

*Capt. J. J. ...*  
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# AUSTRALIAN ARMY JOURNAL

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The views expressed in the articles in this journal are the authors' own and do not necessarily represent General Staff opinion or policy.



Photo: Australian War Memorial, Canberra.

## NEW GUINEA

In July 1942 a Japanese force landed in the Buna-Gona area on the north-eastern coast of New Guinea, and advanced on Port Moresby across the Owen Stanley range to Imita Ridge where it was finally halted on 17 September. In a costly counter-offensive, Australian troops drove the Japanese back across the Owen Stanleys and captured their base at Buna.

While these operations were taking place another Japanese force, advancing from Salamaua, was checked almost on the edge of the vital airstrip at Wau. A long and arduous counter-offensive through a tangled mass of high ridges and deep valleys drove them back and recaptured Salamaua.

The picture shows Australian troops examining Japanese defences in typical jungle country between Wau and Salamaua.

# WORKABLE, ACCEPTABLE AND SAFE

Major P. J. Norton,  
Royal Australian Artillery

**"It is possible for an officer to serve for many years in the army and to reach high rank without producing a single original thought."**

OFFICERS will offer original thoughts and ideas, but how often are these nothing more than an amalgam of other men's ideas, the results of discussion and research or the logical outcome of a methodical examination of a set of facts or circumstances. They are not the result of original thought by one person.

An officer is faced with many obstacles to original thought. Unless he recognises them as obstacles to be surmounted he will come to regard them as valid reasons for being unoriginal and eventually as excuses for lack of serious thought. The very nature of army life is an obstacle.

A young officer is busy learning his job and looking after his men. This is a difficult enough task without complicating it with his own original ideas. He must master a mass of facts and techniques and he is taught to react instinctively to

certain sets of circumstances. In his early service he will find that attempts at original thoughts will clash with loyalty to superiors and the army. He is not experienced enough to cope with this and since any lack of loyalty is liable to be detected and dealt with, he takes the only course he can see open; he gives up any attempt at original thought.

After several years in this atmosphere he finds himself posted as a junior staff officer. When faced with a problem he will usually react to a set pattern. He looks up all he can about the matter and talks to people who may have some knowledge of it. Then he takes a blank sheet of paper and starts to write. There is no greater enemy of original thought than a sheet of paper which must be filled up. However, he will produce an answer which is workable and is acceptable to his superiors, but his

own contribution is only that of a machine which collects, collates and writes. At this stage of his career his method of working and thought will start to crystallise and he will progress through a series of staff and regimental postings producing workable and acceptable solutions. He will get a name for being reliable and will be regarded as a safe officer, one who never does anything wrong and always produces an answer. No doubt a great deal of hard work has gone into the gaining of this reputation but the main ingredient is a complete lack of original thought.

By the time he reaches command or senior staff level he is set in his ways. Thus we see the commander whose thought pattern is the same as that of a junior officer. He still reacts very much by instinct; this type of reaction is essential for survival at lower levels but it is the weapon of the wild animal, not of a reasoning human being. He is conversant with the current doctrine and military techniques. When faced with a problem he tries to bend it to fit the doctrine and techniques instead of mixing them with some original thought and action to allow them to solve the problem. Provided he is well backed up and supported he will continue to produce workable and acceptable solutions. However, if he is thrown onto his own mental capabilities he is liable to fail. He is unable to see anything but the immediate problem and cannot cope with the fact that a reasoning and

original enemy is able to get the better of his wild animal thought process.

The staff officer has a better chance of survival. His junior staff will present him with workable and acceptable recommendations. If they don't they can be sent away to think about the matter again. Unless he realises that the work of his staff is only a basis for thought by himself he will become a mere rubber stamp for other men's ideas. His own solutions to problems will become more and more academic as his imagination cannot give him a picture of the circumstances surrounding the facts he is dealing with, nor can he visualise the effect of his actions on units and subordinates. He may set his mind at rest by means of staff checks, but without imagination these are worthless.

Neither of these officers is fit for higher command; however there is nothing to say they will not get it for it is most unlikely that they have ever done anything that would stand against them.

The required forms and conventions of army life do not lend themselves to original thought. However, they are necessary; orders and instructions must be presented in a set form for the sake of clarity and accuracy, and it is often the customs and traditions that allow an army to stand firm when all else fails. The common mistake of the young officer is to try to think within the bounds of form and convention. He must learn to think outside

these limits and express the results within them.

The increasingly complicated and technical nature of war has produced two further obstacles to original thought. It is not possible for a commander to be an expert in all fields so he must rely on the advice of experts, nor can he be expected to sort out the mass of detail relevant to a problem of war. The result is the planning team or committee and from these we get the group decision. Each member of the group thinks within his own sphere and the result is a compromise of many conflicting ideas. A workable and acceptable solution will be found but it is most unlikely to contain any original thought. The commander must regard the deliberations of the group as a basis for his own thought and not as a ready made set of decisions.

The technical and scientific training an officer receives forces him to master rigid techniques and to absorb a mass of facts. He learns a scientific approach to a problem; a step by step progression towards a solution, each step based on fact or experimental proof. It is very easy for him to forget that the greatest scientific discoveries resulted from a lot of original and often unorthodox thought, not from test tubes and mathematical calculations.

One of the greatest obstacles to original thought is that infallible formula for success — The Appreciation of The Situation — by ....., at ..... (place), at ..... (date and

time). Here the officer considers all the relevant factors and arrives at a series of conclusions; he then examines the courses open to our side and the enemy and decides on the course he will adopt. By carrying out this process and adopting the most attractive course he is bound to arrive at a workable and acceptable plan. The formula will produce a solution with a minimum of thought, yet it is intended to do anything but. It is designed to produce a sound basis for thought. The answer to the problem must come from a human mind. A commander who puts down his pen after he has dealt with the factors, shakes off his experts and staff and goes for a walk, may be considered eccentric but he will produce a better plan than the one who writes his way steadily through from aim to plan.

An examination of the borrowing cards of books in military libraries shows that those of factual accounts of campaigns and battles are well filled and those of biographies of great leaders contain a lesser number of names. The number of names in the latter group seems to depend on the attractiveness of the dust cover. The cards of books on the philosophy and nature of war are virgin. This is an indication of a scramble for facts rather than a search for knowledge and understanding of the forces and reasoning behind events. The works of military thinkers such as Clausewitz, Liddell Hart and Sir John Slessor are little read. Many officers can quote a



saying or two of Clausewitz but few knew the reasoning that led up to these conclusions. Fewer still will challenge this reasoning and use it as a basis for original thought by themselves. The intellect of the soldier-scholar is being replaced by the analytical mind of the soldier-scientist.

There is a danger that the army will produce a mass of technically competent, safe and reliable officers. In this mass it will be increasingly difficult to find officers of the intellect and originality of thought required for higher command. An officer can get by without any need for original thought and there are no schools or courses that will demand this thought.

Officers must be encouraged to think early in their careers and

to produce ideas of their own, no matter if they are unworkable, unacceptable and unsafe. At least they will be the outcome of original thought. The philosophy of war should come into an officer's study and instead of writing all his essays and papers on concrete subjects which are covered by a mass of references he should be forced to write on abstract subjects where the only reference is his own intellect. The army could even trade some of its Bachelors of Science for a few Doctors of Philosophy.

Unless this trend away from original thought is halted we will end up with an army that is completely workable, acceptable and safe — even to an enemy.

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Too many written orders give too many opportunities for misunderstanding. The best thing is to tell 'em and if they don't understand sack 'em.

— *Montgomery.*

# THE CASE FOR SPECIAL FORCES

Major P. H. Bennett  
Royal Australian Infantry

"The war starts at midnight"

— "Colonel Blimp"

IT IS JULY 196—. The place; deep in the jungle at the command post of the 404 Phantom Regiment, a regular guerilla force operating in the area of 1 Australian Division. Brigadier Go Nogo, Commander of 404 Regiment, has just entered the briefing hut with key members of his staff. He has received orders to ambush 1 RAR en route to occupy an encirclement position to trap 301 Division Headquarters. The task must be completed during the next twenty-four hours. He has already formed a plan and is about to discuss it with his staff prior to issuing orders by radio to assemble his dispersed battalions in the ambush area.

Go Nogo is pleased with himself. As a battalion commander in the battle against the French Mobile Force 100 he had distinguished himself and received his present command shortly afterwards. Quickly he outlines his plans. His staff settle down to

work out the details of the coming operation. Movement must begin tonight if the regiment is to be in position under the cover of darkness. Suddenly a shot is heard outside. The door to the hut bursts open and three men wearing the uniform of the Australian Special Forces Regiment storm into the room. Fire from two machine guns quickly disposes of the Phantom personnel. One soldier methodically destroys all papers and maps while another smashes radio equipment. Their task complete, the group moves out to rejoin their support team before disappearing into the jungle.

