# AUSTRALIAN ARMY JOURNAL



NO. 92
JANUARY
1957

*Notified in AAOs for 31st January, 1957.*



MILITARY BOARD

Army Headquarters
Melbourne
*1/1/57*

Issued by Command of the Military Board

A D W Knight

*Distribution:*

The Journal is issued through RAAOC Stationery Depots on the scale of One per Officer, Officer of Cadets, and Cadet Under Officer.

# AUSTRALIAN ARMY JOURNAL

*A Periodical Review of Military Literature*

Number 92 January, 1957

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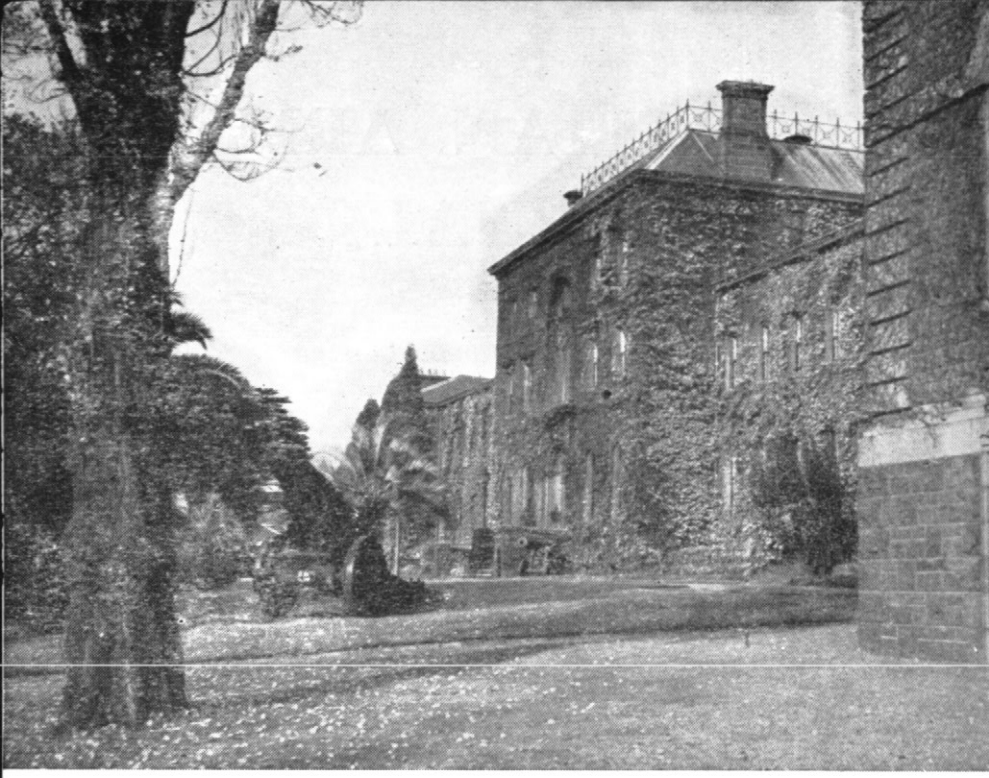

VICTORIA BARRACKS, MELBOURNE

# AUSTRALIAN ARMY JOURNAL

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Contributions, which should be addressed to the Director of Military Training, Army Headquarters, Melbourne, are invited from all ranks of the Army, Cadet Corps and Reserve of Officers. £5 will be paid to the author of the best article published each month, and £40 to the author of the best article published during the year.


# THE SCHOOL OF ARTILLERY

Lieutenant-Colonel A. D. Watt

Royal Australian Artillery

**Introduction**

IN 1885—the year which saw in Australia the establishment of the First Federal Council and the departure of the Soudan contingent from New South Wales — a School of Gunnery, the forerunner of the present School of Artillery, was started near Sydney.

Unfortunately no actual School records exist (except a few photographs) covering either the first eight years of the School's existence or the period 1911-1921. For some of the remaining years School records are quite detailed, but for the most part they are extremely meagre. In Eastern Command, Army files up to 1923 are practically non-existent, and most of those relating to the School from 1923 to the end of the Second World War have been destroyed. At AHQ the majority of files up to the early twenties which might have been useful have also been destroyed.

Most of the information concerning the pre-Federation years has been obtained by research at the Mitchell Library, Sydney, and the writer acknowledges his thanks to the Library for being permitted access to the Colonial Secretary's Correspondence, Votes and Proceedings of the Legislative Assembly of New South Wales, the Parkes Papers and other historical records; also for the assistance given by the Library staff.

The early years of the School's existence are discussed in some detail, as they are the years about

which least was known and concerning which it is most important that the essential facts should be recorded without further delay.

The aim has been to produce a factual record of the School's existence rather than a collection of personal recollections and reminiscences which, whilst they might have added interest, might not have been strictly in accordance with the facts. It is hoped, however, that such material will be forthcoming from old gunners to be included in a later and fuller history.

**The Background**

When the last Imperial troops sailed from N.S.W. in 1870, the Colony was left with guns and ammunition but with no trained troops to use them. What was worse, the Colony was left without any instructors who could train the existing handful of volunteers or the volunteer and permanent artillery troops which were raised later on.

This problem was to plague the N.S.W. Defence Force and the defence forces of the other Colonies for the next decade or two. The various Forces could never be effective until the troops and especially the officers could receive proper training.

Aspiring young officers had not the opportunity to acquire knowledge from up-to-date and properly trained instructors. Their military education was left largely to themselves. They studied drills and such other manuals as were available in order to pass examinations and, when finance permitted the holding of an Annual Camp, they were able to attend and gain some practical experience.

In 1881 a Royal Commission was set up to inquire into the Military Defences of N.S.W. Discussing the question of the promotion and appointment of Permanent Artillery Officers the Commission stated:—

"As to the education of these officers, the Committee are unanimous in recommending that a School for instruction with the necessary instructors be formed, in order that officers may attain a defined standard of military knowledge."[1]

If the Commission's recommendation was to be implemented, it was clear that either Imperial instructors should be brought to Australia or that local officers should be sent to the United Kingdom for training as instructors.

Some of the Colonies lost no time in getting military instructors out from England, but N.S.W. lagged behind badly. This was due, undoubtedly, to the attitude of the Commandant, Colonel J. S. Richardson, who, whilst keen to offer inducements to get Imperial officers to resign their commissions and join the local force, was not prepared to have them out on loan.[2]

On the other hand, Colonel C. F. Roberts, who commanded the Artillery of the Force, was strongly in favour of getting RA officers out as soon as possible.

Eventually, in June 1885 the first Imperial officers arrived in N.S.W. as Military Instructors. Three were Royal Artillery and one Royal Engineers. The RA Instructors were

1. Report of the Royal Commission inquiring into the Military Forces of NSW—1881, page 67 (i) 1.
2. Report of Royal Commission of 1881, page 101, para 258.

Maj E. G. H. Bingham, Capt W. St. P. Bunbury and Lt C. M. Milward.

How these officers came to be bought to the Colony in view of the Commandant's attitude is delightfully told by Capt (later Lt-Col) Bunbury, who helped to start the School. Writing fifty years later, he says:—

"It was Colonel Roberts' desire to have out from home a few regular Artillery officers to take temporary command of the batteries and to instruct the officers and men in their duties. (Victoria, South Australia and Queensland already had some Imperial officers with them.) Richardson would have none of this and was able to defeat all Roberts' endeavours to that end. Then came the episode of the Soudan Contingent, of which Richardson went in command. Roberts saw his chance, and prevailed on the N.S.W. Government to ask the War Office for the services of four officers as stated. He expected to have them duly installed in their commands and to confront Richardson on his return with the fait accompli. Unfortunately for his scheme, the Soudan show fizzled out, the contingent returned, and reached Sydney a fortnight before we did. It was then too late for Richardson to stop us, but his counter move was masterly. Immediately on our arrival he appointed us all to his personal staff.

"So for some months, in spite of Bingham's expostulations, we did nothing for the Artillery or Engineers, but rode about in full dress in Richardson's train whenever, which was often, he made an inspection or 'reviewed' some portion of his command.

"This sort of thing could not continue, so finally Bingham took matters into his own hands, got some important members of the Legislative Council to bring the matter up in their House, and himself threatened to write to the War Office a full statement of the case and request that we should be withdrawn. The Sydney "Bulletin" took a hand, and whilst expressing the greatest admiration for the beauty of our uniforms, suggested that the display was a rather expensive one for the Colony.

"This brought matters to a head, and the Premier (still, I think, Mr. Dalley) took us away from both Richardson and Roberts and placed us directly under the Colonial Secretary, from whom we from that time received every support. Then we were able to get a move on."[3]

That this is a reliable account is confirmed by some remarks made by Colonel Richardson himself in 1889. Speaking of the School of Gunnery, he said: " . . . It may be mentioned that to Colonel Roberts is due the credit for this educational advance; for it was during my absence on active service in Egypt that he induced the Government of the day to secure the services of four Imperial officers as instructors."[4]

The three RA officers had all passed with distinction through

3. Letter written by Lt-Col W. St. P. Bunbury on 22 May 34 to Maj J. S. Whitelaw on "The Beginnings of the School of Gunnery."
4. Journal of the United Services Institute of NSW—(1889)—Inaugural Address by Col Richardson.

Shoeburyness and Woolwich, and Bingham and Bunbury had also been instructors at Woolwich. They were to serve the Colony in general, and the gunners in particular, very well indeed.

### The Beginnings

The School of Gunnery was started at Middle Head towards the end of 1885—the exact date is not known. The earliest record headed "School of Gunnery, Middle Head," refers to a stationery requisition submitted on 27 Aug 86.[5] However, the School probably started several months earlier, as, although there is no actual record of any courses being run in 1885, during 1886 a hundred and nineteen all ranks passed through courses of 8 to 10 weeks' duration. Assuming that 20-25 students attended each course (which was normal in subsequent years) and that courses were run one at a time (which is probable), it appears that the School probably started to run courses at the beginning of 1886. If so, it is almost certain that some preparatory work had been done in 1885. Colonel Bunbury's letter also indicates that the school was started late in 1885.

Middle Head was probably selected as entailing least expense, since some facilities already existed there. There can be no doubt, however, that had some suitable facilities existed at Victoria Barracks, Colonel Richardson would have had the School there. In fact, during the remainder of his term as Commandant of the Force, he was most persistent in his efforts to get a School of Gunnery established there. This is discussed in detail later on.

Of the beginning of the School, Bunbury writes:—

"I was entrusted with the job of starting a School of Gunnery at Middle Head, Milward was allotted the training of the field batteries (partially paid ones, I think), whilst Bingham exercised general control and was our first line of defence against the Two Rs and the politicians. He had his hands full, but managed admirably.

"The starting of the School was no light job. I found everything in a ludicrously deplorable condition. There had been, I believe, a battery or detachment of the Permanent Artillery stationed at Middle Head in charge of the guns and stores; what else they did I do not know, probably a little gun drill only, for of repository stores there was an almost complete dearth, most of the skidding, etc., required we had to make up locally from gum tree wood, of which nobody could tell us the breaking strain.

"The work done at the School was normal gun drill on the various types of gun in use, and repository drill, dismounting, moving and remounting ordnance, etc., and lectures on gunnery. Practice also when we could get ammunition."

During 1886 four officers, sixteen NCOs and ninety-nine gunners passed through the School. For the first time the gunners of the N.S.W. Defence Force received some up-to-date and proper instruction. Colonel Richardson reported that " . . . these courses of instruction, whilst ensur-

5. Colonial Secretary's Correspondence 1886-8 (Torpedo Defence), letter dated 17.5.87. Held in Mitchell Library.

ing a creditable state of efficiency, have awakened a degree of zeal and interest in the work which was hitherto wanting."[6]

Who was the First Chief Instructor (CI)? Col Bunbury, in his letter, states that he "founded and ran the School of Gunnery at Middle Head," and a photograph of him at the School at North Head is sometimes regarded as being that of the first CI. However, despite the part played by him both in starting the School and during the first few years of its existence—and none could detract from the importance of his contribution—there is little doubt that Colonel Bingham was in fact the first CI. The Army list merely shows the Imperial officers as "Military Instructors"—none is specifically designated "Chief Instructor." But Maj-Gen Richardson in 1889 refers to "a School of Gunnery established under Colonel Bingham."[7] Colonel Spalding, at the Royal Commission of 1892, said that he "had gone through a course at the School (in 1888) under Colonel Bingham RA" and again, that "Colonel Bingham was the Chief Instructor."[8] Finally, the stationery requisition mentioned earlier is signed by Bunbury as "Ag Chief Instructor," whereas a letter referring it for action is signed by Bingham as "Chief Instructor."

Of course the CI's duties were not confined to the School. He also attended inspections and parades of the volunteer artillery and generally instructed them. From May 1888 Bingham (and subsequent CIs) held the additional appointment of Firemaster. Together with the other RA officers, his duties also included "serving on Boards on war-like material of every description, superintendence of drill and firing, serving on Boards of Examination, etc., and in point of fact, being generally useful."[9] Colonel Bunbury writes:

"In addition to the School of Middle Head, I had also a good deal of instructional work and lecturing to do with the partially paid artillery in various places. I was immensely struck with the keenness of all ranks and, considering the deficiencies of equipment and the little interest that seemed to have been taken in them by anybody, the degree of efficiency they had attained was most praiseworthy.

