

## CHAPTER XXVI.

## DEFENCE.

## § 1. Department of Defence.

1. **Introduction.**—At the outbreak of the 1939–45 War, the Department of Defence comprised the three Fighting Services. In November, 1939 separate Departments, each with its own Minister, were created for the control and administration of the Navy, Army and Air Force. The Defence Department as then reconstituted retained responsibility for over-all defence policy and for the conduct during the war of the business of the War Cabinet and the Advisory War Council.

2. **Post-war Functions and Organization.**—(i) *The Cabinet and the Council of Defence.* The determination of defence policy is the responsibility of Cabinet. It is assisted in this by the Council of Defence, which is a statutory body created under Section 28 of the Defence Act, its functions being to consider and advise upon any questions of defence policy or organization which are referred to it by the Prime Minister or the Minister for Defence. The Council consists of the Prime Minister and those Ministers most concerned in defence, the three Chiefs of Staff and the Secretary, Department of Defence.

(ii) *Functions of Department of Defence.* Subject to the authority of Cabinet and the Council of Defence, the Minister and Department of Defence are responsible for :—

- (1) The formulation and general application of a unified defence policy relating to the Defence Forces and their requirements, including :—(a) co-operation in British Commonwealth defence and the defence aspect of the Charter of the United Nations ; (b) the supply aspect of defence policy, including the review of production programmes and capacity ; (c) the scientific aspect of defence policy ; and (d) the financial requirements of defence policy, and the allocation of funds made available.
- (2) The defence aspect of Armistice and Peace Terms, Control Commissions, and Forces of Occupation.
- (3) Matters of policy or principle and important questions having a joint service or inter-departmental defence aspect.
- (4) The higher defence machinery, the control of the joint service machinery, and the Secretariat of the Council of Defence.
- (5) The defence aspect of questions relating to the organization and machinery for :—(a) co-operation in British Commonwealth defence ; (b) co-operation in regional security, including obligations under the United Nations Charter ; (c) higher direction in war ; and (d) higher direction of the Services.
- (6) The Commonwealth War Book, which is a summary of national plans for an emergency as developed in Departmental War Books.
- (7) The administration of inter-service organizations, such as the joint intelligence machinery.
- (8) The defence aspect of :—the strength and organization of the Forces, higher appointments in the Services, Honours and Awards, and civil defence policy.

(iii) *Joint Service and Inter-Departmental Machinery.* The joint service and inter-departmental advisory machinery of the Department consists of various committees headed by the Defence Committee and the Chiefs of Staff Committee. The Defence Committee is a statutory body consisting of the Secretary, Department of Defence, and the Chiefs of Staff of the three Services. In general, its function is to advise on defence policy as a whole, and on matters of policy or principle and important questions having

a joint service or inter-departmental defence aspect. The main responsibility of the Chiefs of Staff Committee is the preparation of strategic appreciations and military plans. The major committees subordinate to the Defence Committee and/or the Chiefs of Staff Committee comprise the principal Administrative Officers Committee (Maintenance and Materials), the Principal Administrative Officers Committee (Personnel), the New Weapons and Equipment Development Committee, the Joint Planning Committee, the Joint Intelligence Committee and the Joint Administrative Planning Committee.

The Defence Scientific Advisory Committee is responsible for furnishing advice on the scientific aspect of defence policy.

**3. Post-war Defence Policy.**—(i) *Basis of Australia's Post-war Defence Policy.* The basis of Australia's post-war defence policy is stated in the following terms in the Government's announcement of 4th June, 1947:—

“The Forces to be placed at the disposal of the United Nations for the maintenance of international peace and security, including regional arrangements in the Pacific;

The Forces to be maintained under arrangements for co-operation in British Commonwealth Defence; and

The Forces to be maintained to provide for the inherent right of individual self-defence”.

(ii) *Post-war Defence Programme.* The approved post-war defence programme, extending over a period of five years from 1947-48 to 1951-52, will cost £250,000,000 or an annual average vote of £50,000,000. The post-war defence programme is designed to secure a balanced scheme of defence providing for the Navy, Army and Air Force, Defence Research and Development, and Munitions and Supply, in proper proportions within the limits of the available resources that can be devoted to defence. The roles of the three Services are blended and inter-related and their strength and organization have been determined on the basis of the fulfilment of the objectives of policy stated above.

(iii) *Defence Research and Development.* The whole question of post-war policy is affected by the impact of scientific development on the types of weapons and armament for the various Services, and the results of these developments will be under constant notice. High priority is therefore given in the programme to defence research and development, for which an amount of £33,500,000 is being provided under the five year programme. The main individual item is the Long Range Weapons Project which is a joint United Kingdom-Australian undertaking. It is the first important step in the widening of Australia's responsibility in defence research and development in accordance with the policy of the strategic development and distribution of the resources of the British Commonwealth. The Department of Defence is responsible for questions of policy in this field, and the Department of Supply and Development is the responsible authority for executive action in respect of approved policy decisions.

(iv) *National Planning for an Emergency.* To achieve a balanced defence policy, it is necessary to ensure proper co-ordination of the Navy, Army and Air Forces, the supply organization and the civil economy which supports the direct military effort. The Government's policy provides for the co-ordination of these as integral parts of the national defence policy. The basis of planning for these matters and also for the civil defence measures necessary to protect the community against attack by modern weapons is the Commonwealth War Book and Departmental War Books. These are now being revised in the light of wartime policy and likely contingencies.

(v) *Flexibility of Post-war Policy.* It is important that the future developments in weapons and methods of war should be borne in mind when considering national defence, the shape and size of post-war forces, and the new problems of organization and training which they will create.

Australian policy, like that of the United Kingdom, will be kept flexible. At the same time, while the completion of the objectives laid down will be vigorously pursued according to the planned schedule of the programme, a continuous review will be maintained in regard to progress and the need for any variations that may arise.

4. **Co-operation in British Commonwealth Defence.**—The defence programme gives practical and substantial effect to the acceptance by Australia of a larger contribution towards the defence of the British Commonwealth in the Pacific, and the relief in corresponding degree of the burden for so long carried by the United Kingdom. The need for improved machinery for co-operation in British Commonwealth defence has been recognized and advocated by the Australian Government for some time, and proposals by it to achieve this objective, with particular application to the Pacific Area, have now been agreed to by the Governments of the United Kingdom and New Zealand.

5. **Australian Participation in the Occupation of Japan.**—By agreement between the Australian Government (acting on behalf of the Governments of the United Kingdom, Australia, New Zealand and India) and the United States Government, arrangements were confirmed in January, 1946 for a British Commonwealth Force under an Australian Commander to participate in the occupation of Japan. For the control and administration of this British Commonwealth Occupation Force (BCOF), the Australian Defence Committee was augmented by the inclusion of representatives of the other Governments concerned, and the Chiefs of Staff Committee was extended similarly to form the Joint Chiefs of Staff in Australia (JCOSA).

In February, 1946 the bulk of the contingents from the participating countries assembled in Japan under the command of Lieutenant-General J. Northcott, Australian Military Forces. The force consisted of a small Royal Naval Port Party, an army component consisting of brigades from each of the United Kingdom, India, New Zealand and Australia, and an air component of a Royal Australian Air Force Wing of three squadrons of Mustangs, two Royal Air Force Spitfire Squadrons, one Royal Indian Air Force Spitfire Squadron and a Royal New Zealand Air Force Squadron of Corsairs. A large proportion of the personnel required for the controlling head-quarters' staffs and base organization was provided from Australia. Arrangements were also made for Australia to act as the main source of supply of BCOF. Of a total BCOF strength of some 36,000 in February, 1946, 9,155 were Australian Military Force personnel and 2,185 were Royal Australian Air Force personnel. Apart from this contribution to BCOF, the Royal Australian Navy provided a naval support unit of two ships for service with the British Pacific Fleet in Japanese waters.

BCOF is charged with representing worthily the British Commonwealth in the occupation of Japan, maintaining its prestige in the eyes of the Japanese, and illustrating to them the British Commonwealth democratic way and purpose in life. In addition, extensive patrolling and garrison duties have been undertaken as well as the destruction of thousands of tons of Japanese warlike material and the repatriation of a large number of Japanese servicemen.

During 1946 there was little change in the over-all strength of the Force, although it assumed responsibility, under the Supreme Commander Allied Powers, for the Prefectures of Shimane, Yamaguchi, Tottori, Okayama, and the island of Shikoku, in addition to the original BCOF area of the Hiroshima Prefecture. In June, 1946 command of BCOF passed to Lieutenant-General H. C. H. Robertson, Australian Military Forces. Early in 1947, due largely to man-power difficulties and to settled conditions in Japan, the total strength of the Force began to decline. Substantial reductions were effected in the United Kingdom and New Zealand Contingents and later in the year the Indian Contingent was completely withdrawn. At the close of 1947 the total strength of BCOF was less than 16,000, the Australian Military Forces and Royal Australian Air Force strengths being respectively 8,573 and 2,048 all ranks. With agreement of the participating Governments the JCOSA organization was discontinued on 31st December, 1947, and responsibility for the control and administration of BCOF was then assigned to the Australian Government.

The demilitarization of the BCOF area has been completed without incident, and BCOF has played an important part in the success achieved by the military occupation and administration of Japan.

## § 2. Military Defence.

1. **State Systems.**—A detailed historical account of the Australian defence forces prior to Federation will be found in Official Year Book No. 2, pp. 1075–1080. See also Official Year Book No. 12, p. 999.

The strength of the military forces of the States on 31st December, 1900 (the eve of Federation) was:—New South Wales, 9,338; Victoria, 6,335; Queensland, 4,028; South Australia, 2,932; Western Australia, 2,696; Tasmania, 2,024; total for Australia, 27,353. This total was exclusive of cadets, reservists and rifle club members.

2. **Commonwealth Systems.**—(i) *General.* Under the terms of the Constitution Act 1900, 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 fifteen phases. For particulars of the phases which cover the period from the welding together of the military forces of the States into one homogeneous army in 1902 up to the decision to increase the training strength of the militia to 70,000 in the year before the 1939–45 War (phases 1–7), see Official Year Book No. 36 and earlier issues.

The eighth phase was initiated by the Government on 2nd September, 1939, when the Governor-General issued a proclamation of the existence of war or of a danger thereof and for the calling out of the Citizen Forces for war service. The ninth phase was initiated on 13th October, 1939, when the organization of the Australian Military Forces into Commands came into operation. The objects of the Command Organization are as follows:—(a) to bring peace organization into line with war organization; (b) to provide for the personal and whole-time guidance and supervision, by a higher commander, of divisional and other formation commanders, on questions of training and general preparedness for war; and (c) to reduce the number of lower formations under the direct control of Army Head-quarters.

The tenth phase was initiated on 30th November, 1939, when a proclamation was issued under the Defence Act calling upon certain personnel to enlist and serve in the Defence Forces.

The eleventh phase: Owing to a considerable expansion in the administrative functions which the three main commands were called upon to perform, it was decided to relieve the G.O.s.C. of these commands and their staffs of much of their administrative responsibilities in order that they might concentrate on operational matters. In January, 1942, therefore, Northern, Eastern and Southern Commands were divided into separate command and base head-quarters—the command head-quarters to handle operational, and base head-quarters administrative, matters.

The twelfth phase: As a result of the expansion in supply and other administrative installations in Australia, it was found necessary to revise the machinery for command administration of lines of communication areas and to decentralize control. A division into lines of communication areas was therefore made, and these areas corresponded with Northern, Eastern, Southern and Western Commands and 7th and 8th Military Districts. Command and general administrative control of the lines of communication areas were placed under the respective base head-quarters and 7th and 8th Military Districts and came directly under Army Head-quarters.