The resulting situation within 404 Regiment can be imagined. The headquarters must be reinforced by key personnel and equipment before it can function. A once co-ordinated guerilla formation is thrown momentarily into hopeless confusion. It is temporarily without direction and control. All this

accomplished by a skilful and highly trained section of special force men.

Far fetched perhaps, but the history of the Second World War and the war in Indo China confirm the credibility of special force operations in South East Asia. Australian "Coast Watcher" reports made possible the success of an Allied naval force in the Solomon Islands. Spectacular results in organising local guerillas were achieved in Sarawak and Borneo where the warlike Dyaks were turned against the Japanese. The exploits of an Australian and British party in sinking 39,000 tons of shipping in Singapore harbour in 1943 are now well known. More recently the raids by black clad Viet-Minh forces during the siege of Dien Bien Phu were credited with causing enough damage to French and American equipped and staffed air bases to cut off the equivalent of a full division's air supplies each week. Currently in South Vietnam local guerillas are achieving some success in the fight against Communist insurgency forces.

#### Future Operations

Revolutionary or unconventional war is the war being fought in Laos and Vietnam. It is the type of war which the French fought and lost in Indo-China. It is a technique which the Communists have learned to employ effectively and one which they will continue to exploit to gain their strategic objectives in South East Asia. Consequently an Australian force committed to this area must be

prepared to combat a serious subversive and insurgency threat as well as the conventional tasks which may be allotted to it.

The pattern of unconventional warfare has been found to be:

- (a) Organisation of base areas including "active sanctuaries" where possible, establishment of local cadres or cells, and the training and enlistment of local support.
- (b) The gaining control of the civil population by political indoctrination and terrorism.
- (c) Employment of local and regional guerillas to harass and ultimately destroy enemy forces.

In the past guerilla tactics have been based on dispersion, mobility, subterfuge, surprise, sound intelligence and hit and run action. To achieve their aim these forces strike with superior strength when success is assured. They are ruthless, unconventional and unpredictable. They attempt to conduct a mobile offensive to cause a dispersion of enemy forces. When this is achieved he is destroyed piecemeal. Their defence is based on inherent mobility and an effective intelligence network of local civilians and agents.

Counter operations by conventional forces will only be possible when suitable information is available. This can be obtained by ground and air reconnaissance, surveillance devices, and special reconnaissance units. It must include detailed

knowledge of the enemy's rear areas within the theatre if action is to be taken to destroy his ability to fight. Ground forces will be necessary for target acquisition, harassing operations, and destruction of key personnel and materiel not vulnerable to other means of interdiction. Against an enemy far superior in manpower and with assumed parity of weaponry, the answer lies in the disruption of the enemy's maintenance system and the destruction of vital equipment.

Operations against guerilla forces will rely on similar intelligence. Detailed information concerning base areas, sanctuaries, supply routes, civilian contact areas, local population, communication systems, hides, enemy personalities and equipment, will be necessary before successful counter operations can be launched. Conventional forces armed with this information could divorce enemy forces from their support areas and the civil population. They could then plan and mount operations within their capabilities to destroy him.

This intelligence will only result from preparatory activities in the likely areas of future operations. An espionage system based on local identities must be established. This covert intelligence system could not be organised by the Army but overt regular units will be needed to carry out difficult reconnaissance missions and to organise civil support for conventional forces. Specially trained men will be required to assist and advise locally raised forces for

operations against guerillas on their own terms. These anti-guerilla forces must operate in small groups deep into enemy areas for extended periods. They must have the ability to concentrate and destroy located guerilla units. In this way conventional forces will be released for other offensive tasks as guerillas are kept on the move and isolated from the local population.

An important feature in the employment of Special Forces will be timing. Failure to train teams in peace for probable target areas will result in a failure to combat the threat for some time after conventional forces are committed. The current situation in South Vietnam shows the problems which arise as a result of anti-subversion and anti-insurgency measures being applied too late.

#### Future Tasks

The concept of operations indicates a vital need for conventional forces to possess an anti-insurgency capability. To operate successfully these forces must be trained in stay-behind techniques, infiltration and anti-guerilla tactics. They must be capable of air mobile operations, limited airborne operations and superior ground mobility to operate quickly when speed is more important than stealth.

The problems of ground reconnaissance and surveillance show a primary role for the Special Air Service company in support of the division. The organisation and equipment of conventional units does not fit them for this role. They are designed to operate as a tactical

entity. Their employment in small packets is precisely what the enemy will want us to do. It would also be unwise to load this reconnaissance unit with further tasks which would limit its capability. A large number of specialised reconnaissance tasks on the front, flanks and rear of the enemy will be required in the future.

Special Forces will be required to reconnoitre, harass and disrupt the enemy's combat capability. Operations aimed at supplies and material could pay handsome dividends in a war against an enemy rich in manpower. Objectives no conventional forces could seize without long and costly operations could be reached by teams of resourceful men before the enemy could react. Many targets considered ideal for strategic bombing could be dealt with effectively and economically. Against an enemy, adept at deception and camouflage, targets will be difficult to locate or attack from the air. Men can strike more surely and more accurately than aircraft which may be detected at long ranges by radar. These operations would cause the deployment of enemy security forces out of all proportion to the effort and cost to themselves.

In unconventional war the value of specially trained forces in a deep reconnaissance role has been emphasised. Currently on the order of battle are part-time commando units specialising in raiding technique. In view of the problem of operations in South East Asia it is

suggested that these units, available only after mobilisation, are inadequate. They must be spearheaded by a regular force. The special forces required must train to operational readiness in peace. They must be capable of highly specialised ground reconnaissance and of organising local anti-guerilla forces. This will involve the highest possible infantry and commando skills, language training, area indoctrination, theatre reconnaissance and training, and special communication training. Teams should be organised for employment in selected operational areas and should include weapon experts, long range wireless operators, medical and demolition specialists. Teams of this composition and training could then serve a dual role as long range raiding forces and embryonic anti-guerilla forces.

Other fields in which Special Forces will operate are in the struggle for support of the local population. They must be suitably indoctrinated in politics, sociology, history, economics and religion to allow them to influence local inhabitants and encourage them to support our ground forces. There is a need for them to be well versed in the art of espionage and control of local agents to obtain information about the enemy including the local or part-time enemy guerilla. They must be prepared to operate ruthlessly against enemy informers and supporters if they are to survive.

To obtain the necessary training teams could be made available as advisory training groups

to friendly countries in South East Asia. An opportunity to do this occurred recently in South Vietnam when a request for instructors was met by Australia. There is little doubt that similar opportunities will arise, or could be arranged, in the future.

### Conclusions

Conventional forces must be trained in air mobile operations, limited airborne operations, stay behind and infiltration techniques to fit them for counter guerilla operations.

The role of the Special Air Service company must be confined to air, sea and ground medium and long range reconnaissance in support of the division. In this they must be superior to any Asian soldier.

Regular and part-time Special Forces should be raised to give an Australian force the immediate capability of beating the enemy at his own game. They must be prepared to introduce a few rules of their own. These forces will be required for deep reconnaissance, harassing and destruction raids, for raising

local anti-guerilla forces, and as a basis for an efficient intelligence network in any future theatre.

The regular component of these Special Forces should consist of the spearhead teams who could be employed at any time as advisers in friendly countries. Part-time units would be required to supplement and reinforce the initial deployment of these forces.

Warfare has changed. If small groups of well trained, dedicated men can assist, let us use them. If it means teaching underhand tactics such as assassination and spying, let us teach them. The next war will not be fought in accordance with agreed rules. Success in South East Asia will depend on our ability to fight an unconventional war. The "three up and two back" exponent will find himself out of his depth. Our present organisation and training perhaps meet the requirement half way. The implications and probable results of employing Special Forces in support of conventional forces make them deserving of our close study.

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E. R. A. Garret,  
Department of the Army

**N**OTWITHSTANDING the sorrow at the death of Queen Victoria, what an exciting period circa 1900 must have been for Australia! Among the notable events a century dawned, a nation was born, a male Monarch came to the throne, an Australian Contingent of soldiers first went to war and a symbol came into being — the "Australian General Service Badge", popularly known as the "Rising Sun".

The telegram shown in Figure 1, dated 7 February 1902, was the birth of a badge that has held a place in our military history, and in the history of the nation over the whole of its existence.

It has been worn proudly by Australian troops engaged in the South African War, World Wars 1 and 2 and in the interval

between those wars. Although the great majority of soldiers now wear Corps or Regimental insignia, the "Rising Sun" badge is still the General Service Badge for the Army and would probably again be worn by everyone in the Army in time of war.