"The fortnight's Easter encampments I look back upon with the greatest pleasure. Bingham entrusted to me the work at South Head, where I had the Partially Paid batteries from Newcastle, Bulli and Wollongong in my charge, whilst he took charge at Middle Head . . ."

The School was fortunate to obtain, in their first year, the services of Sergeant-Major Tristam, RA, who had been Sergeant-Major Instructor at the School of Gunnery, Shoeburyness. He was an exceptionally fine instructor, and rendered excellent service at the School until his death ten years later. He was the first of a long line of Assistant Instructors in Gunnery

6. Notes and proceedings of the Legislative Assembly (Second Session), 1887—Annual Report of NSW Defence Forces for 1886.
7. Journal of the United Services Institute of NSW—(1889)—Inaugural Address by Col Richardson.
8. Report of the Royal Commission into the NSW Military Forces (1892), page 46, replies 1619 and 1623.
9. Annual Report of NSW Defence Force for 1887.

(AIGs) who have served with distinction at the School. Sgts Lynch and Molyneaux were Sgt Instructors during the very early years of the School's existence.

In 1887 five officers and seventy-one men passed through the School, and by the end of 1889 a total of 281 all ranks, including every officer but one, had attended a course. This seems remarkable today considering that the strength of the Permanent Artillery in 1887 was only 371 and in 1888 only 422. Yet there appears to have been little complacency about officer training in the Force. In his Inaugural Address at the opening of the USI in NSW in 1889, Major-General Richardson, referring to the recommendations of the 1881 Royal Commission, said:—

"It may be asked what has been done since 1881 towards carrying out these valuable suggestions of the Commission. I can only reply, next to nothing. It is true, however, that a so-called School of Gunnery under Colonel Bingham RA has been established. I say so-called, not by way of reflection, but because building, appliances and conveniences are incomplete and insufficient. The money required for the erection of a suitable building has been voted more than once, but the work cannot be proceeded with until it is decided whether the Headquarters of the Artillery shall be at the Victoria Barracks, or be transferred to Middle Head, as recommended by General Schaw. Excellent work had been carried on at the School notwithstanding the disabilities I have referred to."[10]

On completion of their terms in May 1888, Bunbury and Milward returned to England. On grounds of economy they were not replaced. It is interesting to note that Bingham was receiving £1104 p.a. (including allowances), which in addition to being a very handsome salary in those days was actually £184 p.a. more than the Commandant of the Force received.[11]

Bingham continued as Chief Instructor until November 1889, when he returned to England to become Instructor in Gunnery at Shoeburyness. He was held in the highest esteem in the Colony. Of him Maj-Gen Richardson said:—

"Colonel Bingham may be assured that he has made his mark in the Colony. Those conversant with his labours, and especially those who have had the benefit of his instruction, will recognize his high qualifications as an English gentleman and officer and the happy and judicious application of these qualities in his daily association with the forces . . ."

Colonel Bingham was replaced by Major W. S. Churchward, RA, who had come to the Colony as a Military Instructor in April 1889. In 1891 the Army List showed Maj Churchward as "Chief Instructor and Firemaster," and from this time on Chief Instructors were specifically designated as such in the Army Lists.

Like his predecessor, his duties were many and varied. In addition to running courses at the

10. Journal of the United Service Institute of NSW—(1889)—Inaugural Address by Col Richardson.

11. NSW Parliamentary Debates, Session 1885-6, Vol XXIII, Page 5302.

School of Gunnery, he supervised drills of the field batteries at Victoria Barracks, instructed the garrison companies, taught tactics and conducted war game studies at the USI. His activities also included "Riding-school and sword exercises, range and position finding to Permanent Artillery and staff instructors, courses on examination of ordnance, incorporation of powder, making up cartridges, and filling shells, incorporation of all pebble powder and charges made up to complete the equipment of all magazines, examination and taking impressions of bores of all heavy guns and Permanent Field Battery guns, testing small ammunition, fuzes, tubes, etc., and making up Nordenfelt ammunition and the erection of the necessary machinery for the same."[12] That Major Churchward was able to carry out all these tasks satisfactorily testifies to his energy and versatility.

Annual "Long Courses" of four to six months' duration had been instituted in 1887 under Colonel Bingham and continued under Major Churchward. Shorter courses were also run for the Partially Paid Artillery.

Major Churchward's tour was extended by a year, and he left the Colony (now Lt-Col) in February 1893 to become OC Artillery in Bermuda.

Thus the School ended the first phase of its existence, owing—as, indeed, did the Force as a whole—a great deal to the Royal Artillery officers who had served it so well for seven years.

12. Annual Report of NSW Defence Force for 1891.

### At Victoria Barracks

Maj-Gen Richardson had never been satisfied about the School of Gunnery being located at Middle Head, as he considered that it was not central enough. As early as 1886 he had recommended that "a properly constructed building should be erected at the Victoria Barracks for the convenience not only of the Permanent Artillery but also of the Volunteer and Reserve Artillery." He went on to offer the opinion that "until a School of Gunnery in a central position is erected, it is foolish to expect the Volunteer Artillery to be properly trained. As a matter of fact, officers and others engaged in civil occupations cannot give the necessary attendance, unless they have special facilities such as would be found in the School above noted, and without which, I moreover consider, the services of the Imperial instructors are, in a great measure, thrown away."[13]

In 1887 Maj-Gen Schaw, CB, in his "Report on Defence of N.S.W.," had pointed out that it would be advantageous to have the "Artillery Barracks and Headquarters with the School of Gunnery established at Middle Head." However, the Government could not make up its mind on this matter, and hence there was considerable argument as to just how much work should be put into the erection of buildings for the School already started at Middle Head.

An amount of £1600 had been voted in 1887 for additional work on the School of Gunnery at Middle Head. This was to be spent mainly

13. Annual Report of NSW Defence Force for 1886.

on a drill shed, which was to be additional to a shed then being erected "for the storage of new armament." Bingham was of the opinion that the latter shed would suffice also for instructional work, and he and Roberts considered that as General Schaw's report indicated that the location of the School was to depend on the location of the Artillery Barracks, that no further expenditure should be incurred at Middle Head until a decision was made in this matter. It was finally recommended in December 1887 that £1000 of the £1600 be expended in "the purchase of fittings for sheds now in the course of construction at Middle Head, together with instruments, books, etc., necessary for instruction, and that the remaining £600 be sanctioned to be appropriated for the erection of a building as a Library and Lecture Room at the Victoria Barracks."[14]

It was probably due in part to this lack of decision as to where the Artillery Barracks were to be erected, that Maj-Gen Richardson pressed persistently for the establishment of a School of Gunnery at Victoria Barracks, where most of the gunners were in fact stationed.

In February 1890 an application was made for "the erection of a School of Gunnery at Victoria Barracks at a cost of £2400. . . . It is proposed to erect the School on the site of the present drill battery at Victoria Barracks. . . . The necessary facilities will thereby be afforded both the Permanent and Volunteer Artillery for learning their drills without the expense and loss of time in proceeding to the heads."[15]

It must have given the General some satisfaction to report, in 1891, that "the School of Gunnery at Victoria Barracks has been constructed by the Director of the Military Works Department. A 6-inch BL gun on Hydro Pneumatic mounting is now ready for instructional purposes. In addition, one 9-inch and one 10-inch RML gun will be mounted there, and there will also be types of each of the machine guns, models of sheers, derricks, gun-pits, bridges, pontoons, sections of projectiles, fuzes, vent sealing and other tubes, electric firing apparatus and combinations of tackles and knots. I will shortly arrange for special instructional night drills and lectures to be given to the Permanent Artillery and Partially Paid Artillery."[16]

The School of Gunnery at Victoria Barracks probably opened in June 1892. It was certainly started whilst the Royal Commission of 1892 was sitting.[17] In all probability this fact acted as a spur to getting the School started. The School consisted of a large timber and iron building which stood just inside the main entrance to Victoria Barracks on what is now the cricket field. The 6-inch gun was mounted inside the building and the 9-inch and 10-inch RMLs beside it.

There is little doubt that the School was especially intended for the instruction of the Partially Paid

14. Colonial Secretary's Correspondence, 87-14200 and 87-2737.

15. Colonial Secretary's Correspondence, 90-1564.
16. Annual Report of NSW Defence Forces for 1891.
17. Report of Royal Commission into the NSW Defence Forces, 1892, page 160-5339.

Artillery, and it certainly was used for that purpose from the start. At the same time, good use was probably made of it by the Permanent Artillery, most of whom at that time lived at Victoria Barracks. This latter fact was noted also by the Commission, which considered that the garrison gunners should be with their guns, and hence recommended that they be quartered at Georges Heights.

This School of Gunnery at Victoria Barracks appears to have functioned officially as such only in 1892 and 1893, although the building continued to be used for drill and instructional purposes—particularly by the Volunteer Artillery —until it was pulled down in 1934. Although it was in later years the AGA Drill Hall, it continued to be referred to for many years by some old Gunners as the School of Gunnery.

Establishment of a School of Gunnery at Victoria Barracks did not mean that the School at Middle Head had ceased to function; far from it. Long Courses continued to be conducted there, and District Gunners were still allotted on Annual Establishments to the "School of Gunnery Shed, Middle Head."

The fact that there appears to have been two Schools of Gunnery functioning at the same time during these few years is not difficult to understand, when it is realised that there had never been a separate establishment for the School of Gunnery. The School at Middle Head probably consisted only of two or three sheds with various equipments, stores, models and a lecture room. Initially the instructors were carried on the establishment of HQ NSW Defence Force as part of the General Staff[18] and from 1894 were on the establishment of the NSW Artillery Regiment (Permanent). District Gunners were permanently allotted for duties at the School, but cooks and other staff were detailed from the Garrison companies as required.

Thus whilst nominally two Schools of Gunnery functioned concurrently the fact of the matter appears to be that the Chief Instructor presided over two separate branches of the School—one at Middle Head and one at Victoria Barracks.

### Other Schools at Victoria Barracks

After 1893 there is an occasional reference in Annual reports of the NSW Defence Force to a "School of Instruction for Field Artillery and for Machinery in connection with Artillery" at Victoria Barracks. In 1895 a "School of Field Artillery and Military Equitation" was formed. The Commandant was Lt-Col H. R. Airey, DSO, who was commanding the Brigade Division Field

18. The fact that the Instructors were part of the General Staff greatly annoyed Colonel Roberts, who wrote to Sir Henry Parkes in Feb 1888 as follows:—
"I much regret to point out that of late my position as Senior Local Artillery Officer has been frequently ignored, the Imperial Artillery Officers having been placed on the General Staff and directions issued to them without consulting me. These officers were originally intended to act as Instructors to the Artillery Forces and were to be under my command, now they are to all intents and purposes placed in a position independent of me."—Parks Papers, Letter from Colonel Roberts, Feb 21/88, Mitchell Library.

19. Annual Report of NSW Defence Force for year 1894, page 3.

Artillery. His AIG was Sergeant-Major Coleman.

It is interesting to note, in connection with the establishment of new Schools of Instruction in 1893-4, that the Brigade Division Field Artillery supplied all the horses and men required for the new Cavalry School of Instruction, and the 1st Garrison Division provided the NCOs and men required for the Infantry School of Instruction.

The School of Field Artillery and Military Equitation ceased to exist as such in 1898, and a School of Cavalry and Military Equitation was instituted with Lt-Col Airey—a gunner—as Commandant.

From this time, although artillery training continued to be carried out at Victoria Barracks for many years, there does not appear to have been an Artillery School of any description formed there subsequently.

### The Bridges Era

One of the first officers to attend a course at the School at Middle Head was Lieutenant W. T. Bridges (later Major-General Sir William Thresby Bridges, KCB, CMG), of whom Colonel Bunbury wrote: "He was an exceptionally able and cultivated man, head and shoulders above anyone else in the NSW Artillery and probably with few superiors anywhere." He had qualified as an Instructor in Gunnery at the Long Course in 1889, and in Oct 1890 went to England, where he gained high distinction in courses at Shoeburyness and Woolwich.

He returned in February 1893 and was appointed CI and Firemaster, an appointment which he was to hold until March 1902. He took over from Captain H. Le Meseurier, who had been in charge of the School since the departure of Maj Churchward.

In 1893-94, following the general reorganization of the Force under Maj-Gen Hutton, the training of Officers and NCOs was put on a sound basis by the institution of a number of Schools of Instruction, each under a Commandant. As a result, Maj Bridges became Commandant and Chief Instructor of the School of Gunnery (as well as Firemaster).

### Move to South Head

Maj Bridges had recommended that the 1894 Long Course be conducted at South Head because of the better facilities for instruction there. He was prepared to make temporary arrangements for housing the stores and for a lecture room. His recommendation was not agreed to and the course was, as usual, based on Middle Head. However, because there was no suitable battery at Middle Head, the practical instruction in Coast Defence and in mounting and dismounting heavy ordnance was carried out at South Head, the men crossing daily in the guard boat.

However, in June 1894 Maj-Gen Hutton wrote to the Colonial Secretary as follows:—

"The present buildings now existing for the use of the School of Gunnery at Middle Head are in a rotten and tumbledown condition, and their immediate repair and removal is necessary. As, however, the present buildings, even if repaired, would be inadequate to the modern

requirements of the School of Gunnery, I advocate construction of a new and permanent structure at South Head for the sum of £400.