The thirteenth phase: In August, 1941 War Cabinet approved of Lieutenant-General Sir Iven Mackay as G.O.C.-in-C. Home Forces commanding the forces in Northern, Eastern and Southern Commands. The G.O.C.-in-C. was made superior to the G.O.s.C. Commands for the direction of operations, but subordinate to the Military Board, which remained the body advising the Minister for the Army, and through him, War Cabinet.

The fourteenth phase: Shortly after the outbreak of war with Japan, a number of units of the United States Forces were routed to Australia. Subsequently additional forces arrived. By agreement among the Governments of the United States, the United Kingdom, the Netherlands and Australia in April, 1942, General Douglas MacArthur was appointed Commander-in-Chief, South-west Pacific Area. General Sir Thomas Blamey was assigned to the command of the Allied Land Forces in the South-west Pacific Area by General Head-quarters, South-west Pacific Area. With the appointment of General Sir Thomas Blamey as Commander-in-Chief Australian Military Forces, the Military Board ceased to function and Army Head-quarters became Allied Land Forces

Head-quarters, Australia. As from 9th April, 1942, the system of commands and bases was abolished and replaced by the field army and lines of communication areas which were established in each of the six States on the mainland plus Northern Territory and New Guinea. Field formations were formed as follows :—

First Australian Army—from Northern and Eastern Commands.

Second Australian Army—from Southern Command.

Third Australian Corps—from Western Command.

Northern Territory Force—from 7th Military District.

New Guinea Force—from 8th Military District.

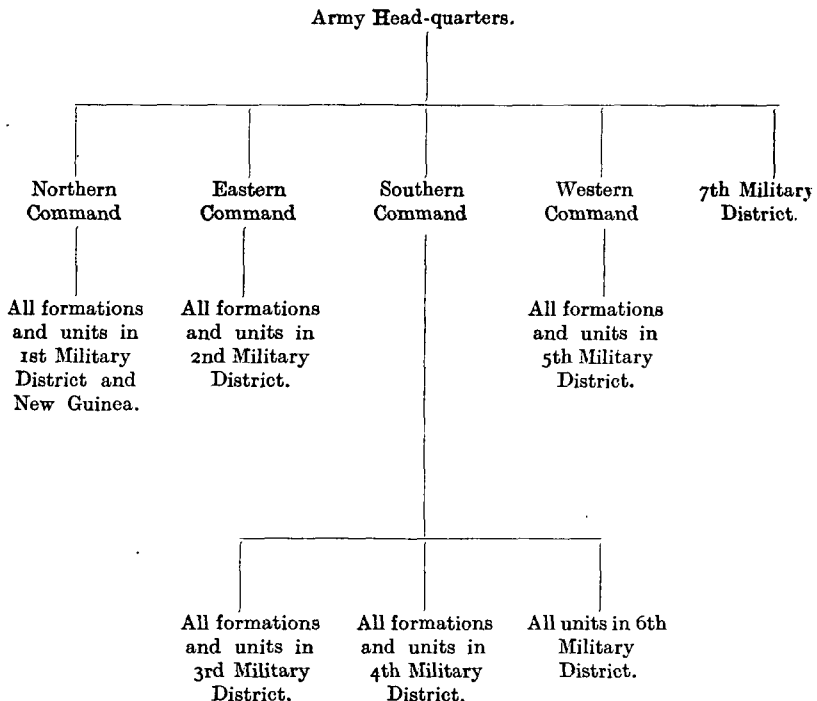
In March, 1943 First and Second Armies took over from Queensland, New South Wales and Victoria lines of communication areas the command of all coast and static anti-aircraft artillery defences and training establishments. On 16th June, 1944 Western Command was re-established and took over the combined responsibilities of Third Australian Corps and Western Australia Line of Communication Area.

The fifteenth phase : In March, 1946 the Military Board and the organization of commands and military districts was re-introduced.

(ii) *Population of Military Age, Census, 1947.* The following particulars show the numbers of males of military age in the population of Australia as at the Census of 30th June, 1947. The total number of cadet age, 12 and over, and under 18, was 333,373 ; at citizen soldier age, 18 and over, and under 26, 495,867 ; and 26 and over, and under 35, 532,210 ; making a total of 1,028,077, 18 and over, and under 35, which is considered the best period for military service. In addition to the above-mentioned, there were 1,186,141 males 35 and over, and under 60, in Australia at the 1947 Census.

(iii) *Allotment of Units.* Under the Command Organization (see above) units are raised on a territorial basis, each State supplying its proportion of the personnel required for the fighting services.

#### COMMAND ORGANIZATION.



Military Districts conform generally to State or Territory areas, as follows:—1st Military District, Queensland; 2nd, New South Wales; 3rd, Victoria; 4th, South Australia; 5th, Western Australia; 6th, Tasmania; 7th, Northern Territory. Third Military District includes a considerable portion of Southern New South Wales, and 4th includes Broken Hill.

(iv) *Strength of Military Forces.* There was little alteration in the numbers serving in the Australian military forces from the institution of the Commonwealth to the year of the introduction of the compulsory training system. From 1913 to 1918, however, the annual increase was considerable. As a result of the International Conference which met at Washington on 11th November, 1921, it was decided to continue the universal training law, but its operation was restricted to the more populous centres and to certain quotas only. From 1st July, 1922 to 30th June, 1925, training in the Senior Cadets was limited to two quotas instead of four, and in the Citizen Forces to two quotas instead of seven. On 1st July, 1925 Senior Cadet training was reduced to one quota only, while Citizen Force training was increased to three quotas. These conditions remained in force until 1st November, 1929, when the constitution of the forces on a voluntary basis was adopted. During the period last mentioned Senior Cadet training commenced on 1st July of the year in which Senior Cadets reached the age of 17 years, and on 1st July of the following year they were allotted to the Citizen Forces, in which training continued until 30th June of the year in which they attained the age of 21 years. Notwithstanding the reduction in training, all males residing within 5 miles of a training centre were required to register during the months of January or February of the year in which they reached the age of 14 years. Junior Cadet training of boys of the ages of 12 and 13 years, which was in abeyance during the years 1922-23 and 1923-24, was also supervised by the Defence Department during the period 1st July, 1925 to 31st October, 1929.

Under the voluntary enlistment system, personnel might enlist for a first period of three years, and on its completion the member concerned might be re-engaged for successive periods of two or three years until he reached the age for retirement.

The Commonwealth Government has approved a programme extending over a period of five years from 1947 to 1952. This programme provides for the raising of an Australian Regular Army of a total strength of 19,000 all ranks, and a Citizen Force of a total strength of 50,000 all ranks. Both the Regular and Citizen Forces are recruited by voluntary enlistment. The strength of the Australian Military Forces at the 31st December, 1947 was 24,792.

The Australian Cadet Corps is a voluntary organization comprised of Senior Cadet Detachments raised at educational establishments in all States of the Commonwealth. 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 minimum age for enrolment in school detachments is 14 years, and cadets, who receive a free issue of A.M.F. pattern uniform, may remain therein until they cease to be pupils of respective educational establishments. Provision is made for the appointment of officers, warrant and non-commissioned officers on an authorized scale from within school detachments which, as a matter of general policy, are not affiliated with units of the Military Forces, but may be so affiliated in special cases. The establishment for the whole Corps is 25,000, and by December, 1947 the number of Senior Cadet Units had been increased to 226 with an aggregate strength of approximately 21,283.

(v) *The Australian 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.

Early in the 1939-45 War this School was moved to Duntroon and in April, 1942 it was re-designated the Staff School (Australia). Later in this same year a senior wing was added to the original one. These two wings came under the general control and administration of the Commandant of the Royal Military College (see para. (vi) following), and the College was re-designated the Royal Military College and Staff School (Australia).

Officers were trained in this School for first and second grade staff appointments; students for second grade appointments were trained in the Junior Wing and students for first grade appointments were trained in the Senior Wing. A high standard of training was set from the inception of the School and it has since been continuously maintained. The symbols "SC" and "sc" were awarded to students who qualified at the Senior and Junior Wings respectively. The passing of these courses at the Staff School was laid down as an essential qualification for officers to be eligible for posting to staff appointments in field formations.

Concurrently with the commencement of the course at Duntroon, the First Australian Army Junior Staff School was established at Ashgrove in Queensland for the training of officers for third grade and unit staff appointments. This School was later absorbed into the Staff School (Australia) in 1944, when it was found necessary to centralize the training of staff officers throughout the Army.

Accordingly the two wings were moved from Duntroon to Cabarlah in Queensland, and together with the First Australian Army Junior Staff School's Wing became known again as the Staff School (Australia) which was organized into Grade 1, Grade 2 and Grade 3 wings, the functions of which were to train officers for 1st grade, 2nd grade and 3rd grade staff appointments respectively. An additional function of the Grade 3 wing was to provide training for unit staffs, i.e. adjutants and quartermasters.

The instruction at this School included the staff duties for all types of operations but it was restricted in each wing to the required scope and standard.

Early in 1946 the Staff School (Australia) was moved to Seymour in Victoria and it was re-designated the Australian Staff College in conformity with other Empire training establishments for training officers for command and staff appointments. The College was later moved to Queenscliff in Victoria, where it is at present situated.

The Grade 1 and Grade 3 courses were discontinued at the College in 1946. Grade 2 courses of six months' duration were introduced, which provided for the training of thirty selected students at each course. Since 1947 the courses have been of one year's duration and are held from February to December each year. In Australia students may also be nominated by the Royal Australian Navy, the Royal Australian Air Force and the Commonwealth Public Service.

In order to ensure common standards in organization, equipment, tactical doctrine and staff and command training throughout the Empire the closest liaison is maintained with other Empire Staff Colleges. Since the beginning of 1947 the Staff College courses throughout the Empire have been of one year's duration. The Australian Staff College is imperial in character, as the staff and students are selected from the Empire.

(vi) *Royal Military College.* The Royal Military College was established in 1911 at Duntroon in the Australian Capital Territory for the purpose of providing trained combatant officers for the Australian Regular Army, which was then known as the Permanent Military Forces. The College was officially opened on the 27th June, 1911. In January, 1931 the College was transferred to Victoria Barracks, Sydney, New South Wales, but it returned to Duntroon early in 1937. The conditions of entry are laid down in the "Royal Military College Regulations" and provide for admission by "normal entry", "service entry" and "special entry". The normal length of the course of instruction at the College for cadets admitted by normal entry is four years; for cadets admitted by service entry, three years; and for cadets admitted by special entry, one year. Fees are not charged for the equipment, instruction or maintenance of cadets. Cadets are paid a travelling allowance, an outfit allowance and a maintenance allowance. The maintenance allowance amounts to 7s. 6d. per diem for "normal entry" or "special entry" cadets, and £262 per annum for "special entry" cadets. This maintenance allowance defrays the cost of maintaining uniform and clothing, books,

instruments, messing, washing and other miscellaneous items. The course of instruction is organized into military and civil departments. A Board of Studies advises the Commandant and reports to him on instructional matters, including the progress of cadets. The nature and duration of the course was temporarily modified during the late War. The number of staff cadets undergoing training at the College during the College year of 1947 comprised 103 Commonwealth cadets and 21 New Zealand cadets. New Zealand cadets have been trained at the College, since its foundation, for commissions in the New Zealand permanent forces under an arrangement made with the Government of that Dominion. The instructional staff of the College consists of military and civil members. On graduation, Commonwealth cadets are appointed to the Australian Regular Army in the rank of lieutenant and are then normally sent abroad for further regimental training.