There is so much history and tradition associated with the badge that it is felt that soldiers of today, particularly younger members who have joined since the last war, should be aware of its background.

#### Research and Records

Military historians and Heraldic Societies in Australia have long been interested in the origin of the badge and much research has been undertaken and many papers have been presented as a result. There is a great deal of information avail-

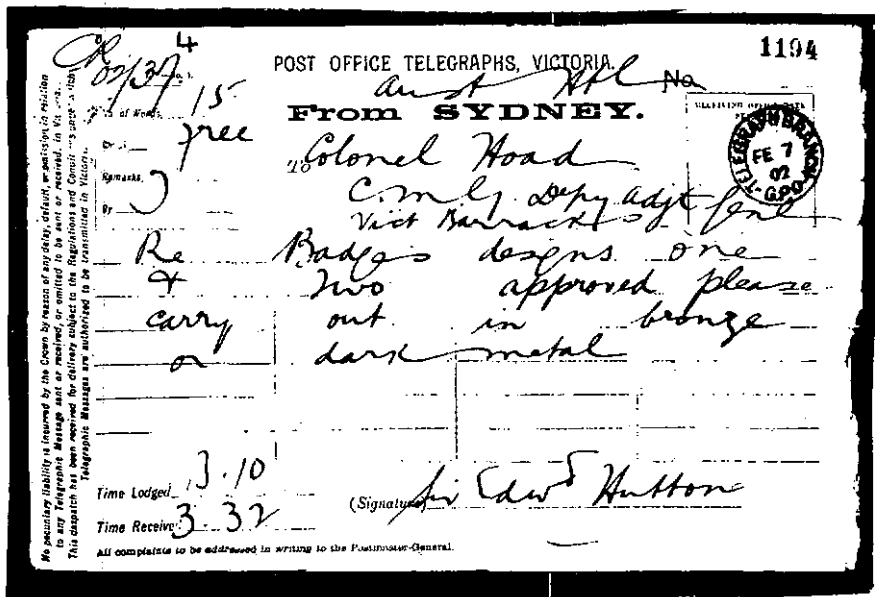


Figure 1

able from a study of archival files; but files reveal only those facts which have been recorded. Reasons, impressions and significance are often lacking and, of necessity, some aspects of the history and heraldic content of the badge must remain as conjecture.

### Why a Badge?

Of the many causes which make a soldier so inordinately proud of his regiment, his Corps, or his Service, certainly foremost among them is the possession of a famous motto, a popular nickname or a distinctive badge.

Many Australian regiments raised in the several colonies of the old Volunteer and Militia days of pre-federation had their distinctive badges; but, unfortunately, no specimens of

these have been preserved to our knowledge. However, it is thought unlikely that any of those badges had any great bearing on the evolution of the badge as we know it today.

### The Origin and 1902

The author of the telegram shown in Figure 1 was General Hutton, who had been appointed to command the Military Forces of the Commonwealth with his headquarters at Victoria Barracks, Melbourne. Above his door he had fixed a trophy of arms. The trophy comprised a semi-circular board, painted red, on which bayonets and sword bayonets were arranged alternately, surrounding a crude design of a crown cut from sheet brass.

The weapons employed to effect the design were the



Martini-Henri rifle socket bayonet, triangular in shape; and the cut and thrust sword bayonet, shown at Figure 2.

In 1902 when the 1st Battalion of the Australian Commonwealth Horse was being raised for service in the South African War, General Hutton decided that the force should have a special badge. As it was the first "General Service" badge to be issued to an Australian contingent of troops for overseas service, it is reasonable to assume that the young Com-

monwealth of Australia, just one year old, was to be represented on the badge. The newly appointed GOC would find this highly desirable as it was his responsibility to weld into one force the various state units embarking for South Africa. Tradition has it that he would have nothing to do with kangaroos, emus or wattle; he wanted something martial and, pointing to the trophy over the door said, "Why not have something like that?" Three pencilled designs were submitted by a

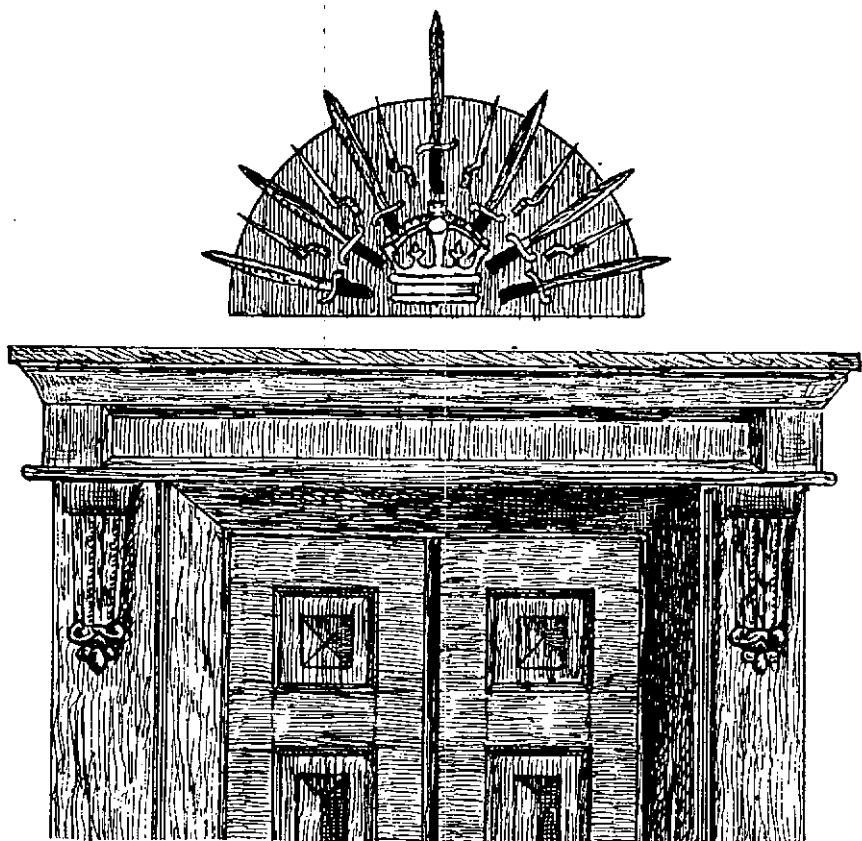


Figure 2



Figure 3

Melbourne firm of die-sinkers which resulted in the approving telegram. The actual badge produced was to the design shown at Figure 3 and the designs 1 and 2 approved by General Hutton in his telegram referred to a large and to a small version as headdress and collar badges respectively. A supply of the badges was hurriedly manufactured for the 1st Battalion of the Australian Commonwealth Horse. Records show that the first contingent was due to leave on 12th February (just five days after the approval) and the intention was stated that "even if the badge could not be done in time for the first boat, they could be sent on by one of the others to be issued at Capetown when the Battalion gets together". (There were, obviously, eleventh hour "flaps" in those days also and limited knowledge of naval parlance.)

In detail this badge consisted of seven rays or star points, made up of triangular shapes above AUSTRALIA and the Crown; all on a wreath base.

Having a Mk. 1 version for the first contingent must have provided a breathing space to have another look at the badge, because subsequent contingents



Figure 4

were provided with the design shown at Figure 4. It will be noted that the rays were altered playing down star points and substituting more definite intermediate points. The metal around the word AUSTRALIA was pierced, possibly to display a piece of coloured cloth underneath.

Later, but still in 1902, another badge was provided for the Australian Coronation Corps which proceeded to England to represent Australia at the Coronation Celebrations of His Late Majesty King Edward VII. That design is shown at Figure 5. The base had been altered to a scroll with the words COMMONWEALTH HORSE inscribed.

1902 may have been a good year for Burgundy; but it was a

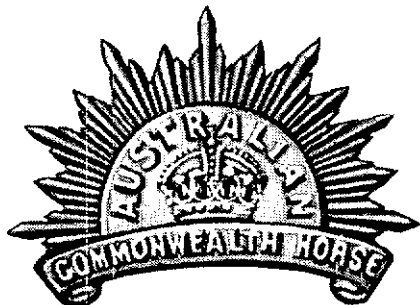


Figure 5

bad one for badges. The Research and Development Organisation of that time must have been plagued with projects during those months.

Let us have another look at the 1902 output (Figures 3, 4 and 5.) A theory is postulated that there was greater significance to the badge than the "sword/bayonet" concept attributed as General Hutton's original idea — especially on the first and second designs.