"The officers and staff employed at the School of Gunnery have hitherto been placed under canvas during courses of instruction, for which they received field allowance. I recommend that hut accommodation should be provided, which will be a saving in wear and tear to camp equipment and will also save the sum of money now annually expended in field allowance, estimated last year at £282. The comfort of the officers concerned will be very materially improved, and the consequent popularity of the courses will be materially increased, a very important matter. The cost of this hut accommodation will be £800.

"I therefore request that authority may be obtained for the expenditure of the sum of £1200 from the Loan Vote 1893, £20,000, for the purpose described, viz., the erection of a School of Gunnery at South Head."[20]

Eventually permission was given to move to South Head, and the first course—a Long Course—was conducted there in 1895. New quarters had been erected for the officers under instruction, but the NCOs lived in tents on the old parade ground. A wooden building obtained from the Engineers was fitted up as a kitchen and another building was erected as a ration store. The Chief Instructor continued to press for huts for the NCOs, but it was not until the 1898 Long Course that huts were provided for them—"to this may be ascribed the fact that there was no sickness caused by cold and wet which has always occurred in previous courses."

The CI's duties as Firemaster made it difficult for him to be in attendance to give instruction each day of a Long Course. Consequently Capt H. Le Meseurier, who had arrived back in Feb 95 from training in England, was appointed Instructor in Gunnery (IG) for the Long Courses in 1895 and 1896. Like the CI he came in daily from Victoria Barracks.

In Dec 1896, as the result of constant pressure by Maj-Gen Hutton, and later Maj-Gen French, to have a Royal Artillery officer out to take command of the NSW Artillery, Lt-Col (later Colonel) S. C. U. Smith, RA, was brought out and appointed to that command for a term of three years. This term was subsequently extended by two years to December 1901. In 1897 he was also designated Commandant, School of Gunnery. Although he was a highly qualified gunner, there is no evidence that he interfered in any way with Maj Bridges, who continued to run the School but whose official designation now reverted to Chief Instructor and Firemaster.

During 1891 Capt A. H. Sandford had been appointed Assistant Instructor for the Long Course whilst continuing "to perform his regimental and sub-district duties as Resident Officer at Middle Head." He subsequently carried out instructional duties from time to time during the next ten years. Captain H. Le Meseurier had also carried

20. Colonial Secretary's Correspondence, 94-9280.

out instructional duties at the School during its first ten years of existence.

In 1897 the Adjutants of the Brigade Division Field Artillery and 1st and 2nd Garrison Divisions Artillery were designated Instructors in Gunnery, School of Gunnery, in addition to their normal duties. Except when abroad for training, Captains H. W. Dangar, H. Le Meseurier and L. H. Kyngdon functioned in this capacity until Federation.

AIGs during the period 1895-1901 were Sgts McNamara, Foy and Cronin and WOs Hiscock and Morris. At this time IGs received 5/- a day extra pay and AIGs 2/6 a day, a system similar to that which still exists in England.

**First Federal Course**

The 1897 Long Course marked a significant military development, anticipating Federation by the inclusion of students from some of the other colonies—one officer and five NCOs from Victoria, two NCOs from Queensland and one NCO from Western Australia. These students had been sent as the result of an invitation by the Commandant of the NSW Force. The 1897 Course had reverted to 6 months instead of the 4 months' courses introduced in 1894.

The 1898 Long Course was again Federal in composition. This course was attached for a week to a Field Artillery camp at National Park, "the object being not to turn them into field gunners but to illustrate the practice and principles of gunnery and to show how the application of principles must vary as circumstances alter."

In Nov 1899 Maj Bridges embarked for the South African war and did not arrive back until Sep 1900. During the period of his absence he is still shown in the Army Lists as CI, but Capt Sandford, who ran the School in his absence, is also shown in the Lists as being CI during 1900 and 1901. That Sandford was, in fact, CI during 1900 is certain, but he certainly was not during 1901, as Bridges, on his return at the end of 1900, immediately resumed his duties as CI of the School and continued in this capacity throughout 1901.

Only one student from another Colony (Tasmania) attended the 1899 Course. There is a suggestion that the lack of students from other colonies was due to jealousy between the colonies. Whatever the real cause, no students from other colonies attended courses until after Federation. In fact, there do not appear to have been any Long Courses in the years 1901-2-3. This was no doubt due to the absence of a good many permanent gunners in South Africa and the reorganization which followed Federation.

In March 1902 Maj Bridges ended his tour as CI of the School, having served in that capacity for nine years. Highly qualified technically, clear-thinking and held in the highest regard by his superiors, he did much to enhance the pestige of the School and to establish it as an essential and valuable means of raising the standard of the Artillery in NSW and later throughout the Commonwealth.

**Commonwealth School of Gunnery**

Federation did not greatly affect the School, as the attendance of students from other Colonies was no novelty. The School continued to be referred to as the "School of Gunnery," although it was now the "Commonwealth School of Gunnery."

In July 1902 Capt W. A. Coxen became CI, a post which he held officially for eight years. However, the last three of these were spent in England, and during his absence Capt H. J. C. Taylor ran the School. The latter became CI officially in April 1910, when Maj Coxen returned to Australia and moved on to another posting.

In 1904 the School conducted what was probably its first "Mobile Wing" when the CI and his Assistant Instructor in Gunnery ran a course at Queenscliff, Victoria.

It is interesting to note that in this year a young 2/Lt who was to become one of Australia's greatest gunners, and indeed one of her most famous soldiers — Maj-Gen Sir Charles Rosenthal, KCB, CMG, DSO, VD—attended a short course at the School. In 1906 a future Governor of Queensland—Lt (Prob) J. D. Laverack—attended a short course. Many other young officers who attended Schools through the years were to rise to General rank and to render distinguished service both to the Corps and to the Army in general.

Between Federation and World War I the principal types of courses run at the School were Short Gunnery Staff Courses of 3 months' duration, Master Gunners, Light QF, Range Finding, Layers and Electricity Courses. Long Courses were conducted in 1905, 1907 and 1913.

In 1907 the Long Course went to National Park and carried out the first 18-pounder practice ever held in N.S.W.

In May 1911, Maj J. A. Hurst took over as CI from Maj Taylor and was in turn succeeded, in October 1913, by Capt A. R. P. Cross. WOs Home and Molyneaux were AIGs during most of the period from Federation to World War I.

**World War I**

No written record of the School appears to exist concerning the period Aug 14-Sep 18, except for entries in the Army List which show Capt Cross as CI and WO Cain as AIG during 1914, 1915 and 1916.

The last recorded course is a Short Course which ended 1 Aug 14. From then until 1918 there is no reference whatever to the School of Gunnery in Military Orders.

Some light on the years 1917-18 is provided by Maj-Gen J. S. Whitelaw, CB, CBE, now a Colonel Commandant of the RAA, who was wounded at the Gallipoli landing and subsequently spent the latter part of the war years at South Head. He writes:—

"I went to South Head in June, 1917. At that time Cross was a Major. He was CI and nominally Fire Commander PJDP. He never functioned as FC in my time except to produce a criticism of shoots. His AIGs were Hon Lts P. McFarlane and J. Cain.

"The School held a course for RMC Cadets in September 1917, to which, being newly transferred from Inf (MGs), I was attached for the good of my soul. Another similar course was held in September 1918. On this occasion I was administering command of the School, Cross being otherwise occupied. Other than these two courses, I don't think that the School functioned as such, being solely occupied in a leisurely training of Seige Brigade reinforcements. As they had no 8-inch or 9.2-inch howitzer equipment, the so-called training was a bit unreal, I fancy. However, they had lots of time for 'Kiwi,' and they certainly gleamed with polish . . ."

On 27 Sep 1918 the School was incorporated in the Command of the CO RAGA, 2nd Military District, for administrative and disciplinary purposes. The Chief of Ordnance directed that in consequence of this "the office of Chief Instructor will not be filled, and the remainder of the staff of the School of Gunnery are to be attached to the Regimental District Staff RAGA."[21]

On 1 Sep 1919 Maj (Brev Lt Col, Hon Brig) O. F. Phillips, CMG, DSO, was appointed CI, remaining in this appointment until 30 Apr 1921.

Hon Lts P. McFarlane and J. Cain had both been AIGs at the School from 1913, McFarlane left in 1919 and Cain in 1920.

**Artillery Schools of Instruction**

On 1 May 1921 Maj J. H. Hurst was appointed CI for the second time, and the School was reorganized and renamed.[22] It assumed the title of the "Artillery Schools of Instruction," and was to consist of three main branches:—

(a) Technical Artillery School.
(b) School of Artillery.
(c) Coast Artillery School.

The Technical School was to be a modified form of the Ordnance College, Woolwich, dealing with gunnery, physical science, artillery equipments, machine guns, small arms, ammunition, artillery instruments, mechanical engineering, ordnance services, etc.

The School of Artillery was to undertake practical instruction in the work of all Artillery of the Field Army, including Anti-Aircraft. Instruction was to be confined to tactical work and drills, but would also include description of mechanisms, ammunition and instruments.

The Coast Artillery School was to carry out instruction in Coast Artillery and coast defence generally, including electric lighting, etc., instruction to be confined mainly to tactical work and drills, but to include also moving and mounting ordnance and description of mechanisms, ammunition and instruments.

Each School was to have an Instructor with a small staff, and the Instructor Technical Artillery School was also to be Chief Instructor Artillery Schools of Instruction.

The whole idea was extremely ambitious, and never became effective because of the lack of finance, students and instructors.

21. Army HQ file Defence 600.3.19. Memo 87682 of 27 Sep 18, Chief of Ordnance to Comd 2 MD.

22. Army HQ file Defence, 600.13.1 (promulgated MBI No x/d 43 of 1921).

At the beginning of 1921 the Assistant Instructors (AIGs) were H/Lts H. H. Downey, MC, J. E. Hendry and A. J. S. Shepherd, MC. They were joined in September by H/Lts R. L. Roberts and L. C. Wade. Shepherd left the School in 1922.

Maj Hurst was CI until 31 Jul 22, when Lt-Col E. K. Smart, DSO, MC, who had been an IG from 24 Jan 22, became Acting CI. He remained as such until 10 Dec 22, when Maj W. Tomkinson, DSO, became CI. When the latter lost his life by drowning at South Head, Lt-Col Smart again acted as CI (from 21 Aug 23 until 30 Sep 23).

Lt-Col Smart was succeeded on 1 Oct 23 by Maj O. F. Phillips (his second tour as CI). Capt D. Mackey, MC, was an IG from Sep to Dec 23, Maj H. W. C. McBride from Jan to Sep 24, and Maj H. C. Bundock, DSO, from Sep to Dec 24.

Maj Phillips ended his tour on 31 Dec 24, being replaced by Maj H. C. Bundock, DSO. At the same time Capt Mackey returned as an IG.

On 23 Jun 26 Maj G. E. Manchester succeeded Lt-Col Bundock as CI. With the appointment of Capt A. S. Wilson as IG in Aug 21 the School now had a CI and two IGs.

In Jul 27 there was a complete change of officers. Maj H. W. C. McBride replaced Maj Manchester as CI and Capts J. S. Whitelaw and H. F. H. Durant replaced Capts Mackey and Wilson, the latter going to UK for training.

Maj Whitelaw proceeded to the UK for training on 24 Jul 28, and was replaced by Brev Maj H. G. Rourke, MC, on 20 Aug 28. Capt Durant was replaced in Jan 29 by Maj A. S. Wilson on the latter's return from the UK.

H/Lts Wade and Hendry were still AIGs, but Downey and Roberts had been succeeded by WOs Collins and Spencer, and a year later they were joined by WO Kent.

Capt J. S. Whitelaw was appointed CI on 1 Jan 31. The establishment for the ASI included three officers, but, when on 9 Jan 31 Major Rourke sailed for Quetta to attend the Staff College, the CI had only one IG—Capt A. S. Wilson. The commitments of the School clearly warranted the two IGs, and Maj Whitelaw made representations for the vacant IG position to be filled. However, far from getting the vacancy filled, on the 22 Jun 31 the establishment was reduced to two officers and at the same time one AIG—H/Lt Wade—was allotted for duty at Darwin.

WOs Collins and Kent left the School in 1933, being replaced by WOs Guyer and Spence.

On 1 Feb 33 H/Lts Wade and Hendry, who had been AIGs at the school since 1921, were appointed Quartermasters and became QM Instructors in Gunnery. Lt Wade remained with the School until 26 Jul 35, and Lt Hendry until Sep 35. Wade (now H/Capt) was reappointed IG on his return from England in Jul 37, and served at the School until Mar 44—twenty-three years of devoted and outstanding service, during which he made a valuable contribution to the training of Australian gunners. In Dec 47 Lt-Col Wade retired, one of the best-known and best-liked gunners in Australia. Capt Hendry, after

undergoing training in England and later installing 9.2 in. batteries in Australia, became CI of the wartime School of Anti-Aircraft Artillery. He, too, had rendered long and meritorious service at the School. He retired in Apr 50, well known and one of the personalities of the Regiment.

Capt A. S. Wilson left the School in Mar 33. During his four years as an IG he made a valuable contribution, particularly in connection with artillery survey and survey methods.