(vii) *Rifle Clubs.* The Australian Rifle Club movement, which had its origin in 1888, is provided for in the Defence Act and comprises a Commonwealth Council of Rifle Associations, which functions in an advisory capacity to the Minister and in the promotion of inter-empire and interstate rifle competitions, State Associations, District Unions and Clubs. Prior to 1931 the administration of the organization was the responsibility of the Secretary for Defence. From that year its control reverted to the Military Board and Rifle Clubs were affiliated as reserves to Militia Force units. They continued in this role until the outbreak of the recent war, when, owing to the urgent demands of the A.I.F. and A.M.F., supplies of ammunition were cancelled and all rifles of members were impressed, mostly on payment. In 1941 rifle clubs were placed in recess and, with the exception of annual miniature rifle competitions, remained inactive until August, 1946, when approval was given for the re-establishment of the movement on a civilian basis under the control of the Secretary, Department of the Army. When placed in recess, the efficient strength of the rifle club movement was 1,018 clubs and 36,478 members. From available statistics it is estimated that, of the membership mentioned, approximately 20 per cent. served overseas and a further 60 per cent. performed home service duties during the recent war. Rifle shooting activities have been resumed, and the strength position as at 30th June, 1948 was 993 clubs and 46,300 members.

(viii) *The Australian Battles Nomenclature Committee.* The Minister for the Army gave approval on the 25th July, 1947 for the formation of the Australian Battles Nomenclature Committee and for its terms of reference to be as follows:—

- (a) to tabulate those operations fought in the Pacific Zones in the 1939-45 War which involved the Australian Military Forces;
- (b) to classify these operations in accordance with a definite system of nomenclature which will denote their relative importance;
- (c) to define the geographical and chronological limits of each operation;
- (d) to advise the United Kingdom Battles Nomenclature Committee regarding operations in zones other than the Pacific Zone in which the Australian Military Forces participated.

The inaugural meeting of this Committee was held at Victoria Barracks, Melbourne on 16th December, 1947, under the chairmanship of General Sir Thomas Blamey. At this meeting sub-committees were appointed to study the various campaigns in order to classify the operations into battles, actions, and engagements. For the purpose of allotting work to the sub-committees, the Battles Nomenclature Committee divided the campaigns in the Pacific Zone into the following six phases:—

- (1) Defence of the outer islands until the time Japanese troops landed at Lae and Salamaua in New Guinea in March, 1942.
- (2) The campaign in Papua.
- (3) The Wau-Salamaua campaign.
- (4) The British New Guinea campaign.
- (5) The battle in the Australian mandated territories.
- (6) The campaign in Borneo.

3. **British Commonwealth Occupation Force.**—For information on the participation of the Australian Military Forces in the occupation of Japan see § 1. 5 above.



4. 1939-45 War.—(i) *General.* For a detailed account of the part played by the Australian Military Forces in the 1939-45 War, together with a chronological list of important events, see Official Year Book No. 36, pages 1016 to 1022.

(ii) *Gross Enlistments.* The number of gross enlistments as at 28th June, 1947 was as follows :—

Australian Imperial Force .. .. .	271,279
Australian Army Nursing Service (A.I.F.) .. .. .	1,563
Australian Army Medical Women's Service (A.I.F.) .. .. .	1,432
Citizen Military Force .. .. .	423,749
Australian Army Nursing Service (C.M.F.) .. .. .	2,352
Australian Army Medical Women's Service (C.M.F.) .. .. .	6,371
Australian Women's Army Service (C.M.F.) .. .. .	24,053
Voluntary Detachment Corps .. .. .	4,982
<b>Total .. .. .</b>	<b>735,781</b>

Transfers to A.I.F. of C.M.F. and P.M.F. Personnel were as follows :—

Citizen Military Force and Permanent Military Force Personnel .. .. .	(a) 209,766
Australian Army Nursing Service Personnel .. .. .	1,878
Australian Army Medical Women's Service Personnel .. .. .	3,013
<b>Total .. .. .</b>	<b>214,657</b>

(a) Includes 2,725 transfers of Permanent Military Force to Australian Imperial Force.

(iii) *Disbandments during 1947.* The Australian Imperial Force was disbanded on the 30th June, 1947, and replaced by the Interim Army. The Australian Women's Army Service, which had been formed on the 29th September, 1941 with the object of enlisting women for the replacement of men in rear areas, was also disbanded on the same date.

(iv) *Casualties.* Particulars of casualties will be found in § 6. following.

(v) *Decorations and Awards.* A list of the numbers of the various decorations and awards conferred appears in § 7. following.

### § 3. Naval Defence.

1. *State Systems.*—Information regarding naval defence systems prior to 1901 will be found in Official Year Book No. 2, p. 1084.

2. *The Present System.*—(i) *General.* (a) *Royal Australian Navy up to end of 1939-45 War.* An outline of the development of Australian Naval policy was given in Official Year Book No. 3, p. 1060 and No. 12, p. 1012. Some account of the building of the Australian Fleet, the proposed and modified cost thereof, the compact with the Imperial Government, etc., appears in Official Year Book No. 15, pp. 921 *et seq.* An account of the growth and activities of the Royal Australian Navy during the 1939-45 War is given in Official Year Book No. 36, pp. 1023 *et seq.*

(b) *Post-war Programme.* In June, 1947 the post-war defence policy of the Commonwealth Government was announced by the Minister for Defence. A sum of £250,000,000 was to be expended over a period of five years in the carrying out of an approved programme (see § 1. 3 (ii) above). Of this amount, the Navy was to receive £75,000,000 allotted at the rate of £15,000,000 annually.

The following is a summary of the naval programme:—

(1) Ships in Commission—

Squadron : It is proposed that by the end of the programme, the Squadron should consist of :—2 Light Fleet Carriers, 2 Cruisers, 6 Destroyers.

Escort Forces : 3 Frigates.

Surveying Duties : 3 Survey ships and their tenders.

Training Ships : 1 Frigate, 2 Australian Minesweeping Vessels, 3 Air/Sea Rescue Vessels.

Auxiliary Vessels : 1 Ocean-going Tug, 1 Ammunition Carrier, 2 Boom Defence Vessels.

(2) Ships to be retained in Reserve and maintained in good condition against any future emergency—

One Cruiser, 2 Destroyers, 6 Frigates, 31 Australian Minesweepers, 39 Miscellaneous Vessels.

(3) Personnel—The total personnel required for the Royal Australian Naval Forces in 1947-48, exclusive of war commitments, is 10,450, comprising 4,040 sea-going forces and 6,410 for shore establishments and pools. The comparable figures to be reached in 1951-52 are 6,756 sea-going forces and 7,997 for shore establishments and pools—a total of 14,753.

(4) Naval Aviation—The first stage of the naval aviation plan is proposed to be implemented in 1947-48. This includes the acquisition (but not the commissioning) of the first carrier, the placing of the order for initial aircraft, and the setting up of recruiting, training and stores establishments for the naval aviation organization. The personnel required in the first year is 448, rising to 3,936 in 1951-52. The amounts provided over the five years for naval aviation total £11,976,000 for capital expenditure and £11,432,000 for maintenance.

(5) Ship Construction and Repair—Provision is made for the maintenance in Australia of a nucleus ship construction and repair industry capable of expansion in war. An average sum of £2,500,000 is proposed to be expended annually on the completion of the present destroyer programme of two under construction and four to be laid down. This will make possible a continuous building programme at Cockatoo Dockyard, Sydney, and the Naval Dockyard at Melbourne.

(6) Shore Establishments—There will be the shore establishments essential for bases for commissioned ships and to provide administrative storing, repair and training facilities.

(c) *Naval Aviation.* Aircraft having become integral elements of a naval force, and, as the modern fleet is built around aircraft carriers, the main feature of the naval programme is the provision of two Light Fleet Carriers, each with a war-time complement of 36 aircraft. The status of Naval Aviation in relation to the Air Force is still under consideration.

(d) *The Relation of New Weapons.* Careful consideration has been given to the implications of new weapons, and the decisions in regard to the Navy are based on the broad conclusions of the great naval powers that these weapons should be introduced by the normal process of evolution, first into existing ships, and later perhaps into an entirely new form of fighting ship. The same authoritative opinion is of the view that there will be no rapid development which will render vessels such as carriers, cruisers and destroyers obsolete within the near future.

(e) *Manus Island (Admiralties).* It is proposed to establish an R.A.N. base at Manus Island, which will replace the present New Guinea Base at Dreger Harbour, New Guinea.

(ii) *Naval Board.* With the introduction of a Naval Aviation Branch to the Australian Navy, a Naval Member for Air has been added to the Board which now consists of the Minister for the Navy with four Naval Members, one Finance Member and the Secretary, Department of the Navy (ex-officio); the seat of administration remains at Melbourne.

(iii) *Naval College.* Twenty-eight Cadet Midshipmen entered the Naval College for training in the year commenced January, 1948. In addition, there were six seventeen-year-old youths who entered for training for the Supply and Secretariat Branch. This is the largest number of entries since the year 1919, when 32 Cadets were admitted.

(iv) *Training Establishments.* Flinders Naval Depot, Victoria, remains the principal training establishment for ratings in the permanent forces, while several advanced training schools are established in Port Jackson, New South Wales.

(v) *System of Payment.* Since the close of hostilities in August, 1945, the entire pay code of the R.A.N. has been revised and a new code is now operative. The Government is at present giving active consideration to the change-over of the system of deferred pay for permanent personnel to a scheme of pensions comparable to the pension system already existant in the Royal Navy.

(vi) *The Naval Station.* On 28th March, 1947 the following limits of the Australian Naval Station were defined :—

East—From the equator at 169° East, south to 1° South, thence east to 170° East, thence south along this meridian to 30° South, thence to 45° South, 160° East, thence south along this meridian.

West—From 13° South, 95° 15' East, south along this meridian to 30° South, thence west along this parallel to 80° East, thence south.

North—From the equator at 169° East to 134° East, thence to 5° North, 127° East, thence to 4° 15' North, 120° East, thence to 2° North, 120° East, thence to 7° 45' South, 115° 50' East, thence through centre of Lombok Strait to 10° South, 115° 50' East, thence to 13° South, 95° 15' East.

(vii) *BCOF.* The contribution of the R.A.N. to the Occupational Forces of Japan early in 1948 was the maintenance of two destroyers on the Japanese Station and the constant employment of H.M.A.S. *Kanimbla* as a troopship.