### Was There An Heraldic Concept, A National Concept, or Both?

Although discovered officially only in 1697, the Southern Cross had been in our heavens since the beginning of time. It is known that the earliest settlers found it very valuable for navigation in the bush and what more likely than that they saw stars as symbols of their new country, freedom and independence? It is very evident that some did, as instanced by the late Peter Lalor who, at the Eureka Stockade, created as his standard a plain blue flag adorned with the stars of the Southern Cross on 29th November, 1854.

On 1st January 1901, the day of Australian Federation (now Australia Day), it was realised that the fledgling nation had no flag of its own, no emblem of its unity and no ensign charging its loyalty to the Sovereign. The Melbourne *Herald* launched a nation-wide contest for suitable designs and the Federal Government raised the prize money for the contest to £250. The judges considered that a

Commonwealth flag, to be representative, should contain the Union Jack to stand for Great Britain, the Southern Cross to represent the Continent and some symbol to signify the unity of the States. Included in the comments of the judges on the chosen design were these words:—

"Federation of the States is represented by the Star in the lower half of the hoist."

That star became the Commonwealth Star, originally of six points, one for each of the States as they then existed. Later, a seventh point was added to represent the "Territories administered by the Commonwealth Parliament".

In 1908 the Arms of Australia was approved.

The Crest of the Arms of Australia is a seven-pointed star mounted on a wreath and is shown at Figure 6, together with the Royal Arms, the Crest of the Royal Arms and the Arms of Australia. It is common practice to separate the Crest from the Arms and use it as an insignia. For example, the Royal Arms is the rank insignia of a Warrant Officer, Class 1; the Crest of the Royal Arms is the headdress insignia of Colonels and Brigadiers and, when surmounted on a laurel wreath and with crossed sword and baton is the insignia of a General Officer.

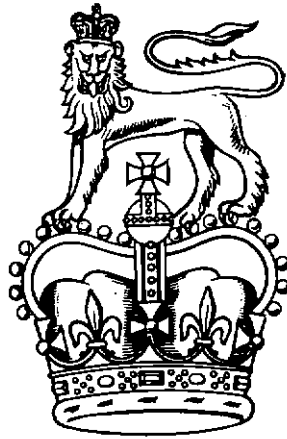
The Royal Warrant described the Crest as "... for the Crest on a Wreath Or and Azure a Seven Pointed Star Or ...". Literally, "the Crest is a seven pointed gold star on a gold and blue wreath".

(A)



THE ROYAL ARMS

(B)



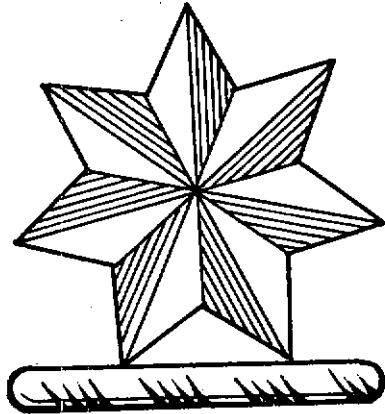
THE CREST OF THE ROYAL ARMS

(C)



THE ARMS OF AUSTRALIA

(D)

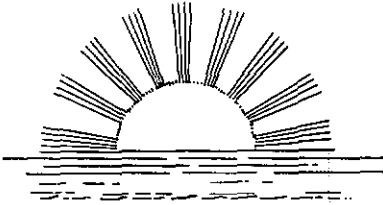


THE CREST OF THE ARMS OF AUSTRALIA

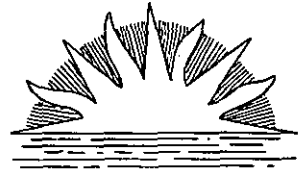
Figure 6

The wreath is symbolic of the mantle of a Knight which, when furled, showed two colours — the gold lining and the blue outside material. (Readers may note that the reverse of a six-

pence shows the Crest at the top of the Arms of Australia and that the recently published illustration of the 50-cent piece of our future currency also incorporates the Crest.



The Rising Sun.



The Setting Sun.

Figure 7

When one notes that the Wreath constituted the base of the first two designs of the badges, it is clear that an heraldic symbolism was intended in these designs; this thought goes further than the Wreath if one assumes that the Commonwealth Star is also present in the original badge, but merely varied from a circular to a semi-circular shape.

It seems very likely that the designers of these early badges had in mind the Commonwealth Star as the image of the Commonwealth in 1902 as had been accepted in the design of the National flag in the previous year.

It is fortuitous perhaps that the trophy of arms over General Hutton's door consisted of seven major and six minor points. Who knows though, some astute staff officer may have seen a glorious opportunity to "kill two birds with one stone" and do the right thing by General Hutton and the Commonwealth!

Unfortunately records do not disclose the sequence of events at that time, i.e., whether the gesture of the GOC towards the trophy of arms preceded the approval given for the first badge or whether it occurred

subsequently. I tend to the view that it was in the reflective time whilst the Mk 1 version was being produced — hence the change from clean edges to the serrated in the two earliest badges. But this is conjecture.

#### The Origin of "Rising Sun"

Before leaving 1902, it is appropriate to clarify the origin of the term "Rising Sun".

Rumour had it that the badge represented "an emblem of a new nation rising in the Southern Seas at the time of Federation of the Australian States". However, this suggestion has always been refuted.

There is nothing in the design of any of the badges to indicate any link with the "Rising Sun" in heraldry.

"Rising" and "Setting" demi-suns are portrayed always on the heraldic form shown at Figure 7.

The origin of the "Rising Sun" title given to the badge, curiously enough, is connected with a brand of jam. Until about 1906, the only building near Victoria Barracks, Melbourne, was Hoadley's jam factory, which produced the well known and universally advertised "Rising

Sun Jam". One of the jam tin labels is shown at Figure 8.

Large quantities of Hoadley's jam were issued to Australian troops in South Africa and the similarity of the badge of the Australian Commonwealth Horse to Hoadley's trademark caused the returned servicemen, at least in Melbourne, to be given the satirical nickname of "Hoadley's Horse". From such a simple beginning, I suggest, sprang the universally known expression, "Rising Sun Badge".

#### Variations on a Theme

In 1903, when the new Commonwealth uniform was introduced, it was decided that a General Service badge should be adopted. The services of J. R. Gaunt & Son Ltd. (Birmingham) were requisitioned to produce a design "somewhat similar to that used by the Australian troops in the South African War" and Mr. C. F. Gaunt, who was in Australia in 1903, sent home to England the particulars from which various designs were produced. Ultimately the one shown at Figure 9 was chosen.

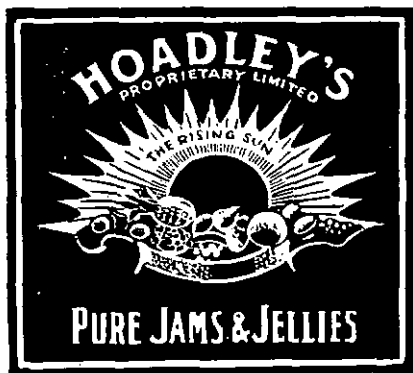


Figure 8

This badge "cracked the jack-pot" for design and, whilst minor variations have been made to accommodate different wording, the basic concept has survived the passage of time. It was made in silver and in one piece.

A similar badge design, but in three coloured pieces, was worn by the Administrative and Instructional Staff. The three pieces comprised:—

- (a) Crown and rays of gold;
- (b) Backing to the Crown of red enamel;
- (c) Scroll of silver.

When universal training was introduced in 1911, the badge shown at Figure 9 was mass produced. In configuration it was identical with that produced in 1903; but was made of oxidised metal with a bronzed appearance. This was adopted as the General Service badge for the 1st A.I.F. With the establishment of the Australian Instructional Corps after World War I, a special badge was introduced for that Corps. Details are shown at Figure 10. This was a one piece badge identical with that worn by the Administrative and Instructional Staff except that the scroll was of blue enamel with gold lettering.

During World War 2 the badge at Figure 9 was again introduced. It continued in use after 1945 until Corps and Regimental badges were produced. In 1949 the title on the scroll was changed to that shown at Figure 11. This is still our General Service badge and

is still worn by personnel of those Corps which do not possess a Corps badge.

### The Scroll Intrudes

Note that, in the badge worn by the Coronation Contingent, the Wreath had been replaced by a scroll. At once this slight modification removed the most obvious heraldic portrait. Why was this done?

### Why a Scroll?

What is the purpose of a scroll? It is a vehicle upon which to hang words — and that's all.

If a badge needs a wordy explanation endorsed on it the designer has failed in his task.

The scroll on the badge of the Commonwealth Horse was devised to fit that wording; when the expression "Australian Commonwealth Military Forces" was to be used a different scroll design was necessary. No alteration was required to it when "Australian Instructional Corps" and "Australian Military Forces" were used because the letters could be jammed or spread a little.