**Types of Courses**

From 1920 to 1939 the principal courses run were Short Gunnery Staff Courses of 3 to 4 months, one Field and one Coast Course being held each year. A Long Gunnery Staff Course of 9 months' duration was held in 1930-31. In 1928 the first Anti-Aircraft short course was held, subsequent courses being held in 1930, 1937, 1938 and 1939. The first Artillery Survey Course was held in 1925, and a similar course was held in each subsequent year up to World War 2. Flash Spotting courses were run in 1926 and 1927, and, in 1934, the first Counter Battery course was run. Master Gunners' Courses were held at frequent intervals and other shorter courses —principally for the Militia—were conducted from time to time.

**School of Artillery**

On 1 Apr 33 the title of the School changed from Artillery Schools of Instruction to School of Artillery.

In Jul 32, the CI, Major Whitelaw, had written in a Report:—

"In 1921 it was proposed to expand the old School of Gunnery to embrace three Schools—The Technical Artillery School, School of Artillery and the Coast Artillery School. Standing orders including the proposed establishments were published and are still in use.

"It is recommended that, as the establishment has never become effective, the title be changed to that of 'School of Artillery' for the following reasons:—

(a) It is cumbersome, and the word 'Instruction' is redundant.

(b) The abbreviated title 'ASI' is identical with that of Army Schools of Instruction.

(c) The plural form is misleading.

(d) The title 'School of Artillery' is used in England, India and Canada, the latter with the prefix 'Royal Canadian.' "[23]

Approval was given for the change to "School of Atillery," which became effective on 1 Apr 33.

Maj Whitelaw had also sought approval for the prefix "Royal," but this was not approved.

Maj Whitelaw, who was to become Australia's first and (up to date) only MGRA, was succeeded by Maj D. L. Davies on 7 Mar 35. Lts Wade and Hendry had gone in July and August respectively, and it was not until Feb 37 that two new IGs—Capt T. L. Gilchrist and Maj H. B. Sewell—were appointed. Capt H. G. T. Harlock, who had been an IG for three months in 1934, was again appointed IG in May 37.

23. Army HQ file Defence, 704.1.10 (promulgated AAO 57/33).

Maj Sewell left for training overseas in Jul 37, and was replaced by H/Capt Wade on his return from the UK.

In Aug 38 Maj W. N. Tinsley replaced Capt Harlock, and in Nov Maj Davies was succeeded as CI by Lt-Col C. A. Clowes, DSO, MC. From 27 Aug 39, when Lt-Col Clowes left the School, until 19 Nov 39, Major Tinsley acted as CI, being posted as CI (Temp).

## World War 2

### Transition

At the outbreak of war on 3 Sep 39 the School was conducting two courses—No 5 AA Course at South Head and No 5 Militia Field Artillery Course at Holsworthy.

No. 6 Militia Field Artillery Course (Oct-Nov 39) was conducted at South Head (except for shooting) because of a shortage of accommodation at Holsworthy. After this course the "Field Wing" (in actual fact virtually the whole School) moved to Holsworthy, where it was to remain during the war. No. 7 Field Artillery Course Militia (Nov-Dec 39) was the first of the field branch courses to be conducted entirely at Holsworthy.

There was, in fact, one more field course run at South Head—No. 8 Special Artillery Course, AIF (Fd) —in May 40, but it was not run by the regular School staff but by AIF Officers under Maj B. Klein.

The move of "Field Wing" from South Head marked the beginning of an expansion which was to result in the establishment of no less than six central Artillery schools, each teaching a separate branch of artillery. These Schools are dealt with now in turn, but, owing to the very large staffs of most of the wartime Schools and the constant changes of personnel, Chief Instructors only are mentioned. No attempt is made to include details of command, formation, force, etc., Artillery Schools.

### The Field School

Maj Tinsley acted as CI of the School of Artillery until the appointment of Maj H. B. Sewell on 3 Nov 39. Maj Sewell was reposted in Apr 40 and, in the same month, Capt Gilchrist left for training abroad.

Lt-Col H. W. C. McBride was appointed CI for the second time in May 40. He became ill in September, and during his absence first Maj Sewell and then Capt Wade acted as CI. Lt-Col McBride died on 27 Jan 41 and Maj Wade was officially appointed CI from 28 Jan.

Initially, the School was known simply as the School of Artillery, as virtually the whole of the pre-war School had moved to Holsworthy, and no courses were being conducted at South Head. Later, when the "Coast and AA Wing" started to run courses at South Head and elsewhere, the School at Holsworthy was called the School of Artillery (Fd Wing). In Sep 40 its title was changed to School of Artillery (Fd, Med, A Tk and Svy), and, from this time, it and the School of Artillery (Coast and AA) had separate establishments each with its own CI.

In Jan 42 a major reorganization took place, the total strength of the School rising from 46 to 181. It now consisted of a Potential Officers' Wing, an Instructors' Wing and a

Depot Battery of two troops. The affix of the title now became (Fd, Med and Svy).

In Jun 42 the School absorbed the Middle East School of Artillery on its return to Australia. A new establishment was authorised, providing for 22 officers and 249 other ranks, and the running of three overlapping Potential Officers' courses, each of 3 months (each having 84 students). A small Sound Ranging cadre was also included in the organization.

**NCOs' Wing**

On 6 Oct 42 the Second Australian Army School for NCOs at Warwick Farm was brought under LHQ control. A new establishment was issued, and it became the LHQ School of Artillery (Fd, Med and Survey) NCOs' Wing. The organization included a Headquarters, Gun Drill Troop, Battery Staff Troop and Artillery Signals Troop. The total strength was 98. The School made use of the Depot Battery at Holsworthy. The CI was Lt-Col C. Ingate. The Wing subsequently moved to Moorebank, and was disbanded in Sep 43.

Up to this time the School had concentrated on training potential officers and instructors. It now became necessary to run more specialized courses. To meet this need the School was further reorganized to provide a Headquarters, A Troop (to train 43 officers and NCOs), B troop (to train 36 Post OCTU personnel) and C Troop (Mobile Training Wing). The Depot Battery was converted to an operational unit, and requirements were now met by a battery of a field regiment. The Sound Ranging cadre had already been given an operational role and left the School. The title of the School was changed to the School of Artillery (Fd).

The School now ran the following courses:—CRAs, COs and 2 ICs, BCs and Potential BCs, Observation of Fire, Refresher, CPOs and GPOs, OCTUs (3 concurrently), Adjts and IOs, Bty Sig Offrs, Regtl Svy and Gunnery Staff Courses (War). In Jan 44, when the Tk A Wing was formed (consequent upon the disbandment of the Tk A School), the School conducted Tk A courses.

Lt-Col Wade ended his tour as CI on 12 Mar 44, and was appointed SORA1 DMT to conduct Field Branch Mobile Wings. In three tours up to Aug 45, the Field Mobile Wing conducted 47 courses with marked success.

Lt-Col J. S. Anderson, OBE, succeeded Lt-Col Wade on 13 Mar 44, and was succeeded in turn by Lt-Col C. E. Chapman on 30 Aug 44. On 13 Nov 44 Lt-Col B. E. G. Samson became CI, and continued in this appointment until Jun 45.

A Tk A Mobile Wing was formed in Jan 45, which conducted five courses between Feb and May.

Air OP courses, which were run at the School of Army Co-operation, Canberra, were continued at the School of Artillery for the shooting phase. Between Nov 44 and Sep 45 ten such courses were held.

From Sep 45 until the disbandment of the School a month later Maj H. W. Trounsen administered command.

During the war the School conducted a total of 178 courses—126 at Holsworthy and 52 by Mobile Wings.

Field Branch Artillery of the RAA did a magnificent job in World War 2, and some credit for this should certainly go to the School, which maintained a high standard of instruction throughout.

### The Anti-Aircraft School

Establishment of Field Wing at Holsworthy had meant the virtual removal of the entire pre-war School staff from South Head. The School at South Head became known as the School of Artillery (Coast and AA Wing), but for some months after the war started no Coast or Anti-Aircraft courses were conducted there. About Apr 40 Maj J. Manning was appointed CI of the wing, and Lt B. E. Moodie IG. A number of WO and NCO Instructors from the AIF and 1 and 3 AA Cadres were made available, and No. 1 Special AA Course was conducted from 29 May-26 Jun 40. Seventy-eight students attended. This number was too great for the accommodation available at South Head, and thus on 15 Jul 40 the Wing moved to Georges Heights to make use of the better accommodation and training facilities available there. Between 22 Jul-31 Aug No. 2 Special AA Course was conducted. Ninety-three students attended. Although Maj Manning was designated Chief Instructor, the School continued to function officially as a Wing of the School of Artillery under Lt-Col McBride.

In Sep 40 the Wing became the School of Artillery (Coast and AA) on a separate establishment from the School at Holsworthy.

No. 6 Course—scheduled for 23 Sep-2 Nov—was cancelled because of the urgent demands on available equipment for other training purposes.

In Dec 40 the School moved to Scheyville near Windsor, the first course—No. 8—being conducted from 9 Dec 40 to 22 Feb 41. Maj Manning was Chief Instructor for this and the following course. On 1 Feb 41 he was succeeded by Maj J. E. Hendry, whose allotment to the AIF had been cancelled. From this time on the School, though still called the Coast and AA Wing, functioned as a completely separate entity from the School of Artillery (Fd) at Holsworthy.

Lt-Col Hendry was Chief Instructor of the School until 9 Aug 43. During various periods when he was absent on other duties, Maj R. V. Rushton was in charge of the School.

About Aug 41 the School became known as the School of Artillery (AA Wing) in lieu of School of Artillery (Coast and AA Wing). During the early years of the war the demands on equipment for operational purposes were very heavy, and courses had to be sent from Scheyville to Sydney, Newcastle and Kembla for certain phases of Instruction.

In Jan 42 the position was so acute that an AHQ instruction stated that "owing to the lack of training equipment at Scheyville, the CI and staff were to be employed by Eastern Command under the OC AA Defences."

In Feb 42 the AA School moved out of Scheyville. HQ and the HAA Wing moved to Randwick, and the LAA Wing moved to the Clarendon racecourse.

No. 18 Course (8 Apr to 19 May 42) was conducted at locations as follows:—3.7 in. at Randwick; 3 in. at Prospect, and 40 mm at North Head. On subsequent courses 40 mm training was conducted at Clarendon.

A Royal Artillery officer—Lt-Col J. Y. B. Sharpe—succeeded Lt-Col Hendry in Aug 43. For about a month before the arrival of Col Sharpe, Lt-Col F. E. Barnard administered command.

Shortly after Lt-Col Sharpe took over, the LAA Wing was moved to Randwick. Lt-Col Sharpe had pointed out that whilst Clarendon had the advantage of being near an airfield it suffered from the disadvantage that control by the CI was difficult, administration was complicated, excessive travelling was involved when troops had to carry out firing practices on the coast, and, finally, that there was a lack of liaison between the HAA and LAA Wings.

Maj S. A. Fletcher was appointed CI in Aug 44.

In September 1944 the School was reorganized to absorb the AA Wing of the School of Radiophysics on disbandment of the latter School. Certain reductions also took place. The School now consisted of a Radar Wing, Mobile Wing, LAA Depot Tp and HAA Depot Troop.

When in Mar 45 Maj Fletcher returned to regimental duty, Lt-Col J. A. Robinson, who was CI LHQ School of Artillery (AASL), was given the additional task of administering the School of Artillery (AA).

An AA Mobile Wing was formed in 1944, and between Oct 44 and Nov 45 it conducted courses throughout the South-West Pacific Area.

On 30 Jul 45 the School of Artillery (AA) was disbanded.

Up to the start of the war only five AA courses had been run at the School of Artillery, and there was in Australia only a handful of officers and NCOs who were in any way trained in AA. The enormous increase in AA was probably not matched in any other branch of the AMF. The AA School therefore had a tremendous task and responsibility, especially in the early years of the war. It rose to its task very well, indeed, training thousands of AIF and AMF troops. It was fortunate, too, that the small pre-war Regular AA component was so well trained and contained such a large proportion of good instructors. These men, so few compared with the numbers ultimately allotted to AA, exerted a tremendous influence in the training of the AA Regiments, particularly the earlier divisional LAA regiments. Numbers of CMF personnel, too, who had enthusiastically devoted their time and effort to learning Anti-Aircraft work before the war, helped to make possible the remarkable expansion of Anti-Aircraft artillery which took place during the war.

### Anti-Tank School

On the 2 May 41 the School of Artillery (A Tk) was established at

Puckapunyal. The CI was Capt T. F. Cape.

The aim of the School was to train instructors and potential officers for anti-tank units of the AIF and AMF.

During 1941 the School carried out experiments and trials to produce a satisfactory 2-pr A Tk Portee. Trials were carried out using one type of vehicle from the Middle East and a number of 3-ton chassis types of Australian origin. One of the latter was adopted and issued to units. The School also experimented with the 2-pr in a Bren carrier to produce an SP A Tk weapon.

The first 6-pr produced in Australia was demonstrated by the School to a gathering of senior officers.

Maj H. W. M. Nelson succeeded Maj Cape in Jan 42, and was in turn succeeded, in Jun 42, by Maj L. Hughes.

The principal courses run at the School were those for junior officers and NCOs of the AIF and CMF and senior officers' courses. Whilst the majority of courses catered for RAA and Infantry personnel, vacancies were allotted on some courses to personnel from Motor and Cavalry units.

In Mar 43, with the change of the term Anti-Tank to Tank-Attack, the School became the School of Artillery (Tk A).