3. *Ships of the Royal Australian Navy.*—The following table shows particulars of ships of the R.A.N. in commission and in reserve in October, 1947 :—

#### SHIPS OF THE ROYAL AUSTRALIAN NAVY, OCTOBER, 1947.

Vessel.	Description.	Displacement.	Power.
In Commission—		Tons.	H.P.
<i>Australia</i> .. .. .	Cruiser .. .. .	9,870	80,000
<i>Shropshire</i> .. .. .	.. .. .	9,870	80,000
<i>Hobart</i> .. .. .	.. .. .	7,100	72,000
<i>Bataan</i> .. .. .	Destroyer .. .. .	1,870	44,000
<i>Arunta</i> .. .. .	.. .. .	1,870	44,000
<i>Warramunga</i> .. .. .	.. .. .	1,870	44,000
<i>Quiberon</i> .. .. .	.. .. .	1,760	44,000
<i>Quickmatch</i> .. .. .	.. .. .	1,760	44,000
<i>Shoalhaven</i> .. .. .	Frigate .. .. .	1,544	5,500
<i>Barcoo</i> .. .. .	.. .. .	1,420	5,500
<i>Condamine</i> .. .. .	.. .. .	1,544	5,500
<i>Lachlan</i> .. .. .	.. .. .	1,420	5,500
<i>Culgoa</i> .. .. .	.. .. .	1,420	5,500
<i>Murchison</i> .. .. .	.. .. .	1,544	5,500

SHIPS OF THE ROYAL AUSTRALIAN NAVY, OCTOBER, 1947—*continued.*

Vessel.	Description.	Displacement.	Power.
		Tons.	H.P.
<i>In Commission—continued.</i>			
<i>Swan</i> .. .. .	Sloop .. .. .	1,060	2,000
<i>Warrego</i> .. .. .	" .. .. .	1,060	2,000
<i>Deloraine</i> .. .. .	Australian Mine Sweeper .. .. .	650	1,800
<i>Echuca</i> .. .. .	" " " .. .. .	650	1,800
<i>Katoomba</i> .. .. .	" " " .. .. .	650	1,800
<i>Lithgow</i> .. .. .	" " " .. .. .	650	1,800
<i>Mildura</i> .. .. .	" " " .. .. .	650	1,800
<i>Warrnambool</i> .. .. .	" " " .. .. .	650	1,800
<i>Lastrobe</i> .. .. .	" " " .. .. .	650	1,800
<i>Gladstone</i> .. .. .	" " " .. .. .	650	1,800
<i>Manoora</i> .. .. .	Landing Ship (Infantry) .. .. .	10,856	..
<i>Kanimbla</i> .. .. .	" " " .. .. .	10,985	..
<i>Kurumba</i> .. .. .	H.M.A. Fleet Auxiliary .. .. .	3,976	..
Miscellaneous—Forty-three			
<i>In Reserve—</i>			
<i>Quadrant</i> .. .. .	Destroyer .. .. .	1,760	44,000
<i>Quality</i> .. .. .	" .. .. .	1,760	44,000
<i>Queenborough</i> .. .. .	" .. .. .	1,760	44,000
<i>Barwon</i> .. .. .	Frigate .. .. .	1,420	5,500
<i>Burdekin</i> .. .. .	" .. .. .	1,420	5,500
<i>Diamantina</i> .. .. .	" .. .. .	1,420	5,500
<i>Gascoyne</i> .. .. .	" .. .. .	1,420	5,500
<i>Hawkesbury</i> .. .. .	" .. .. .	1,420	5,500
<i>Macquarie</i> .. .. .	" .. .. .	1,420	5,500
<i>Ararat</i> .. .. .	Australian Mine Sweeper .. .. .	650	1,800
<i>Bundaberg</i> .. .. .	" " " .. .. .	650	1,800
<i>Castlemaine</i> .. .. .	" " " .. .. .	650	1,800
<i>Coolamundra</i> .. .. .	" " " .. .. .	790	1,800
<i>Fremantle</i> .. .. .	" " " .. .. .	650	1,800
<i>June</i> .. .. .	" " " .. .. .	790	1,800
<i>Wagga</i> .. .. .	" " " .. .. .	650	1,800
<i>Parkes</i> .. .. .	" " " .. .. .	650	1,800
<i>Glenelg</i> .. .. .	" " " .. .. .	650	1,800
<i>Horsham</i> .. .. .	" " " .. .. .	650	1,800
<i>Townsville</i> .. .. .	" " " .. .. .	650	1,800
<i>Gympie</i> .. .. .	" " " .. .. .	650	1,800
<i>Inverell</i> .. .. .	" " " .. .. .	650	1,800
<i>Dubbo</i> .. .. .	" " " .. .. .	650	1,800
<i>Rockhampton</i> .. .. .	" " " .. .. .	650	1,800
<i>Kapunda</i> .. .. .	" " " .. .. .	650	1,800
<i>Kiama</i> .. .. .	" " " .. .. .	650	1,800
<i>Colac</i> .. .. .	" " " .. .. .	650	1,800
<i>Cowra</i> .. .. .	" " " .. .. .	790	1,800
<i>Bunbury</i> .. .. .	" " " .. .. .	650	1,800
<i>Benalla</i> .. .. .	Surveying Vessel .. .. .	560	1,800
<i>Shepparton</i> .. .. .	" " " .. .. .	560	1,800
<i>Platypus</i> .. .. .	Depot Ship .. .. .	3,455	3,500
<i>Sprightly</i> .. .. .	Tug .. .. .	763	1,875
<i>Kookaburra</i> .. .. .	Boom Working Vessel .. .. .	533	450
Miscellaneous—Sixty-five			

4. **Strength of Royal Australian Navy.**—The strength of the Royal Australian Naval forces, both permanent and reserves, at 31st December, 1947 is shown below :—

**STRENGTH OF ROYAL AUSTRALIAN NAVAL FORCES (PERMANENT AND RESERVES), 31st DECEMBER, 1947.**

Particulars.	Numbers Borne.		
	In Training.	Officers.	Men.
Royal Australian Navy—Sea-going .. ..	..	621	10,036
Emergency List .. ..	..	45	..
Retired .. ..	..	9	..
Royal Australian Naval Auxiliary Services .. ..	..	13	45
Cadet Midshipmen undergoing training at R.A.N. College .. ..	77	..	..
Royal Australian Naval Reserve (Sea-going) .. ..	..	51	..
Royal Australian Fleet Reserve .. ..	..	..	20
Royal Australian Naval Reserve .. ..	..	47	84
Royal Australian Naval Volunteer Reserve .. ..	..	61	4
<b>Total .. ..</b>	<b>77</b>	<b>847</b>	<b>10,189</b>

5. **Casualties, 1939-45 War.**—A table showing the numbers of casualties in the European and Pacific zones of operations is included in § 6.

6. **Decorations and Awards, 1939-45 War.**—Particulars of decorations and awards appear in § 7. following.

### § 4. Air Defence.

1. **General.** A statement respecting the preliminary steps taken in connexion with the development of air defence will be found in Official Year Book No. 18, p. 610, and one on the expansion and development, and zones and operations of the Royal Australian Air Force during the 1939-45 War appears in Official Year Book No. 36, p. 1027.

2. **Administration and Organization.**—The Department of Air is responsible for policy for organization and control of the Royal Australian Air Force. The Air Board is responsible, subject to approved policy, for the control 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 Engineering and Maintenance, Air Member for Supply and Equipment, and Finance Member. The Secretary, Department of Air, is ex-officio a member of the Air Board.

Head-quarters of the Royal Australian Air Force is located at Melbourne. An Overseas Head-quarters is located at London and an Air Attaché at Washington, U.S.A.

With the exception of certain technical units which are allotted to the direct command of a Maintenance Group and those units (including three fighter Squadrons) located in Japan with the British Commonwealth Occupation Forces, the units of the Royal Australian Air Force are organized in five geographical areas throughout Australia.

The geographical areas of command are—

Southern Area—Head-quarters Southern Area controls Air Force units in Victoria, Tasmania and South Australia.

Eastern Area—Head-quarters Eastern Area controls Air Force units in New South Wales and Southern Queensland.

North-Eastern Area—Head-quarters North-Eastern Area controls Air Force units in northern Queensland, New Guinea and adjacent islands.

North-Western Area—Head-quarters North-Western Area controls Air Force units in Northern Territory.

Western Area—Head-quarters Western Area controls Air Force units in Western Australia.

The organization of the Royal Australian Air Force includes the following types of units :—

- (a) R.A.A.F. Stations ;
- (b) Bomber, Fighter, Transport, Tactical Reconnaissance, Survey, Target Towing, Communication and Search and Rescue Squadrons ;
- (c) Aircraft Depots ;
- (d) Stores Depots ;
- (e) Transportation and Movement Offices ;
- (f) Flying Training, Ground Training, Navigation, Radio and Air Armament Schools ;
- (g) Royal Australian Air Force College ;
- (h) Telecommunication Units.

3. **Aircraft.**—Some of the aircraft which are at present being used in the Royal Australian Air Force are Mustangs (fighters), Lincolns, Liberators, Mosquitos and Beaufighters (bombers), Dakotas (transports), Catalinas (general reconnaissance aircraft), and Ansons, Tiger Moths, Oxfords and Wirraways (training aircraft).

4. **Establishment.**—The present interim establishment of the Royal Australian Air Force is approximately 15,000 officers, members of R.A.A.F. Nursing Service and airmen. The interim establishment is being decreased continually with the completion of many war-time commitments and will be reduced to a Permanent Air Force establishment of approximately 12,000 officers, members of R.A.A.F. Nursing Service and airmen, plus officers and airmen of the Citizen Air Force.

5. **Casualties, 1939–45 War.**—For details of casualties incurred by R.A.A.F. personnel during the 1939–45 War see § 6. following.

6. **Decorations and Awards, 1939–45 War.**—The numbers of decorations and awards won by members of the R.A.A.F. during the 1939–45 War are shown in § 7. following.

## § 5. Enlistments in the Australian Services.

1. **Net Enlistments.**—The following table shows the number of net enlistments for full-time duty in each of the Services as at various dates in the years 1939 and 1941 to 1947. "Net enlistments" represents "gross enlistments" less discharges and deaths, and may be regarded as a measure of the strengths of the Services at those dates. It should be remembered, however, that deductions are not made for prisoners-of-war, deserters, and personnel absent sick, without leave, etc. and the figures are therefore higher than the "effective" strengths at the same dates. Totals for the last two years include British Commonwealth Occupation Force and Interim Force personnel.

## NET ENLISTMENTS : AUSTRALIAN SERVICES.

At End of—	Royal Australian Navy.		Australian Military Forces.		Royal Australian Air Force.		All Services.		
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Persons.
Sept., 1939 ..	7,982	..	3,432	..	3,489	..	14,903	..	14,903
Nov., 1941 ..	19,367	..	285,725	2,375	59,782	1,410	364,874	3,785	368,659
Aug., 1942 ..	22,650	125	515,307	10,371	96,688	10,955	634,645	21,451	656,096
Aug., 1943 ..	31,335	1,647	515,085	27,485	139,526	16,922	685,946	46,054	732,000
Aug., 1944 ..	33,024	2,088	453,493	26,584	162,846	19,031	649,363	47,703	697,066
June, 1945 ..	37,693	2,720	403,042	24,034	158,542	17,974	599,277	44,728	644,005
June, 1946 ..	18,745	788	93,328	7,944	19,989	2,669	132,062	11,401	143,463
June, 1947 ..	11,145	31	31,375	817	11,943	101	54,463	949	55,412

2. **Gross Enlistments, 1939-45 War.**—The gross enlistments of war service personnel, plus permanent personnel at the beginning of the war, plus gross enlistments in the permanent forces, about the end of 1945 or early in 1946, numbered 993,000, and of these 66,100 were of females. Totals for each service, males and females respectively, were :—R.A.N., 45,800, 3,100; A.M.F., 691,400, 35,800; R.A.A.F. 189,700, 27,200.