The scroll has therefore been a convenient medium over the years to signify the identity of those who wore the badge, but would never have been necessary if the badge had not been used for different groups at various times. If used solely as a General Service badge, there is a strong argument in favour of having no wording at all. But if we had no wording, what would happen to the scroll? A scroll without words would look very odd, and the badge without

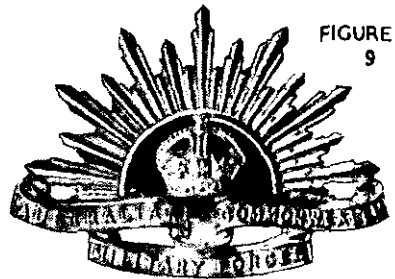


FIGURE  
9



FIGURE  
10

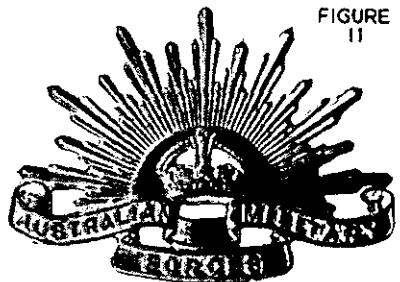


FIGURE  
11

a scroll would lose much of its now familiar appearance and traditional shape.

### What of the Future?

That we must have a General Service Badge goes without saying. There is also a growing and pressing need for the Australian Army, in common with all other armies, to display on many occasions a device or emblem as a Crest. What could be more appropriate than using a repre-

sentation of the General Service Badge for this latter purpose?

Since the accession of Her Majesty, Queen Elizabeth II, the style of the Crown has been changed, by Royal Command, from the Tudor to the St. Edwards. We are therefore committed to changing the design of the badge to incorporate the Edwardian Crown in any future production of the badge.

Whilst this is being done, should we not just glance back over its history and take particular note of the significant features of the early designs in which our Arms were depicted

as protecting both AUSTRALIA and the CROWN. Whether this was by clever design with a watchful eye on heraldic motif, or whether it was by accident, we might never be certain, but in any case, the sentiment is something that surely must appeal to every Australian.

When the badge goes into production again, should we, whilst retaining the general appearance of the present one, also somehow infuse into it the appealing loyalties portrayed by the heraldry of the early designs of the Australian Commonwealth, defending itself and its Monarch?

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"You can't fool the men. You will get an officer sometimes full of shout and swank, an' 'e'll pull 'em through it, an' strafe 'em, an' then walk off parade feelin' that 'e 'as put the fear o' God into 'em. Well, 'e 'asn't. 'e thinks they respect 'im, an' all they think is that 'e wears a Sam Browne belt, an' they wear one waist, web, ditto."

— From "Her Privates We"  
by Frederic Manning.



# LASERS

Captain A. J. A. Cooper,  
Royal New Zealand Corps of Signals

**T**HE LASER is a very recent development which would seem to offer enormous possibilities in many fields. As many of the Laser's possible applications are of a military nature, members of the Services should keep a watching brief on Laser developments and applications.

This article sets out to provide a starting point for this "watching brief", and it will begin by looking at the history of the development of the Laser. This will be followed by a simple explanation of how the Laser works, which will be followed in turn by a look at some of the possible applications of this device.

## History of Development

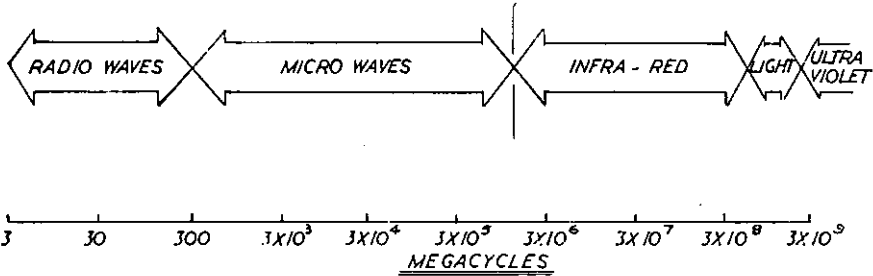
The Laser is a direct development of an electronic device called a Maser. The first Maser was operated in 1954 though the basis of its operation was foreseen by Einstein in 1917. The word Maser is an acronym for Microwave Amplification by Stimulated Emission of Radiation. It is a device developed to amplify or to produce microwave oscillations of much shorter wavelengths than were possible with previous techniques. Its working will not be considered here as a similar mode of operation is employed in the Laser.

Active research in the Laser field began in 1958 when it was realised that the Maser principle could be extended into the infra red and optical regions of the electromagnetic frequency spectrum. (See Figure 1.) Research was greatly stimulated in 1960-61 with the appearance of the first operating Lasers. The word Laser is also an acronym — in this case derived from Light Amplification by Stimulated Emission of Radiation. The device is frequently called an optical Maser. When it operates in the infra-red region of the spectrum it is sometimes referred to as an Iraser.

## How the Laser Works

Electrons can exist in various energy levels or orbits around the nucleus of an atom. If the electrons are disturbed (or stimulated) by an electromagnetic wave (in this case light waves) two things can happen. Firstly, an electron can absorb energy from the wave and move to a higher energy orbit around the nucleus of the atom. Or secondly, if already in a higher energy orbit, it will descend to a lower energy orbit and impart its released energy to the original stimulation.

Let us see how this works in practice. (See Figure 2.) Electrons are stimulated to a high



THE ELECTROMAGNETIC FREQUENCY SPECTRUM. THE DIVIDING LINE MARKS THE POINT ABOVE WHICH IT IS DIFFICULT TO GENERATE SINGLE FREQUENCIES.

Figure 1

energy level by an intense burst of light falling on the active material of the Laser. Some of these electrons immediately fall back to a lower level and in doing so give up energy in the form of light. This light stimulates other high energy electrons and they too descend, giving up more light as they do so. As

these successive steps of giving up light occur in a very short space of time it is necessary, for continuous operation, to keep the active material of the Laser bathed in light. Then, as soon as the electrons fall back to lower energy levels they will absorb more energy from the outside light source, rise to higher energy levels and so on,

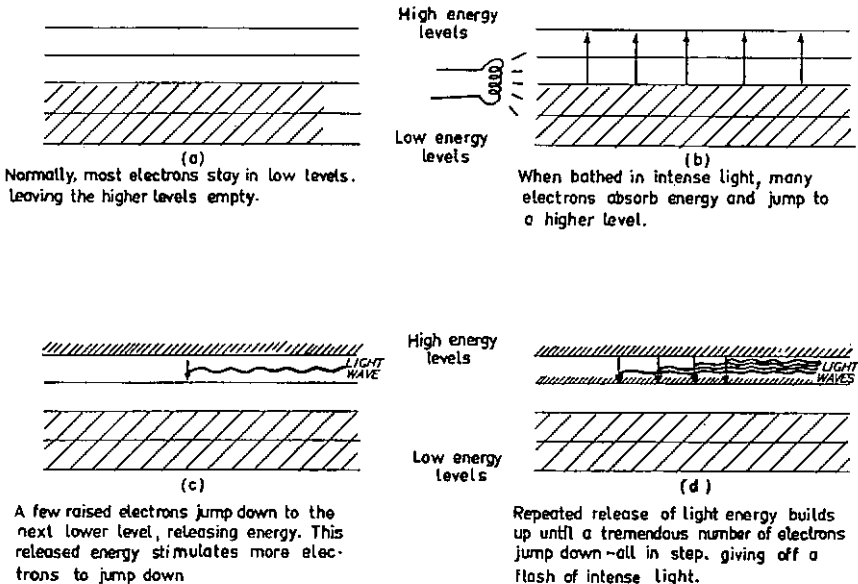


Figure 2

thus keeping the Laser operating.

There are several striking features about light produced from a Laser. Firstly each descending electron produces light waves that are in step with those produced by its predecessor. The first stimulated wave is therefore reinforced or amplified many, many times. This results in light of extreme intensity. Secondly, the light occurs in a very narrow beam. Thus the intense light of a Laser tends to remain concentrated in a narrow beam. (A Laser beam, three feet wide at the source, would only be about a thousand feet across if directed on to the surface of the moon.) Thirdly, the light is of one frequency in contrast to ordinary light which is composed of many frequencies.

Most of the present day Lasers have, as their active material, a rod of artificial ruby a few inches in length and about a quarter of an inch thick. One end of the rod is silvered while the other is only partially silvered. Surrounding the rod is a coiled electronic flash lamp which provides the outside stimulation required. When the lamp is flashed the process described above occurs, the stimulated light being reflected back and forth within the rod until it is of such intensity that it passes through the partially silvered end of the rod.