On 11 Jan 44 LHQ School of Artillery (Tk A) was disbanded and absorbed into the Field School at Holsworthy, Maj Hughes being posted as Senior Instructor Anti-Tank Wing.

### Searchlight School

Prior to and during the first few years of the war, searchlights, with their associated equipments such as generating sets, and searchlight training were Engineer responsibilities. In the early years of the war the School of Military Engineering had a Field Wing and an Anti-aircraft and Fortress Wing. The latter, which was located at Middle Head, trained instructors and other personnel of fortress and anti-aircraft companies in the handling of searchlights.

In Jul 41 two separate Schools were formed—SME (Field) and SME (Fortress). The latter remained at Middle Head, having the same function as the Wing which it had replaced.

With the passing of responsibility for Searchlights from Engineers to Artillery, the School at Middle Head was reorganised on 2 Aug 43 as the LHQ School of Searchlights—an Artillery School.

The Chief Instructor was Lt-Col J. A. Robinson.

When, in Jun 44, the Coast School was started, responsibility for training in Coast Artillery Searchlights (CASLs) passed from the Searchlight School to the new Coast School. As a result, the Searchlight School was reorganised as the LHQ School of Artillery (AASL). At the same time, the School of Radiophysics was disbanded and the School formed a Radar wing and became responsible for SL Radar instruction.

In Mar 45 Lt-Col Robinson was given the additional appointment of CI School of Artillery (AA). From 16 Apr the School of Artillery (AASL) was located with the School of Artillery (AA) at Randwick, and authority was given to reorganise the two Schools on one WE-LHQ School of Artillery (AA).

In Jul 45 the School of Artillery (AASL) was disbanded and elements of it absorbed into the new School of Artillery at North Head.

**Radar School**

At the beginning of World War 2 the Australian Army had no clear-cut policy on the use of radar in the Army. Ideas were vague and confused. It was clear that an officer should be sent overseas to study the subject. Consequently Maj T. L. Gilchrist, who was an IG at the School, was selected to go to the UK to learn as much as possible about radar and its application. He attended a course at Watchet in Somerset, and visited Anti-Aircraft and Coast Artillery units and research establishments, returning in May 41. It was thereupon decided to establish a Radar School in Australia.

It should be mentioned that at this time the Army had been almost persuaded by scientists that operators of radar equipment needed to have a scientific background, and it was some time before it was fully realised in the Army that potential operators needed only to be intelligent soldiers, and that officers who could control complicated equipments such as predictors could also control and efficiently use radar equipment.

On 28 Jul 41 approval was given to establish an "RDF School" in the School of Artillery buildings at South Head. Maj T. L. Gilchrist was appointed Chief Instructor. The School comprised a Headquarters, Equipment Wing and Operators' Wing. Apart from the CI, the first Instructors (Lts Rayward and Tier) had received their training at the Sydney University Radiophysics Laboratory.

The first course was conducted from 4 Aug to 19 Sep 41. At first the School trained artillery personnel in the use of the equipment and RAEME personnel in maintenance and repair. After a few months the School relinquished the latter commitment, as the RAEME had established their own School.

About the end of 1941 the designation "RDF School" gave way to the title "Army School of Radiophysics." This name had been suggested to AHQ by some scientists at Sydney University. The CI did not consider the name particularly suitable, as it tended to give the impression that the School trained scientists.[24] It is surprising, in view of the designations of the other Artillery Schools, that the School was not called "School of Artillery (Radar)."

Later the School became responsible for the administration of an Operational Research Group (ORG) which was attached to the School. Dr. David Martyn was the leader of the ORG, which confined itself mainly to radar projects—"trouble shooting (to quote Col Gilchrist)

24. Letter from Colonel T. L. Gilchrist to Lt-Col A. D. Watt, 15 Jun 56.

rather than development of equipment."

In Dec 43 Maj Gilchrist was posted to MGRA's Staff at AHQ, having made a unique and important contribution to artillery training in Australia. Capt Rayward, who had been one of the original instructors, was appointed CI.

Throughout its existence the School had close liaison with the Radiophysics Laboratory at Sydney University, largely because the Laboratory was developing some Australian Army radar equipments. Initial information on these equipments was obtained from the Laboratory, and the School and the Laboratory staff worked together to evolve drills for using the various equipments.

In May 44 the MGRA wrote to DMT:—

"At present all instruction on radar techniques, whether AA, CA or SL, is carried out at the LHQ School of Radiophysics. It is considered that the initial difficulties associated with radar have been largely overcome, and that radar techniques should now take their place in artillery as one of the normal methods of fire control. Instruction in these techniques should therefore be carried out at the LHQ School, which imparts each particular branch of artillery knowledge.

"It is considered, however, that some centre of advanced radar thought should still be maintained in the AMF, and for the present this should be at the proposed Coast Artillery School, in which branch there are still new developments in progress.

"The present LHQ School of Radiophysics would be no longer required as such and should be removed from the OOB."[25]

As a result, the School of Radiophysics was disbanded, the AA School formed a radar wing and took over AA radar instruction, the Searchlight School formed a radar wing and became responsible for SL radar instruction and the Coast School became responsible for CA radar instruction.

### Coast School

The last coast course run by the pre-war School of Artillery was No. 14 Short Course from Jan to Apr 39. During 1940 and 1941 a number of coast courses were held in Sydney under the direction of the Commander Fixed Defences. They were principally Master Gunners' Courses, NCO Courses and OCTUs.

During 1944 courses in Coast Artillery were conducted at the LHQ School of Searchlights at Middle Head under an arrangement with Second Aust Army.

On 8 May 44 the MGRA recommended the establishment of an LHQ Coast Artillery School. He stated:—"The rapid growth of CA installations in the AMF since 1942 has resulted in a very serious dilution of the trained officers, and both the standard of training and the knowledge of common doctrine leave much to be desired. Further new equipments, including radar and 155 mm American guns, have been introduced, thus accentuating the differences of many units."[26]

25. Army HQ file 240-5-241—minute MGRA to DMT, dated 8 May 44.
26. Army HQ file 240-5-241—minute MGEA to DMT, dated 8 May 44.

The decision was therefore taken to establish a Coast School by absorbing portion of the LHQ School of Radiophysics (which was to be disbanded), the CASL Wing of the LHQ School of Searchlights and by disbanding the two Coast Artillery Training Batteries (recruit training thereafter to be carried out by units to which recruits were posted), and the inclusion of a small depot battery.

LHQ School of Artillery (Coast) was formed on 1 Jul 44 in the old School of Artillery buildings at South Head (up till then occupied by the School of Radiophysics). Lt-Col C. A. Ord, who had been conducting the Coast courses at the School of Searchlights, was appointed CI. A variety of courses were run, the principal ones being Fire Commanders and Battery Commanders' Courses. Most courses included instruction in Gunnery, Radar and Searchlights.

In Jul 5 the Coast School was officially disbanded, the majority of the Staff under Maj D. Woolls moving to North Head to form the Coast Artillery Wing of the new School of Artillery.

### Amalgamation at North Head

In Apr 45 the MGRA (Maj-Gen Whitelaw) wrote to DMT:—

"It is recommended that the four existing LHQ Schools of Artillery be combined in a single School of Artillery, similar to that existing in 1939, together with Mobile Wings. The following factors are relevant:

(a) Considerable saving in manpower will result (17 Officers, 257 ORs).

(b) Units off the mainland find that the demands for students for Schools in Sydney cannot be met without serious embarrassment on account of the time factor.

(c) A nucleus organization for post-war Artillery Schools is an immediate requirement.

(d) Experience with Mobile Wings shows that this form of instruction achieves all that is required except basic war gunnery course for provision of instructors for Mobile Wings.

(e) Fundamental Artillery principles and practice must still be taught.

(f) LHQ still have a requirement for Artillery trials and drill investigations."[27]

The MGRA went on to recommend that the School should consist of three Wings—Administration, Trials and Technical—and Mobile Teams, and that the location of the School should be North Head.

He further recommended that the Chief Instructor should be redesignated "Commandant" and carry the rank of Colonel or Brigadier.

### LHQ School of Artillery

Approval for the reorganization was given by the CGS on 29 May 45 and LHQ directed that the reorganization be completed by 15 Jul 45.

Lt-Col H. G. F. Harlock was appointed Commandant on 23 Jul 45, and a WE of 41 officers and 198

27. Army HQ file 240-5-340 (and 385)—Reorg of LHQ Arty Schools.

other ranks was approved. It included a Brigadier and four Lt-Cols and also, in addition to instructional wings, provided for five mobile wings—two Fd, one Tk A, one AA and one CA. Such a liberal establishment could not be expected to last with the end of the war in sight. Within one month all the Mobile Wings except one (Fd) had been deleted, as had three of the four Lt-Cols.

During July, August and September equipment and personnel continued to concentrate at North Head as Schools were disbanded and Mobile Wings returned. There was a very serious shortage of storage space and hardstandings—a problem which has continued to confront all CIs ever since.

No. 1 District Officers' and Master Gunners' Course was run from Sep to Dec 45.

### HQ AMF School of Artillery

On 12 Oct 45 the prefix LHQ changed to HQ AMF.

A new establishment was authorized in Nov which cut the numbers down to 10 officers and 87 other ranks and provided for Fd, AA, CA, Radar and Trials and Maint Wings.

Lt-Col Harlock was posted to HQ AMF in Dec, and was succeeded by Brig E. M. Neylan, MC.

In Jan 46 the BRA, Brig L. E. S. Barker, CBE, DSO, MC, advised DMT that many AMF officers who had been commissioned during the war had never done a standard gunnery course at the School; also that other PMF officers and AIC personnel who would shortly return to RAA needed refresher courses, and that the majority of RAA officers would need training in radar. He therefore recommended that the School should commence a programme of Short Gunnery Staff Courses (SGSCs) of 3 months' duration in Field, Anti-Aircraft and Radar, and 6 weeks' courses in Searchlights.

This was agreed to, and the proposed courses were started immediately. PMF gunner officers were brought in from near and far to attend these courses. During this and the following year some officers did as many as three Short Gunnery Staff courses in different branches of artillery. This policy was to pay dividends later when the CMF was raised.

### Army School of Artillery

On 10 Apr 46, consequent on the change from HQ AMF to AHQ, the School became the Army School of Artillery.

The School received a heavy blow in Mar 47 when it was cut to 35 all ranks. Only the Fd and AA wings remained and they were extremely small.

On the 12 Mar Lt-Col J. S. Andersen, OBE, succeeded Brig Neylan as Commandant.

The only courses run in the first half of the year were a SGSC (AA), a pre-OCTU and an RMC Postgraduate course.

### Cadre Courses

It soon became clear that if trained cadres were to be available for the new CMF a vigorous programme of officer and NCO training

should be started. The first requirement was for a bigger staff at the School. Thus, in Aug 47 a new WE was authorized, providing for 20 officers and 90 other ranks and the following Wings—Field, AA, CA and Observation.

In Sep 47 three cadre courses commenced (Fd, AA and Obs). They were of 6 months' duration and each course had 75 students. In Apr 48 a second batch of courses commenced. These courses were all designed to train Adjutants, Quartermasters and Warrant Officer Instructors.

Shorter courses were also run during 1948, including a Naval Bombardment course. The School also commenced to train operators for the LRWE at Woomera.

**RMC Wing**

On 25 May 48 Lt Col Anderson was appointed CI RMC Wing in addition to his existing appointment, and an RMC Wing was formed to conduct ARA RAA Officers' Qualification Courses.

No. 1 Course (25 officers) was held from 13 Jul-20 Aug 48, No. 2 from 7 Sep-15 Oct 48 (20 officers), and No. 3 from 11 Jan-18 Feb 49 (35 officers). An additional course (All Arms) was held in Nov 50.

1949 was another year marked by the vigorous policy of training ARA officers and NCOs at the School. Most gunner officers of field rank or below attended at least one SGSC in the years 1946 to 1949. Four SGSCs were held in 1949, in addition to a master Gunners' Course and several shorter courses.

This year also saw the reintroduction of CMF courses at the School and the commencement of Mobile Wings to CMF camps and units.

In Jun 49 the designation of the Officer in Charge reverted from Commandant to Chief Instructor.

Lt-Col F. R. Evans succeeded Lt-Col Anderson on 12 May 50.

Three SGSCs (Fd, AA and CA) of 4 months' duration were run during 1950, in addition to five CMF courses and several short ARA courses.

In May 51 the axe fell again, and the School was almost as badly off as in the lean period of 1947, the new WE restricting the School to a total of 46 all ranks.

As a result, fewer courses were run in 1951, although two SGSCs (Fd and AA) each of 4 months were completed.

Air OP courses (6 months) were started in 1952, and two have been conducted each year since. Flying training is carried out at Canberra, and gunnery, communications and tactics at the School and Holsworthy.

During 1952 a series of special courses was conducted to provide instructors for National Service.

The School commenced to run Tac 3 courses for RAA officers in 1952. Courses were also run in 1953, 1954 and 1955, after which responsibility for all Tac 3 courses passed to the School of Tac Adm.

During 1953 the School handled a large number of courses and Mobile Wings with an inadequate staff, but in Oct a reorganization took place.

The CA Wing was deleted and a Tactics and Communications Wing formed. The Recruit Training

Troop, which had been located at the School for convenience, became the Corps Training Wing of the School. The new LE which gave effect to this reorganization allowed for 11 officers and 65 other ranks (RAA).