## § 6. Casualties : Australian Services, 1939-45 War.

1. **General.**—This section contains revised information, in greater detail than was published in the previous issue of the Official Year Book, on casualties to members of each of the Australian Fighting Services during the 1939-45 War. The information is dissected into nature of casualty, theatre of war and zone of operations. A separate table is devoted to each of the following classes of casualties—(i) Battle Casualties, (ii) Non-battle Casualties on Operations or in Operational Areas, and (iii) Casualties not on Operations or in Operational Areas. A summary table is also included, showing all casualties in each service according to the nature of casualty. The figures for the respective Services are as comparable as inherent differences in the nature of the Services, their methods of operation and their systems of records will permit. The letterpress accompanying each table contains such explanation as is considered necessary to amplify or qualify the figures shown.

All casualties to servicemen and women during the 1939-45 War are included in these tables. Deaths and illnesses, etc. from natural causes are *not* included, and complete information for all services is not available. Deaths, however, numbered 3,667 (R.A.N., 148; A.M.F., 3,155; R.A.A.F., 364) and illnesses for the A.M.F. alone numbered 1,557,651 cases.

It should be noted that while the figures for "Killed" and "Prisoners-of-war, escaped, etc." refer to *persons*, those for "Wounded and injured" refer to *cases*. Thus totals represent the number of casualties, and not the number of persons who suffered therein.

2. **All Casualties, Australian Services, 1939-45 War.**—The following table is a summary of all casualties to members of the Fighting Services during the 1939-45 War.

## ALL CASUALTIES : AUSTRALIAN SERVICES, 1939-45 WAR.(a)

Particulars.	Royal Australian Navy.	Australian Military Forces.	Royal Australian Air Force.	All Services.
Killed, died of wounds, injuries, etc. . .	2,004	21,558	10,264	33,826
Prisoners-of-war escaped, recovered or repatriated . . . . .	263	20,920	1,876	23,059
Wounded, injured, etc. (cases) . . . . .	579	177,049	3,236	180,864
<b>Total</b> . . . . .	<b>2,846</b>	<b>219,527</b>	<b>15,376</b>	<b>237,749</b>

(a) Excludes deaths and illnesses from natural causes.

3. **Battle Casualties, Australian Services, 1939-45 War.**—The table hereunder shows particulars of battle casualties under the headings of "War against Germany" and "War against Japan". The following brief explanations are considered necessary for the sake of preciseness.

R.A.N. : "Wounded and injured" includes all cases of wounded and injured in action *and on service*. Separation into operational and non-operational areas is not practicable.

A.M.F. : Figures include 222 deaths and 34 wounded in sinking of A.H.S. *Centaur* off the east coast of Australia and 15 deaths and 138 wounded in air raids on Darwin and Port Hedland.

R.A.A.F. : Figures refer to casualties incurred in operations against the enemy.

## BATTLE CASUALTIES : AUSTRALIAN SERVICES, 1939-45 WAR.(a)

Particulars.	Royal Australian Navy.	Australian Military Forces.	Royal Australian Air Force.	All Services.
WAR AGAINST GERMANY.				
<b>Killed—</b>				
Killed in action and missing, presumed dead . . . . .	873	2,688	5,036	8,597
Died of wounds . . . . .	3	701	58	762
Died of sickness while prisoner-of-war	..	55	} 22	172
Died of sickness, disease and injury while prisoner-of-war . . . . .	..	95		
<b>Total killed</b> . . . . .	<b>876</b>	<b>3,539</b>	<b>5,116</b>	<b>9,531</b>
Prisoners-of-war escaped, recovered or repatriated . . . . .	26	7,055	1,459	8,540
Wounded and injured in action (cases)	26	8,578	529	9,133
<b>Total</b> . . . . .	<b>928</b>	<b>19,172</b>	<b>7,104</b>	<b>27,204</b>

(a) Excludes deaths and illnesses from natural causes.



## BATTLE CASUALTIES: AUSTRALIAN SERVICES, 1939-45 WAR(a)—continued.

Particulars.	Royal Australian Navy.	Australian Military Forces.	Royal Australian Air Force.	All Services.
WAR AGAINST JAPAN.				
Killed—				
Killed in action and missing, presumed dead .. .. .	852	8,635	1,140	10,627
Died of wounds .. .. .	38	1,093	65	1,196
Died of wounds while prisoner-of-war	63	48	126	5,597
Died of sickness, disease and injury while prisoner-of-war .. .. .		5,360		
Total killed .. .. .	953	15,136	1,331	17,420
Prisoners-of-war escaped, recovered or repatriated .. .. .	237	13,865	417	14,519
Wounded and injured in action (cases)..	553	13,275	253	14,081
Total .. .. .	1,743	42,276	2,001	46,020

## ALL THEATRES OF WAR.

Killed—				
Killed in action and missing, presumed dead .. .. .	1,725	11,323	6,176	19,224
Died of wounds .. .. .	41	1,794	123	1,958
Died of wounds while prisoner-of-war	63	103	148	5,769
Died of sickness, disease and injury while prisoner-of-war .. .. .		5,455		
Total killed .. .. .	1,829	18,675	6,447	26,951
Prisoners-of-war escaped, recovered or repatriated .. .. .	263	20,920	1,876	23,059
Wounded and injured in action (cases)..	579	21,853	782	23,214
Total .. .. .	2,671	61,448	9,105	73,224

(a) Excludes deaths and illnesses from natural causes.

4. **Non-Battle Casualties on Operations or in Operational Areas, Australian Services, 1939-45 War.**—The next table shows particulars of casualties, other than in battle, incurred on operations or in operational areas, classified according to theatre of war.

R.A.N.: "Killed, etc." represents mainly fatal accidents on service, including drownings. All personnel injured on service are included in the previous table.

A.M.F.: Figures include all casualties in operational areas other than actual battle casualties.

R.A.A.F.: Figures represent casualties in operational areas, but not directly the result of operations. They include all casualties in the United Kingdom other than those incurred in operations.

NON-BATTLE CASUALTIES ON OPERATIONS OR IN OPERATIONAL AREAS :  
AUSTRALIAN SERVICES, 1939-45 WAR.(a)

Particulars.	Royal Australian Navy.	Australian Military Forces.	Royal Australian Air Force.	All Services.
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## WAR AGAINST GERMANY.

Killed, died of injuries, etc. . .	..	40	352	1,496	1,888
Wounded, injured, etc. (cases)	..	..	9,196	845	10,041
Total .. .. .	..	40	9,548	2,341	11,929

## WAR AGAINST JAPAN.

Killed, died of injuries, etc. . .	..	45	736	689	1,470
Wounded, injured, etc. (cases)	..	..	24,200	633	24,833
Total .. .. .	..	45	24,936	1,322	26,303

## ALL THEATRES OF WAR.

Killed, died of injuries, etc. . .	..	85	1,088	2,185	3,358
Wounded, injured, etc. (cases)	..	..	33,396	1,478	34,874
Total .. .. .	..	85	34,484	3,663	38,232

(a) Excludes deaths and illnesses from natural causes.

5. Casualties not on Operations or in Operational Areas, Australian Services, 1939-45 War.—The figures hereunder relate to all casualties other than those in paras. 3 and 4 above.

R.A.N. : "Killed, etc." represents fatal accidents mainly ashore. All personnel injured on service are included in Battle Casualties.

A.M.F. : Figures include all casualties during training and from traffic accidents, etc.

R.A.A.F. : Figures for "Australia" include all training casualties in Australia ; those for "Overseas" include all casualties incurred in Canada and Rhodesia. Only the more serious cases which were reportable to next-of-kin are represented. Figures for others are not available.

## CASUALTIES NOT ON OPERATIONS OR IN OPERATIONAL AREAS : AUSTRALIAN SERVICES, 1939-45 WAR.(a)

Particulars.	Royal Australian Navy.	Australian Military Forces.	Royal Australian Air Force.	All Services.
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## AUSTRALIA.

Killed, died of injuries, etc. . . . .	64	1,795	1,441	3,300
Wounded, injured, etc. (cases) . . . . .	..	121,800	873	122,673
Total .. .. .	64	123,595	2,314	125,973

## OVERSEAS.

Killed, died of injuries, etc. . . . .	26	..	168	194
Wounded, injured, etc. (cases) . . . . .	..	..	60	60
Total .. .. .	26	..	228	254

## TOTAL.

Killed, died of injuries, etc. . . . .	90	1,795	(b) 1,632	(b) 3,517
Wounded, injured, etc. (cases) . . . . .	..	121,800	(c) 976	(c) 122,776
Total .. .. .	90	123,595	2,608	126,293

(a) Excludes deaths and illnesses from natural causes. (b) Includes 23 members of W.A.A.A.F. not allocated between Australia and Overseas. (c) Includes 42 members of W.A.A.A.F. and one of R.A.A.F.N.S. not allocated between Australia and Overseas.

## § 7. Decorations and Awards, 1939-45 War.

The numbers of the various decorations and awards conferred on members of each of the fighting forces for gallantry or other meritorious service during the 1939-45 War, revised since the previous issue of the Official Year Book, appear on the opposite page.

DECORATIONS AND AWARDS : AUSTRALIAN SERVICES, 1939-45 WAR.

Decoration or Award.	Royal Australian Navy.	Australian Military Forces.	Royal Australian Air Force.	All Services.
<b>British Decorations or Awards—</b>				
Victoria Cross (V.C.) .. .. .	..	17	2	19
George Cross (G.C.) .. .. .	4	1	..	5
Knight Grand Cross Order of British Empire (G.B.E.) .. .. .	..	1	..	1
Knight Commander Order of Bath (K.C.B.) .. .. .	..	2	..	2
Knight Commander Victoria Order (K.C.V.O.) .. .. .	1	..	..	1
Knight Commander Order of British Empire (K.B.E.) .. .. .	..	4	..	4
Companion Order of Bath (C.B.) .. .. .	3	20	4	27
Companion Order of St. Michael and St. George (C.M.G.) .. .. .	1	..	..	1
Commander Order of British Empire (C.B.E.) .. .. .	8	93	15	116
Officer Order of British Empire (O.B.E.) .. .. .	31	230	61	322
Distinguished Service Order (D.S.O.) .. .. .	18	177	68	263
Distinguished Service Order Bar .. .. .	3	21	4	28
Member Victorian Order (M.V.O.) .. .. .	..	..	1	1
Member Order of British Empire (M.B.E.) .. .. .	42	381	96	519
Royal Red Cross (R.R.C.) .. .. .	..	18	3	21
Royal Red Cross (Associate) .. .. .	..	32	4	36
Distinguished Service Cross (D.S.C.) .. .. .	149	..	..	149
Distinguished Service Cross, Bar .. .. .	10	..	..	10
Distinguished Service Cross, Second Bar .. .. .	2	..	..	2
Military Cross (M.C.) .. .. .	..	500	7	507
Military Cross, Bar .. .. .	..	15	..	15
Distinguished Flying Cross (D.F.C.) .. .. .	1	1	2,179	2,181
Distinguished Flying Cross, Bar .. .. .	..	..	124	124
Distinguished Flying Cross, Second Bar .. .. .	..	..	1	1
Air Force Cross (A.F.C.) .. .. .	..	..	165	165
Albert Medal .. .. .	1	..	..	1
Medal for Distinguished Conduct in the Field (D.C.M.) .. .. .	..	197	2	199
Conspicuous Gallantry Medal (C.G.M.) .. .. .	1	..	10	11
George Medal (G.M.) .. .. .	9	13	20	42
George Medal, Bar .. .. .	3	..	..	3
Distinguished Service Medal (D.S.M.) .. .. .	157	..	..	157
Distinguished Service Medal, Bar .. .. .	2	..	..	2
Military Medal (M.M.) .. .. .	..	983	4	987
Military Medal, Bar .. .. .	..	5	..	5
Distinguished Flying Medal (D.F.M.) .. .. .	..	..	409	409
Distinguished Flying Medal, Bar .. .. .	..	..	2	2
Air Force Medal (A.F.M.) .. .. .	..	..	16	16
British Empire Medal (B.E.M.) .. .. .	35	168	57	260
Mention in Despatches .. .. .	601	6,189	1,786	8,576
King's Commendation for Brave .. .. .	..	12	..	12
Knight of Grace of Order of St. John of Jerusalem .. .. .	..	3	..	3
Commander-in-Chief Cards .. .. .	..	1,082	..	1,082
Commendation Cards .. .. .	12	177	168	357
<b>Total British Decorations or Awards .. .. .</b>	<b>1,094</b>	<b>10,342</b>	<b>5,208</b>	<b>16,644</b>
<b>Foreign Decorations or Awards .. .. .</b>	<b>57</b>	<b>145</b>	<b>171</b>	<b>373</b>
<b>Grand Total .. .. .</b>	<b>(a) 1,151</b>	<b>(b) 10,487</b>	<b>(c) 5,379</b>	<b>17,017</b>

(a) In addition, 45 decorations or awards were made to British personnel in Australian Services, and one to a civilian with the Australian Services. (b) In addition, 18 decorations or awards were made to British or Allied personnel on loan to A.M.F., 41 to civilians with A.M.F., and 363 to natives with A.M.F. (c) Excludes decorations and awards to R.A.F. personnel on loan to R.A.A.F. and to members of R.A.F. who were Australian by birth—particulars are not available.