#### Applications of the Laser

We will first consider applications which are currently in use or are likely to be in use in the near future.

#### Medicine

A delicately controlled Laser developed by the American Optical Company has been used to remove a tumour from the retina of the eye. The removal is achieved by focussing the Laser beam on to the affected part of the eye and burning out the tumour. The operation takes one thousandth of a second. An experimental technique has been evolved to "spot weld" detached retinas by means of a Laser beam. There appears to be no reason why the medical applications of the Laser will not become more extensive.

#### Ranging Device

Light from a Laser can be focussed with far greater precision and simplicity than can the longer microwaves used in a conventional radar. The need for large aerial arrays disappears in an optical radar system. A prototype optical radar built by Sperry Rand for example, weighs 25 pounds complete and is able to distinguish between two cars parked side by side at a distance of five miles. Such a system is called COLIDAR (Coherent Light Detecting and Ranging).

The precision of the optical radar system is such that it can detect movements of fractions of an inch per second. This characteristic could be applied so that aircraft could complete the final stages of touch down more safely. It may also be a valuable aid for space rendezvous.

Another ranging system at present under development is

called VEDAR (Visible Energy Detection and Ranging). This is an optical radar for underwater use. Ranges of 3000 feet have been achieved using conventional sources; greater ranges can be expected now that a "deep blue" Laser has been developed. The sea has a maximum transparency to light in the blue-green region of the spectrum and therefore the ruby Laser is unsuited for this type of work.

However, in both terrestrial and underwater conditions light waves are severely attenuated. It therefore seems likely that optical radars on earth will be confined to precision short range tasks such as attack radars or airport control radars.

### Infra-Red Sources

More intense sources of infra-red radiation are needed for the development of improved night surveillance equipments. This is particularly so in what is termed the "far" infra-red portion of the spectrum. The Laser promises to meet this requirement.

### Industrial Uses

Lasers have already been used to cut diamonds and other very hard substances, but this application has not yet been put to any commercial use.

We will now turn to look at the applications in the time span beyond the near future.

### Communications

In this field the Laser offers some very interesting possi-

bilities. The microwave region of the spectrum (see Figure 1) is roughly 300,000 megacycles in width. By way of contrast, the visible light region alone is 350,000,000 megacycles wide, so that a Laser communications system offers many more channels than its radio counterpart. A single Laser beam could, for example, provide enough channels to enable all the inhabitants of the world to hold simultaneous telephone conversations in pairs.

This enormous channel capacity is only able to be realised because the beam is composed of light at a single frequency. The beam can therefore be modulated with intelligence — this is not possible with ordinary light because too many frequencies are already present in the light itself to allow modulation.

The narrow beam of the Laser has two other advantages. Firstly, there is less power loss from a narrow beam of energy. Secondly, a measure of security is inherent in narrow beam radiations. Unless a receiver is in the transmission path of the beam it will receive nothing.

An optical system would be particularly valuable for inter-planetary communications, as even a Laser of modest output would be seen by the naked eye for many millions of miles. However, the attenuations suffered by a terrestrial system would necessitate special measures to protect the beam from effects it would find on earth. One proposal is to enclose the beam in a pipe filled with an

inert gas so that the composition of the transmission path would not vary. To overcome the curvature of the earth and other obstacles, lenses would be required to divert the beam to a new path. It has been calculated that a 400 mile hop could be achieved without amplification.

### **Weapons**

In the United States, Lasers that deliver 600,000 watts have been reported by Dr. M. L. Stitch of the Hughes Aircraft Corporation. Terms such as "beam directed energy weapons" have also been mentioned. The extreme concentration of energy that occurs in a high-powered Laser beam has given rise to the possibility of destroying a missile in flight by burning it with such a beam. As was mentioned earlier in this article, Lasers have been used to cut very hard substances but the problem in missile defence is to prevent the attenuation of the Laser beam by rain, cloud, dust etc.

This application need not be restricted to missiles. Tanks and men could well serve as Laser targets.

### **Power Transference**

From the higher regions of the earth's surface it may be possible to transfer enough power to operate a space vehicle in orbit around the earth. Lasers indeed may become one of the best forms of propulsion units for long inter-planetary journeys once the gravitational effects of the earth have been overcome by conventional rockets.

### **Conclusion**

The Laser, which at present is in its infancy, has already demonstrated its abilities in the fields of medicine and ranging devices. Its potential in the field of terrestrial or space communication can be appreciated. Possible applications of the Laser as a weapon or space propulsion unit may even be realised. It will be well worth keeping a "watching brief" on the Laser.

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# RECOMMENDED READING

ONE of the difficulties facing the officer seeking to improve his professional knowledge through the study of past events and current trends and developments, is to select from the material available, the books best suited to his purpose. To assist officers in making this selection the Staff College will compile lists of suitable books and publish them in the Australian Army Journal from time to time.

These lists are by no means exclusive; they do not aim to list every book that every officer may wish to read. They are intended to be a guide to planned reading which aims at the acquisition of knowledge of:

- (a) Contemporary military thinking.
- (b) Political, economic, and scientific developments which have a bearing on Australian defence.
- (c) Military History.

It is to be clearly understood that the fact that a book is recommended does not imply official approval of the author's views and interpretations. It signifies simply that the recommended book contains a thoughtful presentation of facts and analyses viewpoints which merit the attention of military officers.

It may well be that some readers are aware of books which in their opinion should have been included in the lists. Readers holding this opinion are invited to communicate their

ideas to the Australian Staff College, Fort Queenscliff, Queenscliff, Victoria, giving the title of the book, the author, the publisher and a brief synopsis or review of its contents. The Staff College will be grateful for assistance of this kind.

Three lists have been published. List 4 follows:

## Recommended Reading List No. 4, November 1964

**STRATEGIC MOBILITY**, by Neville Brown. (Chatto and Windus).

Neville Brown makes a study of limited war in the nuclear and post colonial age. The book examines the resources that the major powers can deploy in support of allies or the United Nations or in defence of their own interests in the areas of conflict. The means of deployment by air and sea and the question of bases are also examined. The author, a graduate of London and Oxford Universities, is a Research Staff member of Institute of Strategic Studies.

**AUSTRALIA'S DEFENCE AND FOREIGN POLICY**, edited by John Wilkes. (Angus and Robertson).

For two days in January 1964 a summer school on "Australia's Defence and Foreign Policy" was conducted by the Australian Institute of Political Science. Some 700 leading Australians gathered to hear and discuss papers on Australian defence capability, and Australia's ability

to back its foreign policy. The book contains the papers — "Australia's Foreign Relations" by Sir Garfield Barwick, "Australia's Strategic Position" by Roger Hilsman, "Defence Needs" by T. B. Miller, "The Cost of Defences" by R. L. Downing and "Some Internal Political Problems" by B. D. Beddie. Discussions which followed each address are included. The book is a valuable analysis of Australia's Defence and Foreign Policy problems and shows the need for larger defence forces.

**THE UNITED NATIONS, A SHORT POLITICAL GUIDE,**  
by S. D. Bailey. (Pall Mall).

Since foundation eighteen years ago, the United Nations now embraces over 100 independent states and maintains its agencies on every continent. The Organisation has dealt with many complex problems including Palestine, Kashmir, Korea, South East Asia and the Congo. It has helped refugees, facilitated the spread of cultural, technical and scientific knowledge in the fields of economics, health and food production, and has provided an international forum for the exchange of views. The book is an easy to read account of its working and problems.

**PEACE KEEPING BY UN FORCES FROM SUEZ TO THE CONGO,** by A. L. Burns and N. Heathcote. (Pall Mall).

An examination of the United Nations experiences with military groups recruited on an international basis and deployed, on behalf of the organisation

itself, by its executive officers. Attention is devoted to the machinery of military command, political control and authority, and to the roles played by the Security Council, the General Assembly and the Secretariat. Both authors are associated with the Australian National University.

**SOUTH EAST ASIA,** by C. A. Fisher. (Methuen).

This book is a study of the social, economic and political geography of South East Asia. Twenty one chapters are devoted to the contemporary problems of the area, each in their own appropriate geographical setting. The final chapter considers the changing relationship of the countries with the outside world. The book contains 108 tables and 110 maps and includes an excellent bibliography of authors from which material has been drawn. The author is Professor of Geography at Sheffield University.

**INDONESIA,** by Bruce Grant. (Melbourne University Press).

The author presents a general survey of the history, present situation and future outlook of Indonesia. A good coverage is given to the personalities and views of Soekarno, Nasution, Subandrio and other influential leaders in Indonesia. Bruce Grant is the South East Asian correspondent to *The Age*.