On 16 Nov 53 Lt-Col A. D. Watt succeeded Lt-Col Evans.

In 1954 ARA Regimental Officers' Gunnery Courses (3 months) were introduced. Two courses (one Fd and one AA) have been conducted each year since.

Courses for Burmese officers were run in 1954 and 1955.

An All Arms Field Officers' course was held in Jun 55. This year also saw the introduction of a variety of one month courses, each counting towards qualification, for officers and NCOs.

The Corps Training Wing conducts DP3 courses in Fd, LAA and HAA for soldiers allotted to RAA. It also runs Junior NCOs' courses for potential Bdrs and Sgts' courses for potential Sgts.

In recent years the School has conducted more than fifty courses each year.

A DRA's Conference (the main feature of which is an exercise) had been conducted annually until 1952 and thence every second year.

It would be possible, in view of the large amount of material available, to write at length on many aspects of the post-war years at the School; such, however, would not be in accordance with the aim of this article. Suffice it to say that the School has played its part in the vast expansion resulting from the raising of the CMF and the introduction of National Service, and that gunners everywhere should be grateful for the foresight which enabled such a magnificent station as North Head to become the School of Artillery—a fitting location for the "spiritual home of Australian gunners."

### Conclusion

During its long and unbroken existence the School has rendered loyal and effective service, training gunners who have served with distinction in four wars—always progressing yet remaining ever true to the matchless traditions of the Royal Regiment of Artillery.

## LIST OF CHIEF INSTRUCTORS

### 1885-1956

| | |
|---|---|
| Col E. G. H. Bingham, RA | ? 1885-Nov 1889 |
| Maj W. S. Churchward, RA | Nov 1889-Feb 1893 |
| Maj W. T. Bridges | Feb 1893-Mar 1902 (Capt A. H. Sandford A/CI Nov 99-Oct 00) |
| Maj W. A. Coxen | Jul 1902-Oct 1907 |
| Capt H. J. C. Taylor | Oct 1907-Jun 1911 (A/CI Oct 07-Apr 10) |
| Maj J. A. Hurst | May 1911-Oct 1913 |
| Capt A. R. P. Cross | Oct 1913-Aug (?) 1918 |

## LIST OF CHIEF INSTRUCTORS
### 1885-1956 (Cont.)

| | |
|---|---|
| Maj (Brev Lt-Col/Hon Brig) O. F. Phillips, CMG, DSO | Sep 1919-Apr 1921 |
| Maj J. H. Hurst | May 1921-Jul 1922 |
| Brev Lt-Col W. K. Smart, DSO, MC | Aug 1922-Dec 1922 (A/CI) |
| Maj W. Tomkinson, DSO | Dec 1922-Aug (?) 1923 |
| Brev Lt-Col E. K. Smart, DSO, MC | Aug 1923-Oct 1923 (A/CI) |
| Maj (Brev Lt-Col/Hon Brig) O. F. Phillips, CMG, DSO | Oct 1923-Dec 1924 |
| Lt-Col H. C. Bundock, DSO | Jan 1925-Jun 1926 |
| Maj G. E. Manchester | Jun 1926-Jun 1927 |
| Maj H. W. C. McBride | Jul 1927-Dec (?) 1930 |
| Maj J. S. Whitelaw | Jan 1931-Mar 1935 |
| Maj D. L. Davies | Mar 1935-Nov 1938 |
| Lt-Col C. A. Clowes, DSO, MC | Nov 1938-Aug 1939 |
| Maj W. N. Tinsley | Aug 1939-Nov 1939 (CI Temp) |
| Maj H. B. Sewell | Nov 1939-Apr 1940 |
| Lt-Col H. W. C. McBride | Apr 1940-Jan 1941 |

After Sep 40 various independent wartime Schools were formed, which functioned independently. All CIs are mentioned in the narrative.

| | |
|---|---|
| Lt-Col H. G. F. Harlock | Jul 1945-Dec 1945 |
| Brig E. M. Neylan, MC | Dec 1945-Mar 1947 |
| Lt-Col J. S. Andersen, OBE | Mar 1947-May 1950 |
| Lt-Col F. R. Evans | May 1950-Nov 1953 |
| Lt-Col A. D. Watt | Nov 1953-Nov 1956 |

# REGIMENTAL NOMENCLATURE AND BATTLE HONOURS OF THE ROYAL AUSTRALIAN INFANTRY CORPS

Captain J. G. Ryan

6th Infantry Battalion — The Royal Melbourne Regiment

A STUDY of the system of Regimental nomenclature of the Royal Australian Infantry Corps over the years since the end of World War I shows the following three weaknesses:—

(a) The memory of all the sixty battalions which fought with the AIF in World War I has not been perpetuated either by their continued existence in some form or other, or by the allotment of their battle honours to units at present in existence (with the exception of a small number of CMF units at present on the Order of Battle).

(b) Although units of the Second AIF in World World II carried the prefix "2," little direct relationship existed between the corresponding infantry battalions of the First and Second AIFs.

(c) The future is not provided for in that there is no guarantee of the continuity of even those units at present on the Order of Battle.

At the conclusion of World War I an attempt was made to ensure continuity of tradition and perpetuation of battle honours, by the raising and numbering of CMF units approximately in accordance with the territorial basis on which the First AIF was raised. This system was satisfactory until the commencement of World War II.

The battalions of the Second AIF were raised in the same States as those of the First AIF (although not in as great a number), and at first had a sentimental association, as was intended. Unfortunately the system broke down, because the units which had become heirs to the battle honours of World War I (the in-between wars CMF) were

existent in their own right as the Militia during World War II.

Those units of the CMF which were re-raised in 1948 carry the battle honours of their predecessors, but there is a gap in that there is no perpetuation of the tradition of the Second AIF.

A suggested answer to the problem is in the introduction of a system similar to the British pattern, which would:—

(a) Consist of a number of Regiments, so that future expansion or reduction of the Army, in peace or war, would be in terms of the number of battalions in a Regiment, and not in the raising or disbanding of one battalion regiments as in the past.

(b) Continue the battle honours of the First and Second AIFs and the Second World War Militia in such a way that the grouping would have a traditional and sentimental justification.

(c) Allow flexibility for the future and establish an enduring system which would maintain tradition and guarantee the continuity of the Regiments raised.

The writer's solution to the implementation of this is in the formation of a number of Royal Australian Regiments, and the allotment to them of battalions equivalent in number, and similarly numbered, to those of the First AIF, even though these would not all be raised in actual fact. Existing territorial designations and battle honours would be retained and additional battle honours, including those of World War II and Korea, would be allotted as appropriate. In some cases the first battalion in a Regiment could be a Regular unit, which would cement the bond between the Regular and Citizen Force components of the Army. An example would be:—

**Second Royal Australian Regiment consisting of (say):**

| | |
|---|---|
| 4 Battalion | (Regular) |
| 6 Battalion | (The Royal Melbourne Regiment) CMF |
| a Battalion<br>b Battalion<br>c Battalion | Appropriate existing CMF units in Victoria |
| x Battalion<br>y Battalion<br>z Battalion | Not raised — existing in name only, pending possible expansion of the Army. |

Existing Scottish Units could be similarly grouped together to form a "Royal Australian Scottish Regiment," and whilst on the subject of Scottish Units, why not a "Royal Australian Irish Regiment."

# The Season for Change is here

Lieutenant-Colonel Clarence C. DeReus, Infantry,

United States Army

IF one were to place his ear to the heart beat of the Nation today, some rather peculiar sounds would be heard. Some noises would relate to politics, some squeaks about taxation, and some groans about such an uncontrollable element as the weather. But mixed within the various sounds would be a peculiar one—not a noise of definite nature, but rather a quizzical buzz of doubtful cast. The big question in the mind of the thinking public is "what happens now that we no longer possess a monopoly on the atomic weapon?"

Statements such as "the absolute weapon," "pushbutton warfare is around the corner," "the next war could be won in 30 days," are becoming less popular.

These terms, splashed as headlines in newspapers and periodicals, have lost credence when employed as clinchers in speeches of importance. Many people are suddenly awakening to the fact that two sides, not just one, may now use these terms with a definite degree of proprietorship. Any further logical deduction calls to mind the mythical "gingham dog and the calico cat who ate each other up." Thus some clouds appear on the horizon that seem to have taken the form of question marks.

The questionable items appear to fall generally into the following areas:—

Can anyone really win an all-out nuclear war?

Can we as a nation depend on a single strategic concept linked to a single weapons system any longer?

Will the coming era be one of an atomic stand-off?

—*From "Military Review," USA.*

What type of activity will develop if the atomic capabilities develop into a *mutual* deterrent?

If an atomic stalemate does develop a change in the pattern of activity, what do we do, when, and how?

As logical thought is devoted to these questions, there cannot help but develop an uneasiness of mind. This scepticism does not arise out of "doubt for doubt's sake," but is rather a trace of fear emanating from an objective appraisal of the world situation today.

Let us examine each of these questions in a rational manner, and attempt to arrive at logical answers. To thoroughly study the problem, the national security objectives must be considered. The Secretary of the Army, The Honourable Wilber M. Brucker, in testimony before the Senate Armed Forces Committee, stated:

*The basic objective of the United States national security policy is to preserve the security of the United States and her fundamental values and institutions. In furtherance of the basic objectives, the United States seeks by any and all means acceptable to the American people to oppose the international Communist movement to the degree that it will no longer constitute a threat to the United States. Thus the prime objective of our national security programme is the deterrence* [underscoring added] *of aggression.*

This view is highly logical and acceptable. It is to the interests of all to avoid war by any honourable means available. Deterrents, however, must be of such a nature as to blanket all possibilities; to deter in one area and to ignore, neglect, or indulge in wishful thinking in others is highly impracticable. A deterrent must be obvious, clearly visible and respected by all concerned, and of sufficient magnitude to constitute a threat, or it is not truly a deterrent. To wave a club at a bully may deter him from attacking you, but to tell him you will find a club and hit him if he molests you will have little effect. Deterrents must be devised in varying fields to include political, economic and military areas. It also must be in evidence that the people of the country possess a moral strength and a determination to do what they believe is right. As long as people believe in a way of life, and are willing to protect that way of life, the moral strength sufficient to deter in this area will be evident—and adequate.

The concept of deterrence is not new to the American people. They recognise that the policeman in uniform with a gleaming badge, pistol and night stick patrolling the beat is the basic deterrent to crime. It is not that he can always prevent criminal acts, but what he represents to the would-be criminal is the strength of law, the contact with other police agencies of greater capability, and a direct association with the agencies of justice. Such is the case with national military deterrents. They must be obvious in all elements, and have behind them effective ready forces to answer any call, large or small. One problem constantly limits military forces and national leaders, however. That which is an adequate

deterrent today may, by scientific discovery, technical advancement, or even preparedness, be rendered completely ineffective tomorrow or the day after. In this respect, termites can attack the club as you wait for the bully to attack.

### Today's Great Concern

With an understanding of our objectives in national security, let us consider each of the questions that contribute to today's "great concern." As to whether anyone can *win* the all-out nuclear war, we have but to look to the public statements of leaders of countries with widely diverse, but equal interests. President Eisenhower has stated that no one could *win* such a war because of the ruin, devastation and suffering each side would of necessity bear. Mr. Bulganin, of the USSR, made public utterances during his visit to Great Britain to the effect that such a war could not be sustained by either side. No loyal American would be willing to exchange New York City for any other city or combination of cities any place else in the world. And if he did so agree, could he ever feel that he had *won* after such an exchange? Participate—we may be forced to; but *win*—never.

For the past several years "massive retaliation" has been based almost entirely upon a single weapons system—the atomic weapon delivered by the long-range bomber. No one can deny that the Strategic Air Command has been the prime deterrent of *general war*. It is interesting to note, however, that since the end of World War II *600 million people living on approximately 6 per cent. of the earth's surface* have fallen to Communist control. When Communist aggression was undertaken by military forces, those forces were *ground* forces. And when they were resisted by non-Communist forces the decisive military power was that of *ground* power—witness Greece, Korea, Indochina—yes, even China herself. All of these were "little wars" when viewed from a global aspect. All of this "little war" conquest was undertaken in the face of our atomic monopoly, or superiority, and without the threat of employment of atomic weapons by the Communists. It appears logical to assume that the atomic weapon coupled with a capability for air delivery was not *truly* a deterrent in all cases.

It is also recognized that the atomic weapon delivered by the long-range bomber is woefully lacking as a weapons system to defeat border skirmishes and jungle warfare. This system is utterly useless in coping with subversive and dissident political elements within friendly countries. The threat of atomic destruction is no lullaby to a country torn by political unrest. All of this serves to support the contention that a *single strategic concept built upon a single weapons system at the expense of all others is not sufficiently flexible.* Security-conscious people doubt its ability to *stand the varied tests of an aggressive enemy.*

As the current and projected capabilities and limitations of nations are evaluated, it appears

that the free world and the Communist bloc are headed for an atomic stand-off. Each will be able to devastate the other; the check will have been made and a balance reached. It seems logical that the threat of atomic destruction will become a *mutual deterrent.* This thought is already being debated in the world press. Each side will pose the threat while praying it will not be used. To launch the all-out nuclear war would be to ring the death knell of not one but several nations, including that of the aggressor. This form of war could lead to international suicide, but the shadow of *this* alone would certainly not alter the aggressive purposes of international communism. Such an atomic stalemate would merely enhance the conditions under which the Communists could resort to lesser forms of aggression.