Foreign awards include those of the United States of America, Russia, Greece, Poland France, Holland, Belgium and Lebanon.

## § 8. Australian Troops (1914–18 War).

Particulars of the enlistments, casualties, honours and decorations won, and engagements of the Australian Imperial Force during the 1914–18 War are given in Official Year Book No. 16, pp. 628 *et seq.*

## § 9. Department of Munitions.

1. **General.**—Information regarding munitions production prior to the 1939–45 War appears in earlier issues of this publication (*see* No. 18, pp. 612–616 and No. 32, p. 241). A statement of the main developments in the organization and output of the Department of Munitions during the 1939–45 War—covering the period to 30th June, 1945—will be found in Official Year Book No. 36, pp. 1037–1068.

The end of the war with Japan, although it came suddenly on 15th August, 1945, had been anticipated, so that departmental plans for a “tapering off” of munitions production had already been prepared. An essential part of the plan was the lifting of “controls” to the greatest extent practicable, so that civilian requirements of manufactured goods might be put into production at the earliest possible moment, thus providing immediate employment for the displaced labour. So effective was the transition of the munitions organization from war to peace-time conditions that the change-over passed unnoticed in its effect upon employment. Nevertheless, the personnel employed, which stood at 28,398 on 30th June, 1945, had become 12,413 by 30th June, 1946, including some 3,000 engaged solely upon manufacturing for commercial industry.

2. **Functions of the Department.**—An outline of the functions of the Department was given in Year Book No. 36. They are founded on the principle that the Department acts as the medium for producing the munitions requirements of the armed forces, and such other requirements as may be found necessary. Responsibility for the provision of funds necessary to meet all expenses incurred in production, or in the development of productive capacity in connexion with any demand for supplies, rests on the body or authority making the demand.

3. **Controls Exercised by the Department of Munitions.**—As the war position became easier, the Department was able progressively to relax the controls operated by it during the war. On 3rd December, 1945 any remaining controls of materials (including ferrous and non-ferrous metals) over which jurisdiction had still been retained were transferred, as far as the Commonwealth was concerned, to the Department of Works and Housing.

Control of machine tools, ball and roller bearings, electrical machinery, and radio and signal parts was relinquished by the end of December, 1945, the control of hand tools on 17th June, 1946, and of industrial chemicals in October, 1945. In March, 1946 control of timber was transferred to the Department of Works and Housing.

4. **Government Munitions Factories and Establishments.**—On the defeat of Germany, planning commenced for a reduction of war activities in the factories and a readjustment towards peace-time activities. At 30th June, 1945 there were 23 of the war-time peak number of 47 factories still in operation, but 14 ceased manufacturing during the year, leaving 9 to be continued as a post-war organization.

The following is a list of the 9 remaining munitions factories which operated together with the Drawing Office and ancillary Stores and Transport Branches, showing capital valuations as at 30th June, 1946.

**GOVERNMENT MUNITIONS FACTORIES AND ESTABLISHMENTS : CAPITAL VALUATIONS, 30th JUNE, 1946.**

Establishment.	Land.	Buildings and Works.	Plant and Equipment.	Total.
	£	£	£	£
<i>Ammunition Factories—</i>				
Footscray, Victoria .. ..	17,849	1,040,744	2,594,558	3,653,151
Finsbury, South Australia .. ..	22,427	1,067,475	866,516	1,956,418
<i>Ordnance Factories—</i>				
Maribyrnong, Victoria .. ..	5,456	1,208,955	3,930,062	5,144,473
Echuca, Victoria .. ..	2,001	101,082	227,902	330,985
Bendigo, Victoria .. ..	19,187	625,348	1,586,762	2,231,297
<i>Drawing Office—</i>				
Maribyrnong, Victoria .. ..	(a)	(a)	(a)	(a)
<i>Munitions Supply Laboratories—</i>				
Maribyrnong, Victoria .. ..	144	257,585	451,333	709,062
<i>Explosives Factories—</i>				
Maribyrnong, Victoria .. ..	50,989	1,749,873	1,690,277	3,491,139
Mulwala, New South Wales .. ..	810	1,816,467	1,452,074	3,269,351
Salisbury, South Australia .. ..	49,936	5,042,881	2,074,313	7,167,130
<i>Small Arms Factory—</i>				
Lithgow, New South Wales .. ..	6,874	846,534	3,178,649	4,032,057
<b>Sub-total .. ..</b>	<b>175,673</b>	<b>13,756,944</b>	<b>18,052,446</b>	<b>31,985,063</b>
<i>Stores and Transport Depots—</i>				
Maribyrnong, Victoria .. ..	35,743	883,671	391,323	1,310,737
Sydney, New South Wales .. ..	2,725	860,188	202,277	1,065,190
Brisbane, Queensland .. ..	..	51,931	14,075	66,006
Finsbury North, South Australia .. ..	33,631	674,313	103,261	811,205
Perth, Western Australia .. ..	656	44,785	19,760	65,201
Hobart, Tasmania .. ..	1,106	34,106	6,862	42,074
Oaklands, New South Wales .. ..	2,701	386,873	69,616	459,190
<b>Sub-total .. ..</b>	<b>76,562</b>	<b>2,935,867</b>	<b>807,174</b>	<b>3,819,603</b>
<b>Total .. ..</b>	<b>252,235</b>	<b>16,692,811</b>	<b>18,859,620</b>	<b>35,804,666</b>

(a) Included in Ordnance Factory, Maribyrnong.

5. **Munitions Production.**—Substantial decreases in practically all grades of weapons and ammunition followed the falling-off in the demands received from the Services during the year 1945-46. Main items produced were rifles, small arms and light anti-aircraft ammunition, as well as a certain amount of bombs and mines, machine guns and mountings. There was no production of mortars, Hispano and Polsten cannon, Bofors, anti-aircraft, or tank-attack guns.

Other types of production included electrical equipment, field cable, engineering equipment, fabric mesh, trailers, refrigeration units, radio transmitters and receivers, signal equipment and small craft.

6. **Value of Output.**—The following figures of value of output of the Government munitions establishments provide an over-all picture of the rise and fall in munitions production between 1939 and 1946. They cover not only production connected with the fulfilment of Service orders for munitions, but also the manufacture of equipment such

as tools and gauges for use within the factories, as well as work performed on capital account, e.g., manufacture of machine tools, plant installation costs, and minor construction work. For 1945-46 the figures include £606,000 on commercial account. As far as the Laboratories are concerned, the figures cover expenditure connected with the scientific functions of the establishment, as well as costs of production of respirators, and repair, reconditioning and servicing of instruments, etc.

The figures do not represent value of finished product in any one year, but are the total costs of production during each of the years 1939-40 to 1945-46 and include, therefore work in progress at the end of each year.

To avoid over-statement, stores or components issued by one Government factory to another have been excluded from the value of production of the factory which received them.

#### GOVERNMENT MUNITIONS FACTORIES : VALUE OF OUTPUT.

Year.	Ammu- nition.	Explosives.	Ordnance.	Small Arms.	Munitions Labora- tories.	Total.
	£	£	£	£	£	£
1939-40 ..	1,501,493	729,046	846,998	421,448	192,895	3,691,880
1940-41 ..	4,211,161	1,897,082	2,031,935	1,555,483	494,632	10,190,293
1941-42 ..	9,375,404	5,569,316	3,940,818	3,052,569	874,493	22,812,510
1942-43 ..	12,014,516	9,945,741	5,261,267	6,129,307	900,796	34,251,627
1943-44 ..	8,072,923	7,636,636	4,313,949	5,267,507	526,728	25,817,743
1944-45 ..	4,413,210	4,391,712	2,749,599	2,399,252	409,651	14,363,424
1945-46 ..	1,713,869	1,321,443	1,620,785	996,603	316,362	5,969,062
Total ..	41,302,576	31,490,976	20,765,351	19,822,169	3,715,407	117,096,539

7. **Employment.**—Employment in administrative sections of the Department of Munitions and at munitions factories and establishments at the 30th June, 1939 to 1946 was as follows. The table illustrates the rise and decline of female employment in the factories.

#### ADMINISTRATIVE OFFICES AND GOVERNMENT MUNITIONS FACTORIES AND ESTABLISHMENTS : EMPLOYMENT.

30th June—	Administrative Offices.			Government Munitions Factories and Establishments.			Total.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
1939 ..	12	6	18	4,481	574	5,055	4,493	580	5,073
1940 ..	199	94	293	10,315	1,642	11,957	10,514	1,736	12,250
1941 ..	980	493	1,473	18,976	5,756	24,732	19,956	6,249	26,205
1942 ..	2,107	1,617	3,724	31,973	16,245	48,218	34,080	17,862	51,942
1943 ..	3,118	3,115	6,233	32,210	22,548	54,758	35,328	25,663	60,991
1944 ..	2,573	2,880	5,453	20,368	12,035	32,403	22,941	14,915	37,856
1945 ..	2,252	2,403	4,655	16,087	7,656	23,743	18,339	10,059	28,398
1946 ..	1,698	1,146	2,844	8,549	1,020	9,569	10,247	2,166	12,413

8. Salaries, Wages and like Payments.—The importance of the munitions effort in respect of public income is demonstrated by the following statement of payments:—

**MUNITIONS ADMINISTRATION, GOVERNMENT MUNITIONS FACTORIES, ETC. :  
SALARIES, WAGES AND LIKE PAYMENTS.**

Year.	Munitions Administration.	Government Munitions Factories and Establishments.	Technical Training Scheme.	Total.
	£	£	£	£
1939-40 .. .. .	67,402	2,073,007	26,928	2,167,337
1940-41 .. .. .	160,705	5,780,385	635,944	6,577,034
1941-42 .. .. .	817,211	11,676,397	753,884	13,247,492
1942-43 .. .. .	1,725,626	17,470,114	529,237	19,724,977
1943-44 .. .. .	1,953,774	14,827,086	83,458	16,864,318
1944-45 .. .. .	1,707,721	8,632,992	56,695	10,397,408
1945-46 .. .. .	1,291,521	4,566,846	1,497	5,859,864

9. Production Directorates.—(i) *General*. During the war years eight directorates were set up to develop industries for the production of various groups of munitions. At the peak period of production these directorates and associated directive bodies totalled sixteen. By June, 1945 twelve of them were still active. At 30th June, 1946 seven production directorates were still in existence—Gun Ammunition, Explosives Supply, Ordnance Production, Machine Tools, Radio and Signal Supplies, Small Craft and Materials Supply. A brief description of the operations of these directorates follows.

