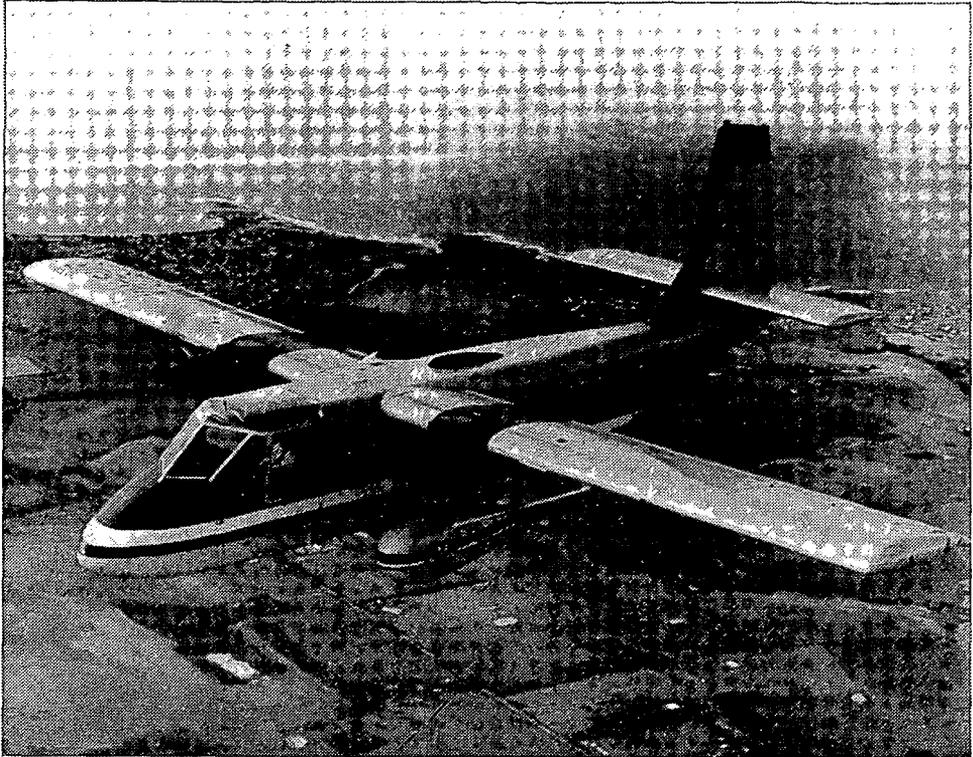


PLATE 16

*Guided weapons:* The production of the Ikara anti-submarine missile is continuing at the Government Aircraft Factory at Fishermen's Bend. Production of the complete Ikara system, covering broadly the missile, motor, propellants, guidance equipment, launcher, and magazine handling equipment, is a combined effort by departmental establishments and industry, directed and co-ordinated by the Department.

Ikara has been fitted to 9 R.A.N. ships and variants have also been purchased by the British and Brazilian Navies. Other overseas sales are being actively pursued. Turana, a development from the Ikara concept which can use the same shipboard launchers, is a small jet engine-powered, pilotless target aircraft being produced by the Government Aircraft Factory for the R.A.N.

At St. Marys, New South Wales, a Guided Weapons and Electronics Support Facility has been established to repair and maintain guided missiles for the Armed Services. The facility also provides support to the Services in calibration, aerial testing and modelling, and the provision of sonar and environmental test facilities.

*Naval Systems:* A special group has been formed to handle the co-ordination within the Department of the procurement and industrial development aspects of major RAN equipment purchases. The R.A.N.'s new destroyer project, submarine and ship sonar systems, are current activities of this group.

*Electronics:* The Department is responsible for the technical aspects of supply of telecommunications and electronics equipment for the Defence Group. Production is also arranged for other Commonwealth authorities and foreign aid programs. There has been recently a growing involvement in the negotiation of Australian industry participation in Defence purchases abroad.

Some of the more important projects handled by the Department include multi-channel UHF radio relay equipment and a range of military radio pack-sets for the Army, a computer-based message switching system for the Navy and major fixed telecommunications installations for the Air Force.

A continuing program of technology development in electronics is separately sustained from a production development appropriation within the Department of Supply vote.

Contracts have been awarded to industry for the development of a new Australian advanced submarine detection system known as Project Barra. This system is for use by long range maritime patrol and carrier based aircraft and evolved from work at the Department's Weapons Research Establishment.