**THE FOUNDATIONS OF NEW INDIA,** by K. M. Panikkar. (George Allan and Unwin).

K. M. Panikkar examines the influence of centuries of Moslem

and British rule on India, and shows the extent to which their ideas and methods have been assimilated into the mainstream of India's own historical traditions. The parallel Hindu socio-religious movements which revolutionised the traditional caste structure and outlook toward life are also examined. K. M. Panikkar is a leading Indian writer who has written several books on the history and problems of India.

**WARFARE IN THE ENEMY'S REAR**, by Otto Heilbrunn. (Allen and Unwin).

Many Allied and Axis forces in World War II fought in the enemy's rear — the Commandos, the Special Air Service, the Long Range Desert Group, the Chindits, the American Rangers and Marauders, partisans in France, Russia, Yugoslavia, the German Brandenburg Division, Skorzeny's Special Formation and others. The author, an authority on irregular warfare, makes a study of these operations on modern warfare.

**THE TWO VIETNAMS**, by Bernard Fall. (Pall Mall Press).

A political and military analysis of the wars in Indo-China. Bernard Fall explores Vietnamese history and politics from early history to the present situations. The analysis is detailed and pointed, some conclusions however are controversial. The chapter on revolutionary warfare is worthwhile. Bernard Fall is well known for his previous book "Street With-

out Joy" — Insurgency in Indo-China 1946-63, and for several other books and papers on the Indo-China area.

**NEITHER FEAR NOR HOPE**, by Gen. F. Von Senger Und Etterlin, translated by George Malcolm. (MacDonald and Co. London).

This is the story of the World War II career of General F. Von Senger Und Etterlin, a German officer who attended Oxford University as a Rhodes Scholar prior to World War I. As commander of XIV Panzer Corps, General Von Senger was responsible for the highly successful German defensive operations in the Monte Cassino battles. The foreword is written by Captain Liddell Hart.

**THE JUNGLE IN ARMS**, by Lieutenant Colonel Balfour-Oats. (William Kimber).

This is an easy to read account of the Chin Levies raised and commanded by the author during World War II. The Levies, portrayed as noble and intelligent but semi-primitive tribesmen, operated ahead of the XIV Army in Burma. An interesting story on irregular warfare.

**THE FINAL CAMPAIGNS**, by Gavin Long. (Australian War Memorial).

This, the concluding volume of the official history of the Australian Army in World War II, covers in detail the campaigns in the Finisterres, Aitape-Wewak, New Britain, Bougainville and Borneo.



# CAMP TRAINING 1886

Major A. W. Reynolds,  
Royal Australian Artillery

**F**OLLOWING a disagreement between the Imperial and Colonial Governments over the conditions under which Imperial Troops should be stationed in the Colonies, the Imperial Troops were withdrawn from Victoria in 1870, and the Colony found itself with the whole responsibility for its defence.

The Victorians augmented their existing Volunteers, who had been raised in 1854 on news of the outbreak of the Crimean War, and raised a small detachment of permanent troops to act as a nucleus on which the citizen forces could be built. However, as a result of elections in 1881 a reorganisation of the defence forces took place, and it was finally decided in 1883 that the Volunteers were ineffective and should be disbanded. In the same year a militia was raised to replace the Volunteers which were disbanded in 1884.

By 1886 the Victorian Military Forces consisted of the Head-

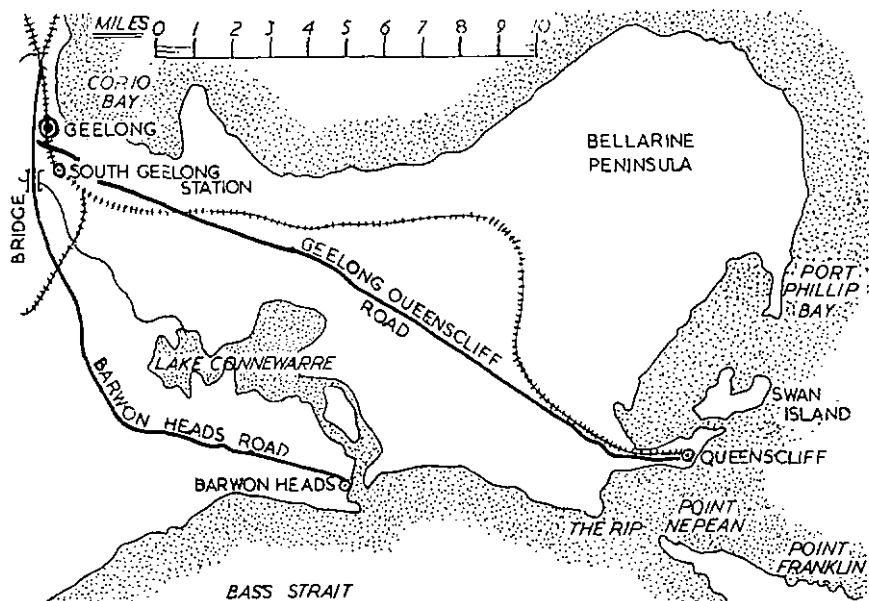
quarters Staff — mainly English officers — the School of Military Instruction, the Victorian Artillery (permanent force) and a militia of cavalry, field artillery, garrison artillery, engineer, infantry and mounted rifle units. The units were broadly classified as Garrison or Field Force units.

Each year the Militia held an Easter encampment, and in 1886 it was announced that the encampment for that year would be held near Queenscliff from 22nd to 26th April.

## The Garrison Units

The forts manned for the Easter Camp were Queenscliff, Swan Island, Point Nepean and Point Franklin. With the exception of Geelong and Warrnambool Batteries and the Torpedo Corps (Engineers) which travelled to Queenscliff by train, the other units moved to the forts by sea in the "Despatch".

The Staff Officer at Swan Island was a Lieutenant Charles Edward Ernest Umphelby, Victorian Artillery, who was com-



missioned on 20th June, 1884. In 1891, as a major he assumed command of his Corps, by this time known as the Victorian Permanent Artillery. In 1899, as a lieutenant-colonel, he was sent to the South African War on Special Service. He died of wounds at Driefontein in 1900, and his death is recorded on plaques at the Staff College and the Queenscliff Church of England.

In the forts the troops serviced and guarded the guns. On Friday morning, 23rd April, the Geelong Battery practised with 40 pounder RBL guns on the land range at Swan Bay. The guns mounted at Point Nepean and Point Franklin were fired on Saturday morning, 24th April, and those at Queenscliff and Swan Island on Saturday afternoon.

Apparently, Sunday was spent rather quietly as no specific orders were given for that day.

Monday morning saw the units packing up and the "Despatch" started embarking troops at 2.30 p.m. that afternoon for the return trip. For some reason the Warrnambool Battery, instead of returning to Warrnambool directly by rail, first went to Williamstown by sea, and then went home by train. This may have been done to avoid the Field Force which was concentrating on Geelong.

A Lieutenant Colonel Arthur Greenwood Walker, Deputy Assistant Adjutant General for Artillery, was asked to comment on the conduct of the Garrison Artillery during the encampment. The substance of his report was contained in a General Order issued on 3rd

May, 1886. This General Order is reproduced in full:—

"The Commandant has had much pleasure in receiving from Lieut. Col. Walker a favourable report on the conduct and efficiency of the Garrison Artillery, stationed at the Forts at the Heads during the Easter Manoeuvres.

"There are, however, several points in Lieut. Colonel Walker's report calling for notice, and, in mentioning them, the Commandant is certain that, owing to the evident desire of all ranks to do their best, attention will be paid to these points for the future.

- (a) Want of punctuality on parades and all duties was very apparent and this was particularly noticeable in the case of officers. Troops should always be ready to move off at the times mentioned in the orders. Private parades to inspection, etc., should always be ordered at least ten minutes earlier.
- (b) There was a great want of smartness in the performance of Garrison duties. The Commandant himself noticed, on Saturday morning, several non-commissioned officers and men of the Garrison Artillery Militia standing on the parapet at Queenscliff Fort, some in short-sleeves or unarmed (the Fort being in 'action' at the time); when they should have been at their posts. Such an occurrence could scarcely take place if officers exercise a

careful supervision over their men.

- (c) Two batteries marched into quarters without their commanding officers: one was in charge of a non-commissioned officer.
- (d) Marching-in states were, in several cases, not ready to be handed in on arrival, nor were men told off in gun detachments according to orders.
- (e) Orders as to the amount of baggage were not strictly carried out, notably in the case of the Williamstown Garrison Battery.
- (f) Much greater attention is required to be paid to the 'Standing Orders' for camps etc., particularly as regards reports of officers, duties of non-commissioned officers, and duties of guards. All officers and non-commissioned officers should make themselves thoroughly acquainted with these orders, and whether on or off duty, notice any infringement of them."