(ii) *Gun Ammunition*. Created in May, 1940, this directorate came into being when arrangements had been made for the creation and supervision of annexes used in producing bombs, fuses, mines, shot and shell. During the year 1945-46 annual capacity was greatly reduced following liquidation and transfer of production units, though some programmes, such as 25-pounder shell, fuses, bright nuts and bolts, etc., were continued. When production in annexes ceased, plant and installations were released in a rapid transition from war to peace production.

(iii) *Explosives Supply*. The objectives of this directorate were the manufacture of high explosives, and the filling of ammunition and pyrotechnic stores for the fighting services.

During 1945-46 the war-time production programme tapered off rapidly. The peacetime production of ammonium sulphate, methanol, etc., was being proceeded with, the necessary additions being undertaken at existing plants.

(iv) *Ordnance Production*. This directorate's function was to create and maintain production of various types of equipment for the fighting forces. The falling away in production is illustrated by the fact that, whereas at the beginning of July, 1945 the programme consisted of 195 active projects (value £6,500,000), in June, 1946 only 27 of these projects remained, the value being less than £200,000.

(v) *Machine Tools and Associated Equipment*. This directorate controlled production, reconditioning and disposal of machine tools, ball-bearings, electrical equipment, hand tools, etc. Up to 30th June, 1946, 24,214 machine tools were issued to the fighting services; 1,380 to other governments; 12,655 to Commonwealth departments other than that of Munitions; 54,422 to the Department of Munitions; and 436 to Technical Schools. Deliveries within Australia totalled 2,596. Machines sold to Australian firms and others numbered 13,025, valued at £3,455,149; 12,588 were sold at disposal sales.

(vi) *Radio and Signal Supplies*. The function of this directorate was to organize and control production in commercial industry of radar equipment, radio frequency communication equipment, and non-radio signal equipment, for the Services.

At the end of June, 1945 the Directorate still had 151 projects in hand. Undelivered equipment at that time totalled £5,868,000, and deliveries were being made at the rate of £400,000 worth of equipment per month, with about £250,000 worth of orders being received monthly.



At the end of the war, about £5,500,000 worth of electronic equipment was still on order. Arrangements were put in hand to proceed with the production of civilian radios in anticipation of the changing over of radio firms from defence to civil production.

The total value of equipment delivered to the Services to 30th June, 1946 was £17,500,000.

(vii) *Small Craft Construction.* Following the end of the war in the Pacific, many orders which had been received from the Royal Australian Navy, the Australian Army, and United States of America authorities were cancelled. A summary of production as at 30th September, 1945 showed that 1,823 powered and 4,165 non-powered vessels had been completed and handed over, with 29,366 miscellaneous craft. By 30th June, 1946 the only outstanding Service orders were—for the Australian Army, 10 craft (9 complete); Royal Australian Navy, 27 craft (3 complete); Royal Australian Air Force, 2 craft; Royal Navy, 2 craft; and Netherlands East Indies, 6 craft (5 complete).

(viii) *Materials Supply.* The primary function of this directorate was the bulk purchase and distribution of reserves of materials required by munitions factories and annexes for production. Under the Control of Essential Materials Order about 600 items, including iron and steel, non-ferrous metals and chemicals were under control. Following the end of hostilities, controls on solder, horse-shoe and chain manufacture and collapsible tubes were revoked in September, 1945. Sales in July and August, 1945 of surplus materials such as copper wire bars, glycerine, zinc, soda nitrate, antimony, tin, zinc oxide, tallow, and aluminium powder amounted to £3,898,099. The directorate closed down on 7th November, 1945. Sales during the last month of its activity totalled £74,000.

10. *Liquidations.*—The total cost of surplus munitions property disposed of during the twelve months ended 30th June, 1946 was £19,000,000. The value of the balance of declared property for disposal at cost at 30th June, 1946 was £20,500,000.

11. *Directorate of Stores and Transport.*—This directorate's functions during the war included the warehousing of munitions materials and products, and their transport by rail, road or sea, as well as the storage and transport of materials and products for other departments. When the war ended, the Department of Munitions occupied 4½ million square feet of storage space, of which 3½ million square feet was Government-owned and 1 million held under tenancy. By 30th June, 1946, 550,000 square feet of the latter had been vacated and returned to the owners.

12. *Finance and Accounts.*—(i) *General.* During 1945-46 practically all the energies of the Branch were devoted to winding-up war-time operations. These activities included:—(a) the settlement of claims by contractors; (b) termination of war-time agreements; (c) securing repayment of loans to contractors for war purposes; (d) closing down of annexes and consequent adjustment of advance accounts.

(ii) *Expenditure.* (a) *Summary.* In the table following the total expenditure incurred on account of munitions in 1945-46 is compared with the previous year:—

MUNITIONS : TOTAL EXPENDITURE.

Particulars.	1944-45.	1945-46.
	£'000.	£'000.
Parliamentary Appropriations (including Reciprocal Lend-Lease) and Lend-Lease .. .. .	25,620	23,656
Trust Fund Accounts .. .. .	83,083	46,059
Munitions Department for other Administrations .. .. .	2,851	3,924
<b>Total .. .. .</b>	<b>111,554</b>	<b>73,639</b>

Details of expenditure under Parliamentary Appropriations may be found in § 6, Chapter XV.—“Public Finance”.

(b) *Trust Funds.* The table hereunder shows the comparison between expenditure from the various Munitions Trust Funds during the years 1944-45 and 1945-46 :—

## MUNITIONS : TRUST FUND EXPENDITURE.

Fund.	1944-45.	1945-46.
	£'000.	£'000.
Government Munitions Factories and Establishments ..	20,501	14,245
Manufacture of Munitions .. .. .	53,831	27,064
Machine Tools .. .. .	2,675	1,019
Materials .. .. .	6,074	3,708
Aluminium Production .. .. .	2	23
Total .. .. .	83,083	46,059

13. **Australian Aluminium Production Commission.**—Basic plans for the manufacture of aluminium ingot in Australia, as a defence measure designed to make this country independent of overseas supplies, were approved by the Commonwealth Government in April, 1941. In April, 1944 an agreement was made between the Commonwealth and Tasmanian Governments for the establishment of the industry in Tasmania, cheap power being available from the hydro-electric resources of that State. Covering legislation was introduced, and received Royal Assent on 7th December, 1944. The Australian Aluminium Production Commission was constituted on 1st May, 1945; it consists of two representatives and two deputies acting for the Commonwealth, and an equal number of representatives and deputies for Tasmania.

Workable deposits of bauxite (aluminium ore) exist in Victoria, New South Wales and Tasmania, the highest grade deposits being located in the Boolarra-Mirboo North district of Victoria. Deposits also exist in Queensland and Western Australia.

Analysis of Tasmanian and Victorian bauxite samples sent to New York for testing has demonstrated that it is possible to establish an Australian aluminium production industry on a sound and practical basis. Finance for the undertaking is provided by a fund to which contributions on a £1 for £1 basis are made by the Commonwealth and Tasmanian Governments.

## § 10. Aircraft Production.

1. **General.**—An account of aircraft production activities during the 1939-45 War and up to the year 1945-46 appears in Official Year Book No. 36, pp.1063-1073. In this issue activities during 1946-47 are dealt with.

From 1st July to 31st October, 1946 all Commonwealth Government functions in regard to the manufacture of fighter, bomber and trainer aircraft and of aero engines and of other aircraft components required for Royal Australian Air Force purposes were administered by the Department of Aircraft Production. Aircraft repair and overhaul activities carried out for the R.A.A.F. in civilian establishments, as distinct from the Service workshops conducted by the R.A.A.F., were also a function of the Department of Aircraft Production, together with the responsibility of supplying aircraft and engine spare parts.

As from 1st November, 1946 the activities of the Department of Aircraft Production and those of the Department of Munitions were amalgamated and the aircraft production and repair and overhaul activities were conducted by the Division of Aircraft Production of the Department of Munitions.\*

**2. New Aircraft Projects.**—On 23rd August, 1946 Cabinet approved the production in Australia of jet-propelled fighter aircraft to introduce into the R.A.A.F. the most modern types of operational aircraft. The project was based upon (a) the manufacture by the Commonwealth Aircraft Corporation of 60 Rolls-Royce "Nene" turbo-jet engines, plus spares; and (b) the manufacture by De Havilland Aircraft Pty. Ltd. of 50 De Havilland "Vampire" jet-propelled fighter aircraft, plus spares, including the installation in the aircraft of Nene engines as manufactured by the Commonwealth Aircraft Corporation.

In approving these projects, Cabinet was influenced by the necessity (a) to commence the replacement of reciprocating-engined aircraft with the modern turbine-jet types in order to keep the R.A.A.F. up to date; (b) to provide a programme to assist in maintaining in work two of the major aircraft production units retained in accordance with the National Defence Policy of having available at all times a nucleus of aircraft manufacturing capacity whose output could be rapidly expanded in an emergency; (c) to establish and maintain potential capacity for the manufacture and development of the latest types of jet-propelled aircraft; and (d) to give practical effect to the decision to equip the R.A.A.F., for strategic reasons, with aircraft and engine types which were also standard equipment for the Royal Air Force.

The gas-turbine engine was developed during the years immediately prior to and following the outbreak of the 1939-45 War and was brought into operational use by both the Germans and the Allied Forces before the war in Europe ended. It was recognized as being a revolutionary new type of prime mover that was expected quickly to become standard equipment for fighter types of aircraft and eventually to supersede the piston type engine for all high speed operational aircraft. Its production introduced new workshop techniques and new alloy materials which were unknown to Australian industry. Consequently a strong team of engineers and workshops technicians from the Commonwealth Aircraft Corporation's factory was sent to the United Kingdom early in 1946 to make a detailed study of the production equipment and manufacturing processes used in the Rolls-Royce Company's Nene engine factory in order to supervise the introduction of the new project into the Australian workshop on their return. The Vampire aircraft is a single-engined, single-seated fighter with maximum continuous level speed of approximately 550 miles an hour, operational service ceiling of 40,000 feet, and economical cruising range of 1,000 miles.

**3. Aircraft, Engine and Other Production.**—Aircraft manufactured during 1946-47 comprised thirteen Lincoln four-engined heavy bombers from the Government Aircraft Factories, thirteen Mosquito fighter-bomber aircraft by De Havilland Aircraft Pty. Ltd. and four Mustang fighters and one Wirraway advanced trainer by the Commonwealth Aircraft Corporation. The Tudor project, which had been developed by the Government aircraft factories on the basis of production of twelve military transport aircraft, was restricted during the year to not more than two aircraft.

Production of Rolls-Royce Merlin engines continued at the Aircraft Engine Factory conducted at Lidcombe, New South Wales, by the Commonwealth Aircraft Corporation for the Commonwealth. These engines are required for installation in Lincoln aircraft but, because the rate of production of that type of aircraft had been restricted to a minimum to meet R.A.A.F. requirements, the Merlin engine production programme has also been retarded and the only engine completed during 1946-47 was one required by the Government Aircraft Factories for engineering purposes.