### Planning and Procurement

*Contract board:* The Board, constituted under the *Supply and Development Regulations 1939-1966*, arranges for the procurement of supplies and services for the Naval, Military and Air Forces of the Commonwealth and for the Department of Supply. Upon request, the Board also arranges contracts on behalf of other Commonwealth departments and authorities. It also arranges disposal—by means of public tender, auction or otherwise—of all surplus or unserviceable Commonwealth-owned goods. The Board comprises representatives of three Service Departments and of the Department of Supply. In each State there is a District Contract Board similarly constituted, which is authorised to exercise the functions of the Contract Board within certain financial limits.

Purchases by the Contract Board and District Contract Boards in all States in 1971-72 totalled \$286.7 million. (This includes a 5 year period contract for aviation fuels, with an estimated value of \$92.4 million). Total realisation from disposals in 1971-72 was \$13.5 million.

*Planning.* The central planning authority of the Department is the Production Planning Branch, whose principal functions are:

- to study manufacturing capacity available for the Services' requirements in peace and war and to plan for and assist in the development of additional production capacity and to plan the organisation of industrial resources for defence production in war;
- to provide and administer reserve stocks of materials and reserve pools of plant, equipment and other requirements needed for rapid expansion in the event of war;
- to receive and allocate to the appropriate departmental divisions all orders and procurement demands placed on the Department; to monitor all aspects of progress in satisfying them and to keep client departments informed of progress;
- to provide advisory services in the field of materials supply and utilisation to Government factories and contractors engaged in the production of munitions requirements;
- to administer the national stockpile of strategic materials.
- to arrange and administer the Department's interface with industry on matters of general policy.

Emphasis is given to a maximum participation by Australian Industry in meeting the requirements of the Defence Services, whenever it is economically and technically possible to do so. Where it is necessary to order a requirement from overseas, the aim is still to involve local industry through co-production or in work of an offset nature.

The Department's efforts are directed towards:

- achieving closer collaboration with industry and bringing to its early attention, the forecast requirements of the Services;
- exercising and upgrading the technological capability of industry by awarding contracts to assist in complex production and development tasks for defence purposes;
- seeking co-production and offset opportunities with overseas industry in defence contracts; and encouraging and facilitating participation in sub-contract work from overseas industry.

*Stores and transport.* The Stores and Transport Branch functions as the central storage and transport authority for most Commonwealth departments. It is the authority for the arrangement of furniture removals at departmental expense in all States, but not in the Northern Territory. It has agents in Darwin. It also operates a shipping and customs section and the England-Australia bulk air freight scheme for Commonwealth departments.

On 28 June 1972 the Branch had under its control land, building and works, vehicles, plant and equipment, valued at \$26,967,000; 4,959 motor vehicles and 3,081,000 square feet of storage space as well as storage facilities for large quantities of chemicals, bulk liquids and explosives.

*Overseas sales and aid.* The Sales and Aid Branch promotes sales of Departmental products and administers the Department's patents and licensing agreements. It is responsible also for administering arrangements for the supply of military type stores under Defence Aid programmes.

The Branch is also responsible for the development, co-ordination and monitoring of Australian industry participation arrangements for Australian defence purchases from overseas, and the development of closer co-operation between Australia and New Zealand in the defence supply field.

**Finance and Management Services**

*Finance.* The total expenditure on Department of Supply activities in 1971-72 was \$216,309,000. This was made up of \$114,819,000 from Parliamentary Appropriations, \$455,000 from Loan Fund and \$101,035,000 from Trust Fund Accounts which included \$24,921,000 for Stores and Transport, \$57,190,000 for Government Munitions and Aircraft Factories, \$17,892,000 for projects for other governments and \$1,032,000 for cafeterias.

*Management Services.* The Technical Services Branch of the Department provides an operating, advisory and consultative service to the Department for industrial engineering, office methods, management operations research, archives and registry practice, instrumentation, electrical and communications engineering services, materials handling, defence standardisation, stores cataloguing, library services and safety.

The Automatic Data Processing Branch provides services to the Department by: assisting in the specification of data-processing systems; designing and implementing computer based systems; co-ordinating computer equipment requirements; and providing ADP training programs.

*Personnel.* At 31 December 1972 the Department employed 20,653 personnel as follows: administration 2,468; cadets and trainees 341; laboratories 6,106; aircraft production 2,108; munitions production 6,083; miscellaneous production 1,010; Stores and Transport Branch 2,509; and overseas staff 28.