They need but look over their shoulder to the recent past to find what has proved to be an acceptable pattern for conquest. That pattern is one of subversion, infiltration, and the promotion of political dissatisfaction. Local aggression in areas of unrest in which "Hessian forces" can be employed will become the order of the day. And why not, if the opposition thinks only in terms of all-out nuclear war and faces an overwhelming deterrent to that? This lesser form of aggression is the one for which forces already exist. Not only is the skeleton there, but also the muscle in the form of powerful land forces in being. An atomic *stalemate will change the pattern of activity but will never alter the Communist dogma of expansion.*

The last of the "great concerns" poses no small problem. When the powers of the world arrive at an atomic stand-off and the pattern of activity changes to one of "limited aggression"—and no one can deny this is a distinct possibility—what can we as a nation do? It becomes a dictate that we possess economic stability, political courage, an imbued belief in our way of life, and have a *flexible* military force.

As to the military force, it must be of such a nature as to always lend itself to supporting national policy. As its objectives, this military force must be prepared to cope with the little war, both as a deterrent and, if necessary, as a victor. It must also pose a threat sufficient to forestall general war, but, that failing, must provide a framework upon which to mobilize to win the "large war." Naturally, these military objectives must be in consonance with our international obligations and compatible to our allies.

### To Accomplish Objectives

To accomplish these objectives, certain requirements become obvious. We must continue to maintain, in being, an atomic delivery capability. We must keep military forces deployed to fulfil our international commitments. We must maintain general reserve forces in being capable of moving in hours or days to the trouble spots of the world. Other ready forces must be available to reinforce either deployed or general reserve forces. There is a continuing need for effective assistance programmes to our allies to better their capability to assist themselves or others. A

framework of trained reserve forces and a stand-by mobilization base must be ready for expansion to fulfil the requirements of general war, should that develop. In each instance United States forces in being, or the reserve forces on stand-by, should have the equipment and know-how to employ atomic weapons when approved by the Nation's leaders. Obviously, forces in being must be supported by a logistical organization, in being, adequate to meet the demands of the local war, expand to the proportions of the general war, and live through both. Last, and by no means least, every effort should constantly be exerted to maintain the lead in the race for a technical superiority.

Although in some minds last rites are about to be conducted for the dominance of land forces in war, a review of the "great concerns" listed herein will lead many to reconsider this burial and postpone it to a later day. It is significant that in this age, in spite of almost unbelievable technical accomplishments, the line of demarcation between peace and hostility is drawn at the furthermost point of advance of the infantry soldier. If he has not been there, the line is not truly established until he arrives. The infantry and those who support it have a peculiar adaptability, for they seem to fit in all types of wars, large and small. If the enemy's might of retaliation and his possibility of recovery have not been properly disposed of, a true peace has not been initiated until the "Queen of Battle" and her supporters arrive on the scene. Could it be that the toast "Long Live the Queen" is not a mere wishful thought, but is truly a factual tribute to the ultimate dominant force?

### Strong Military Force

What has been proposed is a strong military force adequate to cope with war in its every form, be it local or world wide. The deterrence of war in every form is our prime concern. In the event deterrence fails, it then becomes imperative that we win the war regardless of its nature. Military forces of our country exist only for the purpose of furthering national policy and providing a security for our way of life. This dictates that they be sufficiently flexible to support any policy our Nation may select.

One has but to listen to the quizzical buzz emitting today from thinking people as they view international situations to recognize that "the season for a change" is upon us.

# TITO — KEYSTONE OR STUMBLING BLOCK ?

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OF all European states, there is one that provokes more interest and hope combined than all the remainder. This is Yugoslavia —ruled by Communist doctrine, yet independent of the USSR—supplied with American arms, but refuses to answer questions as to their use.

Yugoslavia forms one of the strongest European links between East and West. The country was civilised from the West, but the high western mountains have kept trade rolling down the broad sweeps of the Sava and the Drina on to the Hungarian plain.

The geographical entity of the country is as a hinterland for Belgrade. The Celts built a stronghold here three centuries before Christ, and called it Singidunum. Hard on their heels came Romans, Huns, Sarmatians, Goths, Gepids, the Franks under Charlemagne, and

Bulgarians, for the location of this fortress gave it control over Danube traffic to and from other large trade centres and over the disposal of the produce of the rich Croatian plain. In the Byzantine era, Basil the Second held sway, and the Greeks played dog-and-the-bone with the Hungarians and Bulgars.

This place became known as the Hill of Wars; then the Turks captured it and named it Daroc-i-Jehad, Home of the Wars for Faith; for during their hundred and fifty years they had wars in plenty. Several times they lost it to and regained it from the Austrians, but were turned out by a Serbian revolt. In both world wars it was held by the Germans.

As has been the case with Poland, this foreign interference has developed Yugoslav nationalism to a high degree. During the last war partisans kept ten German divisions tied down in a holding role. The leader of the partisan army was Marshal Tito. He was thus left in power with the arrival of peace.

He established a new system of government, modelled on the Russian, yet it was born without Russian assistance.

Since its inception its policy has gone through two stages and is now travelling in a third. These changes have been quite clear cut and hinge on the USSR. In 1949, due to Soviet attempts to "satellize" Yugoslavia, a break was made from the Iron Curtain, and the Western powers became her aid to economic independence. In 1953, the death of Stalin let Soviet policy relax, and 1955 saw Yugoslavia having slightly better relations with the East than the West.

However, despite this convenient distinction in changes of Yugoslav policy, the situation is easily oversimplified, and all sorts of conclusions are within easy jumping distance. To get the right one, we must follow the thread through each of these stages.

### 1. 1945-1949

The type of state which grew up in the first stages was modelled on the USSR. The new constitution, the legal system, strict security policed by a large secret force, trials of state enemies by a public prosecutor, the type of education with strict censorship and much propaganda, were all copies of the Soviet form. The Church became restricted and trade unions were declared by the International Confederation of Free Trade Unions to be "mere puppets of the state."

Economically, this country of 15,000,000 people and 72,000 square miles could not follow the Continental system of Russia in detail, but strove after Soviet economic principles. Tito's aim was clear—Yugoslavia would be strong in its own right—not dependent on anyone else. This meant development of natural resources so that the standard of living would be high instead of primitive, and the replacement of an excessive rural population in flourishing industry to defeat starvation and unemployment. In 1947, a Five Year Plan for development was drawn up, providing for the investment of 278.3 thousand million dinars (£1390 millions Stg) in five years, of which 172.4 were to be used in industry.

Development in every field was provided for—electrification, heavy and light industry, and consumer goods in that order.

The Russians did not approve of the Five Year Plan, for it did not fit in with their plans for the integral development of satellite Europe. Still they delivered about $300 million of promised credit for the plan as power station machinery, equipment for metal industries and machine tool production. Yugoslavia refused to integrate her army with that of the USSR, although Russian officers assisted as advisers and experts. This led to bitter communications between Tito and Stalin, in which Tito displayed a most remarkable and outspoken independence. Stalin was wrong in thinking that Russian support was essential to Tito's position.

Most Yugoslav Communists were shocked by the break with Russia, but very few were won away from active support of Tito. Non-Communists were glad to see the break with the USSR, so national unity was increased.

Security was gravely threatened. Strong internal measures were taken against a Russian-engineerd "coup." Politically Yugoslavia was isolated. Her eastern frontier was ringed by satellite states—Hungary, Rumania and Bulgaria. She was not on friendly relations with Greece in the south and Italy and Austria in the north, and Albania on the back door step was doing everything to co-operate with Russia. These forces did everything short of open warfare to undermine the Tito regime.

Economic sanctions were taken by the Eastern countries. By the third term of 1949, Yugoslav trade with the USSR and her satellites had entirely ceased. This severed the outlet for 51% of all her trade. All the major equipment for the development of the Five Year Plan was to come from Russia. She was also dependent for oil, coal, coke and textile raw materials.

Relations with the Western powers—her chief allies in the war—had deteriorated since 1945, for Tito had followed the lead of Russia in foreign policy. Only on the subject of Trieste did Tito differ from the Kremlin.

This left Tito in sore straits. His country's freedom was threatened, the security of his Government was attacked, and all his hopes for economic development looked like being crushed by intolerable economic sanctions. He couldn't last that way for very long. Thus the second stage of Yugoslav post-war policy was initiated.

### 2. 1949-1954

#### Western Aid

For continued development Tito had to have economic relations with the West—trade, credit and loans. The necessity for speed in effecting these relations made the situation more difficult. Tito had to swallow the haughtiness and abuse of the previous few years and ask for help, but with certain stipulations. He wanted help, but with no political strings.

The international situation favoured him. The West saw that if he went under he would be replaced by a Russian nominee, and com-

menced a policy to "keep him afloat." In 1950 Yugoslavia suffered a terrible drought, which destroyed half her total foodstuffs. This increased the tempo of aid on humanitarian grounds. By 1951 she had received £10.36 millions Stg from Britain and $87 millions from the USA for food and raw materials. To fulfil trade obligations, she needed machinery. She had to make a lot of hard and protracted negotiations, but most countries accepted her as a good risk and the International Bank made loans. Between 1949 and 1953 Yugoslavia accumulated debts of $287 million.

Further grants were made on an annual basis—1951-2 $122 million, 1952-3 $99 million. A second severe drought in 1952 necessitated another grant of $46 million from the USA. Thus Yugoslavia had geared her economic policy with that of the West, and was able to advance on a more solid basis than before.

The Five Year Plan and excessive and top-heavy investment taxed funds extremely heavily, and production dropped from 1948 to 1950. Western aid made the reversal of this development possible. It was done by scaling down projects and by giving workers a stake in the economy. The results of the five years 1948-53 were tremendous. Coal mining trebled, metal mining and production doubled, more electric power was produced than could be used, steel production doubled; oil, chemical, textile, aluminium, timber, machine tool and consumer goods industries became firmly established. Imports were now restricted to oil, petrol, cotton, wool, cars and trucks. The greatest shortage was now trained technicians at every level.

**Governmental and Internal Reforms**

The reorganization of industry was the first step in improving it. In 1951 industry was decentralized. Factories were run by elected workers' councils with a Government manager. Wages were regulated by the public authorities and profits could be used to give bonuses to the workers.

In 1953 it was necessary to modify this scheme, as bonus distribution was becoming too liberal. Certain commitments were placed to be paid before bonuses, e.g., state taxes, loan repayment, social insurances, etc. Yugoslavia maintains that this system has been a tremendous help in improving quality and output.

With Western aid, visitors and contacts from the West received a more tolerant attitude. Internal security was relaxed, freer speech and publication, less coercion of the people to attend party functions, and Western literature and ideas entered the country.

The break with Russia had given an opportunity to examine the constitution carefully, and in the light of the above liberalism a constitutional change was adopted. This was the decentralization of Government departments.

A new constitution was drafted and became law in January, 1953.

This abolished the Presidium by introducing a President elected by bo h Houses of the Assembly. The Houses of the Assembly were

changed from a House of Representatives and a Chamber of Nationalities to a Federal Council (one elected deputy per 60,000 inhabitants and 12 per republic) and a Council of Producers (representatives of workers of all types).

In spite of these democratic improvements, no opposition was provided for.

The Communist Party went through two main stages. From From 1948 to 1950 it was on the defensive against Stalinism. This led to a new philosophy of the party—"Socialist Democracy," and from 1950 the exposition of this became the major task of the party.

Once unity behind Tito had been established, important posts in industry, commerce, agriculture, central and local government were filled with men proved by efficiency and popular recognition, not just members of the party. Thus the rank and file Communists had to pay some attention to their fellowmen. This led to party education in the techniques of popular and efficient leadership.

**Agricultural Reforms**

Agriculture had declined very sharply between 1948 and 1950. This was due to the high proportion of investment placed in industry, which was deemed more important, and State attitude to the peasant farmer, who was regarded as the last vestige of capitalism. A large number of co-operative farms had been formed before 1948, but in the next two years they increased tenfold to 6835.

This mushroom growth made the agricultural situation one of impending disaster. Peasants originally joined the co-operative scheme for three years, and when in 1952 some tried to leave they were accused of trying to sabotage the whole experiment.

It became necessary in 1953 to pass a decree permitting peasants who wanted to leave to do so with full compensation in land and finance. All co-operatives not running at a profit were closed down. By 1954 the number of collective farms was only 18% of what it had been in 1952.

This step was felt by many members of the party to be loss of face —"socializing" agriculture had failed.. To regain some of this, restrictions on land holdings were passed, limiting all property to 10 hectares (25 acres). Expropriated land was used for keeping as much of the collective element going in agriculture as possible.

Emphasis on investment was altered to enable 620 thousand million dinars to go into agriculture in ten years. Foreign aid in the form of tractors, breeding stock, agricultural machinery, and fertilizer was obtained. Money was given for improving rural communications and training specialists—both inside and outside Yugoslavia.

Incentive methods were used to encourage the peasant to increase production. Guaranteed minimum prices instead of controlled maximum prices were introduced for produce. Taxation was based on an estimate of the next year's income instead of the actual of the previous year. This meant that improved production would be complete profit to the peasant. General

co-operative societies, chiefly for finance and credits, were set up, and in 1953 70% of all peasants belonged to these, and with the situation in good order, agriculture began to advance rapidly.