During 1946-47 annexes established during the war for the manufacture of propellers, retractable undercarriages and heavy forgings in light alloy metals continued in operation as part of the nucleus of aircraft manufacturing capacity retained for policy reasons.

\* As from the beginning of April, 1948 the Supply functions of the Department of Supply and Shipping were also amalgamated with the functions of the Department of Munitions and the Division of Aircraft Production became a section of the Department of Supply and Development.

The following table shows the numbers of the various types of aircraft and engines produced during the years 1939-40 to 1946-47.

AIRCRAFT AND ENGINES : PRODUCTION, AUSTRALIA.

Type.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.	1944-45.	1945-46.	1946-47.
<b>AIRCRAFT.</b>								
Beaufort .. .. .	..	..	76	285	312	27	..	..
Beaufighter .. .. .	..	..	..	..	3	281	50	..
Lincoln .. .. .	..	..	..	..	..	..	1	13
Wirraway .. .. .	75	225	320	..	30	60	46	1
Wackett Trainer .. .. .	..	13	187	..	..	..	..	..
Boomerang .. .. .	..	..	..	105	103	42	..	..
Mustang .. .. .	..	..	..	..	..	4	73	4
Tiger Moth .. .. .	8	453	508	66	..	35	..	..
DH. Dragon .. .. .	..	..	..	87	..	..	..	..
Mosquito .. .. .	..	..	..	..	6	80	91	13
Gliders .. .. .	..	..	..	6	2	..	..	..
<b>Total .. .. .</b>	<b>83</b>	<b>691</b>	<b>1,091</b>	<b>549</b>	<b>456</b>	<b>529</b>	<b>291</b>	<b>31</b>
<b>ENGINES.</b>								
Twin-row Wasp .. .. .	..	..	66	231	343	228	2	..
Single-row Wasp .. .. .	76	195	291	86	32	..	..	..
Gipsy Major .. .. .	..	319	318	461	202	..	..	..
Rolls-Royce " Merlin " .. .. .	..	..	..	..	..	..	..	1
<b>Total .. .. .</b>	<b>76</b>	<b>514</b>	<b>675</b>	<b>778</b>	<b>577</b>	<b>228</b>	<b>2</b>	<b>1</b>

Of the total aircraft produced (3,721), 43 per cent. were operational type and 57 per cent. trainer type. Government aircraft factories produced 67 per cent. of the operational aircraft, the Commonwealth Aircraft Corporation Pty. Ltd. 21 per cent. and the De Havilland Aircraft Pty. Ltd. 12 per cent. The last two organizations shared the whole of the trainer production, 45 per cent. and 55 per cent. respectively.

4. **Repair and Overhaul.**—It is the policy of the R.A.A.F. as far as practicable to return aircraft and aero engines requiring major overhaul to the aircraft and engine manufacturing establishments in which they were produced. Certain other R.A.A.F. aircraft and engine repair and overhaul is also allotted to civilian contractors for policy purposes instead of being undertaken in the R.A.A.F. workshops. Under this arrangement R.A.A.F. Dakota transport aircraft were repaired and overhauled in workshops conducted by the Division of Aircraft Production at Parafield, South Australia, and Lincoln heavy bomber aircraft at the Government Aircraft Factories at Fishermen's Bend. Twin-row Wasp engines are allotted for overhaul to the Commonwealth Aircraft Corporation's factory at Fishermen's Bend and Rolls-Royce Merlin engines are handled by the same company at the Lidcombe engine factory. During 1946-47, under an arrangement with the Royal Air Force Head-quarters at Singapore, twin-row Wasp engines commenced to arrive in Australia for overhaul at the Commonwealth Aircraft Corporation's plant at Fishermen's Bend.

5. **Beaufort Housing Project.**—When hostilities ceased in 1945, War Cabinet directed that surplus capacity becoming available in Munitions and Aircraft Production establishments could be used to relieve the acute housing position, if practicable. To this end, the Department of Aircraft Production had collaborated with the Department of Works and Housing and with the Victorian Housing Commission in the design of a prefabricated steel house which could be manufactured on factory mass production lines in the Government Aircraft Factories. A prototype of the house, erected in Melbourne in June, 1946 for public inspection, was very favourably received, but the Victorian Government refrained from placing an order for the large-scale production of the houses until the prospective availability of light gauge sheet steel (then in extremely short supply), as required for the walls and roof panels of the house, had been thoroughly examined.

During February, 1947, however, an order for 5,000 Beaufort houses at a cost of £1,050 each—covering production and assembly on site but not site works (roads, paths, etc.) or land purchase—was placed on the Commonwealth by the Victorian Government through the Victorian Housing Commission. Acceptance of the order was approved by Cabinet during the same month and concurrently Cabinet approved the extension of the project to cover the production and erection of 5,500 houses for the War Service Homes Division of the Department of Works and Housing, at a cost of £1,100 each. These houses included certain refinements not provided for in the Victorian Housing Commission order, but essentially the houses were the same.

The establishment of facilities for the quantity production of the Beaufort house was immediately commenced, together with the procurement of supplies of raw materials and fittings and the manufacture of tooling. The project was being steadily developed, but the decision of the Victorian Government in January, 1948 to cancel the order for houses for the Victorian Housing Commission and to discontinue supplies of light gauge steel sheet to the Government Aircraft Factories for house construction brought about the abandonment of the whole project as from the completion of 85 houses, for which arrangements were already in hand.

**6. Australian Shipbuilding Board—(i) General.** The Australian Shipbuilding Board was created on 26th March, 1941. The Board, which was directly responsible to the Minister and Director-General of Munitions, consisted of a Chairman, the Director of Shipbuilding, a person appointed on the nomination of the Naval Board, a public accountant known as the Finance Member, a person representative of the employees, and any other person considered necessary by the Minister.

Following an exhaustive survey made in order to select from existing shipyards those deemed most suitable for the Board's projected operations, the Government decided to provide financial assistance to the undermentioned contractors to enable them to expand their facilities to the required extent:—Mort's Dock and Engineering Co. Ltd., Sydney; Melbourne Harbour Trust Commissioners, Williamstown (now H.M.A. Naval Dockyard); and Evans Deakin & Co. Ltd., Brisbane. Facilities were also provided at Cockatoo Island, Sydney—which is Commonwealth property leased to the Cockatoo Docks & Engineering Co. Pty. Ltd. The Broken Hill Pty. Co. Ltd. shipyard at Whyalla, South Australia, was built at the Company's own expense. Arrangements were made between the Commonwealth and the State for expansion of the facilities at the New South Wales Government Engineering and Shipbuilding Undertaking, Newcastle.

(ii) *Construction Programme.* The original scheme was to undertake a long-range building programme covering the construction of 60 "A" class 9,000-ton standard merchant ships to be launched at the rate of twelve ships per annum, but the outbreak of war with Japan, and the consequent unprecedented volume of ship repair work which followed, rendered this impracticable.

It was finally decided to construct 13 "A" class 9,000-ton standard merchant ships, 10 "B" class 6,000-ton freighters, 10 "C" class 4,000-ton freighters, 10 "D" class 2,500-ton freighters, 10 "E" class 550-ton freighters, 32 300-ton wooden merchant ships, 3 "A" type ocean-going tugs, 3 "B" type harbour tugs, and a 1,000-ton steel floating dock.

At 30th June, 1946 the following portion of this programme had been completed—twelve "A" class vessels were finished and in service, and early completion of the thirteenth was expected; the frame of the first of the "B" class vessels was half finished, and prefabrication of the second was well advanced; design work of the "C" class ships was still in progress; three "D" class freighters had been put into service, three were within a month of launching, and work was going forward on two; more hull construction of "E" class ships was proceeding; two 300-ton wooden cargo vessels had been partly completed; and early handing over of the 1,000-ton floating dock was anticipated. The tug programme has been cancelled.

(iii) *Ship Repair Facilities.* This important phase of activity in the shipyards of the Commonwealth is well provided for in the following dry docks, which are capable of taking large merchant ships:—Cockatoo Docks, Sutherland, Fitzroy, Woolwich and Balmain Dry Docks—all in Sydney; Mort's Dock, Sydney; Newcastle Floating Dock; H.M.A. Naval Dockyard and Alfred Graving Dock, Williamstown; and Duke & Orr's Dry Docks, Melbourne.

From August, 1942 to 15th March, 1946, 12,160 Australian and Allied merchant ships of a total tonnage of 53,079,182 underwent repair and/or maintenance, while 1,869 merchant ships, totalling 6,464,211 tons, were dry-docked or slipped. During the same period an equal volume of Naval and other Service vessels also received attention.

### § 11. Expenditure on Defence.

Details of expenditure on Defence, War (1939-45) Services and Post-war Charges will be found in Chapter XV.—“Public Finance,” A.—Commonwealth Finance, § 6, pp. 653-5.

### § 12. War Gratuities.

1. **1914-18 War.**—Reference is made in earlier issues of the Official Year Book (*see* No. 15, p. 930) to the bonus payable in accordance with the War Gratuity Acts of 1920 as a war service gratuity to soldiers and sailors who served in the 1914-18 War. Owing to limitations of space this information cannot be repeated, but it may be noted that the gratuity was paid in Treasury Bonds, maturing not later than 31st May, 1924, and bearing interest at 5½ per cent. In necessitous cases payment was made in cash when desired by the person entitled. The first gratuities were made available about the beginning of June, 1920. The total amount paid to 30th June, 1948 was £27,515,036 and bonds amounting to £11,790 had not been redeemed at that date.

2. **1939-45 War.**—Briefly, the War Gratuity Act 1945-47 provides for payment to members of the Forces of war gratuity (a) at the rate of £3 15s. per month of oversea service, subject to a qualifying period of 90 days continuous or 180 days in the aggregate in twelve months, and of certain subsequent periods in Australia, and (b) at the rate of 15s. per month of Australian service after 6th December, 1941, subject to a qualifying period of six months' service, other than that for which payment at the oversea rate is made. All members who perform oversea qualifying service will be paid a minimum of twelve months' gratuity at the oversea rate, irrespective of whether the full twelve months period had been completed or not.

In cases of death due to war service either overseas or in Australia, where members of the family were totally dependent on the deceased member, a minimum payment equivalent to three years' gratuity calculated at the oversea gratuity rate may be made. In respect of all other cases of death, overseas and in Australia, due to war service, gratuity at the rate accruing to the member at the date of notification of his death will be continued for a further seven months.

The period of entitlement to gratuity terminated at the date of discharge or on 30th June, 1947, whichever was the earlier. Payment will be made on 3rd March, 1951, or at earlier dates in certain circumstances, and will include compound interest at the rate of 3.25 per cent. per annum on the yearly credit balances. For greater detail on the provisions of the Act *see* Official Year Book No. 36, pp. 1073-4.

A Registrar of War Gratuities controls the register in which are kept the accounts of all persons entitled to war gratuity. The total liability on account of war gratuity is estimated to be about £80,000,000. Expenditure during the years 1945-46, 1946-47 and 1947-48 was, respectively, £143,285, £2,881,932 and £3,360,402. Provision is made for financing the Act by appropriation from Consolidated Revenue Fund and by borrowing. The War Gratuity Appropriation Act 1948 created a trust account for the payment of gratuities and, from credits of the Import Procurement Suspense, Marine War Risks Insurance, Overseas Shipping and War Damage Fund Trust Accounts, amounts totalling £17,000,000 in all were made available for that purpose during 1948-49. The total expenditure on war gratuities estimated for 1948-49 was £26,000,000.