**Foreign Policy and Relations**

After the new constitution of 1953, foreign affairs was the major field left to the Federal Government. The Federal Executive Council of 35-40 members, elected from the National Assembly, is the controlling body. The Assembly has very little significant discussion on foreign affairs. The Ministries of Defence and Foreign Affairs are the only two drawn from the Council, so its attention is very largely focused on foreign affairs. Members of the League of Communists feature largely in the Council, so foreign policy is conducted according to the League's wishes.

Between 1945 and 1949, Yugoslav relations had been severed with the USSR, Rumania, Bulgaria, Albania, Hungary and Greece. She was at Italy's throat for Trieste, and had done everything to discourage friendship from the West. Although Western aid was obtained in 1949, it was quite a while until relations were approaching normal between the USA, Britain, France and Yugoslavia.

The first opening came with Greece. A Balkan Federation of Communist regimes had been arranged and put before the USSR in 1944 and 1947-8, but nothing was permitted.

The next step, once free of Russia, was to co-operate with the non-communist States—Greece and Turkey. In spite of Yugoslav aid to the Communists in the Greek civil war, regional defence was swiftly becoming a reality in 1952. In 1953, a Treaty of Friendship and Co-operation was signed between Greece, Turkey and Yugoslavia. This widened into a trade, economic and cultural alliance.

In 1953, Tito visited Great Britain. The Iron Curtain was raised and visits, ideas and more loans entered. Although he had to move very carefully in the face of heavy party opposition, friendship with the West had been slowly developed, and now was firmly established.

The only cause for friction between the West and Tito's policy of independence was Trieste. After the war, possession of the port of Trieste and its hinterland was strongly contested by Italy and Yugoslavia. Yugoslavia was allowed to occupy one part, while the USA and the UK occupied the other. The Yugoslav zone did not include the city, and when settlement proposals on the basis of the status quo were raised in 1948 and 1953, Yugoslavia remained obdurate.

Relations with the Vatican were closed in 1952 and have remained so.

To further trade, Yugoslavia was forced to seek out allies not committed to either bloc. These she found in India, Burma and Indonesia.

After Stalin's death in March 1953, reconciliation with Russia commenced. Russia proposed restoring diplomatic relations, which was agreed to. However, cold war conditions did not cease. In 1954 the

situation improved. Anti-Tito radio propaganda was stopped, the economic blockade was lifted and trade resumed with the signing of the first barter agreement in October. Reciprocation of Russian gestures was announced, but the situation of 1948 was not to be allowed to develop again.

After the European Economic Commission conference at Geneva in April, compensation agreements were made between Hungary, East Germany, the USSR, Bulgaria, Czechoslovakia and Yugoslavia, and diplomatic relations were reopened.

Thus by the end of 1954 conditions, chiefly economic, had broken down ideological barriers, and the stage was set for a third major phase in Yugoslav post-war development.

### 3. 1955-1956

In this period the completion stages of the Yugoslav house are close. Internally, the country has not changed fundamentally. However, through knowing exactly what is inside, we can assess which way the doors and windows will face, and what alterations are likely.

As a start to active participation in international affairs, Tito conferred with Nehru to produce the Joint Tito-Nehru Declaration, issued in New Delhi on 22 December 1954. This stated the four major principles of current Yugoslav foreign policy:—

Active co-existence.

Independence of power blocs.

Support for the United Nations.

Emphasis on equality and independence of nations.

Yugoslavia's trade balance has been adverse all this period. This has drawn her trade to the most accessible markets yet without loss of independence.

In May - June 1955, Krushchev visited Yugoslavia to make the reconciliation on ideological as well as economic grounds. The Yugoslavs would not agree to social identity between the two states, so Bulganin as Premier was the only signatory to the agreement which resulted, and the parties of each state remained different. In September 1955, a long-term trade agreement with Russia was signed to restore trade to the pre-1948 level within three years. The USSR gave loans to the value of $170 million. However, with a deficit for 1955 of $225 million, Western aid is still essential.

In February 1956, Stalin's treatment of Yugoslavia was denounced. This led to a visit to Russia by Tito in June, and made reconciliation on a party level possible. The final outcome is an independent Yugoslavia with "new Soviet" views on Communist China, Germany and world trade.

Relations with other Balkan states improved steadily during 1955—Hungary has been uncompromising on the matter of compensation and progress here has been slow. Eastern Europe took 10.7% of Yugoslavia's total exports for January-September 1955.

Western aid has continued, and Tito is "determined not to take a single step to deflect us from our friendly relations with the Western countries."

Heavy arms have been supplied in quantity by the USA, and Yugoslavia's military forces have never been stronger. She rejects any suggestion of joining NATO, and offers only limited co-operation, keeping out of the arrangements for Western European defence.

In 1954 the Treaty of Military Alliance between Turkey, Greece and Yugoslavia was officially transformed into a "Treaty of Alliance, Political Co-operation and Military Assistance." It is for twenty years. If Greece and Turkey are committed by virtue of NATO, Yugoslavia remains independent. With the shift in emphasis of NATO to economic rather than military assistance and the Soviet-Yugoslav reconciliation, this treaty has become more of an economic character. Its military worth is being rendered doubtful by the Greco-Turkish differences over Cyprus.

Trieste was resolved in October 1954, leaving the port free, but in Italian hands, with Yugoslavia controlling the country. This improved trade relations with Italy. In 1955 she was Yugoslavia's best customer, taking 10% of her exports.

Asia has figured prominently in Yugoslav foreign dealings, as similarity in interests is most pronounced, particularly in remaining independent of power blocs. Tito visited India in December 1954-January 1955, and Nehru reciprocated in June-July 1955. U Nu of Burma and Tito have also exchanged visits. Yugoslav and Chinese trade delegations have interchanged and technical aid on a mutual basis has been arranged.

The Middle East, particularly Egypt, Abyssinia, Syria and Lebanon, has also received Yugoslav attention in the form of visits. Most important has been Tito's support of Nasser in opposing the Baghdad pact. Tito has visited Nasser twice, and this link seems likely to endure.

Thus the split with Russia has spread Yugoslav contacts and friendships into all parts of the Western and Eastern worlds.

The United Nations Organization has received support from Yugoslavia since its inception, and in turn has given its support to Yugoslavia as exemplified in the election of Yugoslavia to the Security Council in 1949 and the resolution of the General Assembly in 1951 in support of Yugoslavia. She has been active in supporting Arab and Asian countries on the question of colonialism. The reconciliation with the East has made no difference to her United Nations activity, which she has pursued constructively and vigorously, particularly in the last two years.

Now what have we to answer our question — "keystone or stumbling block"? We know Tito is in a secure position in his country. He will take a firm stand at any threat to his independence. He has learnt what Russian treatment is like if one falls out of favour. He is taking no unnecessary risks of this by running across the new Soviet foreign policy. His economy is still in the construction stages, and hence he cannot do without aid—Eastern or Western. It is very difficult to complete this construction without the

local markets of the satellite and Mediterranean countries.

When it comes to the leading question—what will he do if open conflict breaks out—he will retain his independence firstly, and see to his economic interests, which lie chiefly in the East, secondly. These are obvious, but as to which bloc can furnish these best, the question still remains open to the further vagaries of time.

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## COMPETITION FOR AUTHORS

**The Board of Review has awarded first place and the prize of £5 for the best original article published in the November issue to "Old Strategic Lamps for New," by Lieutenant-Colonel A. Green.**

# BOOK REVIEWS

**THE ARAB-ISRAELI WAR, 1948. By Edgar O'Ballance. (Faber and Faber, 24 Russell Square, London, W.C.1.)**

ON first thoughts one is inclined to say that this book could not have been published at a more opportune moment, a moment when events in the Middle East are so much in the forefront of the news. On second thoughts one is tempted to suggest that had it been published a little sooner, and had it been given the attention it deserves by those responsible for the conduct of international and military affairs, those events might, conceivably, have taken a different course.

This book is by far the most objective, the most balanced and the most complete account of the Arab-Israeli War of 1948 that has yet appeared. It is also the most readable for layman and soldier alike. The one is not bored with technicalities, the other is given a sound military critique, which ranges from the relationship between policy and military action to the discussion of tactics. And to have presented so much information so attractively and so concisely (211 pages) is no mean literary feat.

Major O'Ballance leads up to the open fighting by sketching in the historical and geographical background against which the events took place, delineating the political issues at stake, and describing the underground fighting, the jockeying for position, which preceded the British surrender of the mandate and withdrawal from Palestine. As this phase drew to its close the odds seemed hopelessly weighed against the Israelis. Ringed by numerically powerful Arab armies, with no depth anywhere in the territory they held, with numerous outlying and isolated settlements, with hostile communities in their midst, without a properly formed administration, and with only an improvized and ill-armed military organization, they faced formidable odds indeed. All but a handful of independent observers wrote off the Israeli chances as hopeless. They might have been, too, if the Arabs had been able to compose their jealousies, reconcile their conflicting ambitions, and co-ordinate their military actions.

It was this Arab failure to co-ordinate their military actions that gave the Israelis their only initial advantage. At the end of the first period of open fighting, brought to a close by a cease fire pleaded for by the United Nations, both sides could justly feel that they had accomplished a good deal. Generally, the Israelis had held their ground, though in places they had been pretty roughly handled. The Jordanians had occupied a lot of territory and the Egyptians had done fairly well. The troops of both these armies acquitted themselves well, and they accepted the truce unwillingly and firmly convinced that they were more than a match for their opponents.

There is some justice in the Arab claim that the various truces imposed by the United Nations favoured their opponents. It is certainly true that these compulsory pauses in the fighting gave the Israelis breathing spaces in which to consolidate their administration and build up their fighting forces. In these pauses the Israelis, with the world-wide Zionist organization behind them, were able to import arms, ammunition and other military equipment. On the other hand, the Arabs had neither the financial resources nor business contacts to enable them to match the effort. After the first phase of fighting, the Arab armies were very short of ammunition, and each subsequent phase found the balance of weapons and equipment weighing more heavily in Israel's favour. Because of this, the Arabs have always held that they were cheated of victory by the United Nations, and have remained convinced that, left to themselves, they would have won.

An outstanding feature of the war was the utter failure of the much-vaunted Arab Liberation Army. This "Army," courageous enough but untrained in either guerrilla or formal warfare, accomplished practically nothing. On the other hand, the Jordanian Arab Legion, well trained and equipped, won and retained all its objectives except the conquest of the New City of Jerusalem. The Jordanian Government carefully refrained from setting the Legion tasks beyond its capacity to accomplish. In action the Legion proved that a properly trained, equipped and organized Arab army is quite capable of giving a good account of itself. Even when nearly all the British officers on loan to Jordan were suddenly withdrawn, the Legion carried on successfully.

The Egyptians, too, did far better than most observers expected. Their chief handicaps were the lack of adequate tactical training and experience, and their difficulty in maintaining their forces over a long L of C. They underestimated both their administrative problem and the capacity of their opponents.

The Israelis won because they were imbued with a burning will to victory, because their standard of education was far higher than that of their opponents, because they were solidly united, and because many of their officers had had extensive war experience with Allied armies in World War 2. Generally they conducted their operations on

sound strategic and tactical principles. They made few mistakes, but every time they neglected principles and rushed bull-headedly upon their objective they suffered a severe rebuff.

Much admiration has been lavished on the Israelis for the heroism and tenacity with which they defender their isolated villages and fought their way to victory. Admiration was never more richly deserved. Yet the record shows that they had no monopoly of courage. Many an Arab village was defended with the same dogged tenacity. And the Arab and Egyptian soldiers showed that they knew how to die. For instance, a detachment of the Arab Legion held the police post at Latrun. On the roof they had a single gun. When the Israelis isolated the post and attacked with infantry and armour, a strange duel took place between the solitary exposed gun and the five Israeli tanks. The gun crew were all killed, but fresh men instantly replaced them. Whenever a gunner fell a new man rushed forward from cover to take his place. In the end the gun won, knocking out all five tanks.

Then there was the case of the Egyptian detachment cut off at Faluja towards the end of the war. Isolated, short of supplies and ammunition, compressed into a tiny perimeter, these men refused to surrender, and fought on until the final armistice put a stop to the fighting. Then the Israelis permitted them to march out with their arms and equipment.

The war established the State of Israel on a strategically and economically precarious basis in the heart of a hostile Arab world. It left a legacy of hate and 800,000 Palestinian Arab refugees to keep it alive. It left the Arab nations convinced that better training, better equipment and more unity of effort would have carried them to success. And it left the Israelis with the knowledge that they had won only the first round, that sooner or later their enemies were bound to try *again*.

Major O'Ballance concludes his book with a question: "Will the British withdrawal from the Suez Canal Zone increase the chances of a new flare-up? The outlook is not a hopeful one."

No, indeed!

**SHOULDER-BELT PLATES AND BUTTONS. By Major H. G. Parkyn, OBE. (Gale and Polden, Ltd., Wellington Press, Aldershot, England.)**

This beautifully illustrated book —it contains some 550 illustrations —is a mine of information about the regimental histories of regiments of the British Army. In addition to illustrating the shoulder-belt plates and buttons of the regiments, the author quotes the authority for the designs and gives the regimental titles and battle honours granted during the period covered in the book.

While the book is not likely to have a wide general appeal to the Australian Army, it is a valuable reference work for the collector. Anyone interested in the histories of British regiments will find in it much authoritative information.