#### The Field Force Units

Acknowledging the need for well-cooked food, the Assistant Adjutant General made early arrangements for cooking training. On 12th March, 1886, he authorised an issue of one set of cooking utensils to officers commanding battalions, corps, field batteries and detachments "so that men may be instructed in their use before Easter". In addition, the Assistant Commissary General held a cooking course on the afternoons of 3rd and 10th April for all quarter-

master-sergeants and cooks. This course was held at Victoria Barracks.

Early medical arrangements were also made. Ten medical officers were allotted to Field Force units, the only unit to suffer any disadvantage being the Victorian Mounted Rifles — a unit of nine companies — which appears to have been overlooked. One of the medical officers, a Surgeon George LeFevre, allotted to A Field Battery, had the distinction of being "mounted". Each of the Medical Officers was allowed an orderly to carry the Field Companion, the surgical haversack and water bottles.

On 7th April General Order 267/86 was issued, giving orders for Field Camp. This order is reproduced in full below:—

"Orders for Field Camp (near Queenscliff) at Easter 1886.

1. The Regulations as laid down in Sec. III para 2 of Standing Orders to be strictly adhered to, unless orders to the contrary are given.

#### Rations

2. Commanding Officers will daily indent for rations for officers, non-commissioned officers, men, and horses, on the following scale.

1½ lbs bread	per man.
1½ lbs. fresh meat	„ „
⅓ oz. tea	„ „
⅓ oz. coffee	„ „
2 oz. sugar	„ „
⅓ oz. pepper	„ „
½ oz. salt	„ „
1 lb. potatoes or other vegetables.	

On Good Friday, Commanding Officers can indent for fish, instead of meat, for men who require it.

1 candle per tent per day.

72 lbs. of straw per tent will be issued for whole encampment.

12 lbs. hay per horse.

9lbs. oats.

3 lbs. bran.

9 lbs. chaff.

Rations will be issued from the Commissariat at 7 a.m. daily.

Forms of indent for rations will be supplied. These must be filled up by troops, batteries, and companies, and taken by the Quartermaster-Sergeant to the Assistant Commissary-General before 12 noon on the day previous to which the rations are required.

Rations for officers' mess to be shown separately.

On Thursday night, the indents must be forwarded as soon as possible after arrival of troops in camp.

A party of one non-commissioned officer and two men per troop battery of company, each with tin dish, will proceed at the hour named, in charge of the Quartermaster-Sergeant of the corps, to the Commissary, and draw the rations.

The Assistant Commissary General will provide light carts to take the rations to the corps. These carts at once to return to the Commissariat when rations have been delivered. The rations will then be issued to the various companies etc., by the

Quartermaster-Sergeant, under the direction of the Orderly Officer of corps.

The following regulations for issue of rations and cooking will serve as a guide, but Commanding Officers will make such arrangements as they think best.

Two men per troop, battery or company may be excused from parade as cooks.

#### Issue of Rations and Cooking

On receiving the rations from the Quartermaster-Sergeant, the Orderly Corporals of companies will at once deliver the meat and vegetables etc., to the cooks of their respective companies, and distribute the bread, salt, pepper, etc., to the tents of the companies.

A quarter of an hour before each meal, the Orderly Corporals of companies will receive from the cooks the rations for their men on guard, and will parade under the Orderly Sergeant as detailed in orders. A quarter of an hour before each meal, a non-commissioned officer and two men per tent will march to the cooking place to receive the meals. (At the evening meal, one man per tent only will be necessary.)

Immediately after each meal, the Orderly Corporals of companies will march one man from each tent to the cooking place with a bucket for hot water for washing up plates, dishes, etc., the men taking with them all refuse, such as bones, broken bread, etc., and will throw the scraps in such a place that will be pointed out to them.

The Orderly men must on no account permit any scraps to remain about their tents.

All plates, dishes, knives and forks, etc., to be thoroughly washed after each meal.

#### Cooks

On receiving the rations, the cooks of each company will at once proceed with the preparation of the meals.

About five minutes before each meal, the cooks will divide each company's rations into messes (each tent being considered a mess) setting aside the necessary number of rations for the men on guard for the Orderly Corporals, who will inform them of the number of rations required.

As soon as the rations are issued, the cooks will at once fill their boilers, so as to have hot water ready for their companies, for the purpose of washing plates, dishes, etc., after each meal.

No man is, on any pretence whatever, allowed hot water other than at the time stated, and then only when accompanied by the Orderly Corporal of his company.

In cooking the meat for breakfast the cooks will endeavour to give equal quantities of beef and mutton to each mess, when both are drawn from the Commissariat.

The cooks are not to allow any dirty plates, dishes, etc., to be deposited about the cooking places; should anyone persist in doing so the cooks should at once report the matter.

All refuse to be placed in the pit constructed for the purpose.

The cooks to be under the orders of the Quartermaster-Sergeant.

After the evening meal, the Quartermaster - Sergeant will issue candles, etc., etc., to the Orderly Corporals of companies.

### Camp Duties

3. Camps will be pitched, as laid down for various branches of the service in the Encampment Regulations.

Cavalry and Nordenfelt battery will encamp together as a Field Battery, at full intervals.

Field Batteries at half-intervals.

Battalions at half-company distance.

Mounted Rifles at half-company distance.

Cooking places at rear of men's tents.

Officers in rear of cooking places.

Horses (in Infantry Battalions) in rear of officers' tents.

The line of front occupied by a corps, the line of cooking places, and the line of officers' tents, will be fixed by pegs by a Staff Officer (line of cooking places distinguished by pegs painted red) as much intervals as possible to be left between the lines.

### Latrines and Refuse Bins

The position of the latrines of each corps and refuse pits will be posted out to corps on their arrival on the ground. Officers

Commanding should issue stringent orders that latrines are properly used by night or day and no nuisance committed on the ground.

Quartermaster - Sergeants should visit latrines and refuse pits before breakfast and ascertain that they are kept in a sanitary condition. The former should have a layer of earth thrown in every morning.

After each meal, all refuse must be collected and taken to the pits appointed.

Quartermaster-Sergeants will report having performed those duties to the Orderly Officer of the corps, who is responsible for the general cleanliness and sanitary condition of the lines, the Field Officer of the Day exercising a general supervision.

### Guards

4. Guards will be furnished as follows and will be posted immediately on the arrival of corps in camp on Thursday evening, 22nd March:—

A main guard consisting of

1 Lieutenant

1 Sergeant

2 Corporals

1 Bugler

15 Privates

to be furnished by Infantry Corps in succession. This guard will furnish sentries as follows:

1 over guard tent and main entrance to camp

1 over Commandant's tent

1 over Commissariat

1 over water supply

1 over level crossing

The officer and advanced party of 1st Battalion V Rifles (as detailed below) will furnish this guard on Thursday afternoon as soon as camp has been pitched.

The Commanding Officer 1st Battalion V Rifles may relieve them by fresh men on the arrival of the Battalion in camp.

The 2nd Battalion will furnish the guard on Friday 23rd.

The 3rd Battalion will furnish the guard on Saturday 24th.

The 4th Battalion will furnish the guard on Sunday 25th.

Regimental Guards will be furnished as follows, to be mounted by corps immediately on arrival in camp on Thursday evening.

Cavalry and Nordenfelt Battery — 1 non-commissioned officer and 3 men. Nordenfelt Battery will furnish guard on Thursday evening. Cavalry on Friday, Saturday and Sunday morning. In addition to this, a Stable Guard of 1 non-commissioned officer and 3 men will be furnished from Retreat to Reveille every day. The Nordenfelt Battery will furnish it on Sunday night, the Cavalry on other nights.

Field Artillery —

1 non-commissioned officer and 3 men per battery from Retreat to Reveille every night.

1st Battalion —

1 Sergeant, 1 Corporal and 9 men

1 sentry on guard tent

1 sentry in rear of camp

1 sentry on left flank of camp  
2nd Battalion —

1 Sergeant, 1 Corporal and 6 men

1 sentry on guard tent

1 sentry in rear of camp

3rd Battalion —

1 Sergeant, 1 Corporal and 9 men

1 sentry on guard tent

1 sentry in rear of lines

4th Battalion —

1 Sergeant, 1 Corporal and 9 men

1 sentry on guard tent

1 sentry in rear of camp

1 sentry on right flank of camp

Engineer Corps —

1 non-commissioned officer and 6 men

1 sentry on guard tent

1 sentry in rear of camp

Mounted Rifles —

1 Sergeant, 1 Corporal and 6 men

1 sentry on guard tent

1 sentry in rear of lines

In addition to this, a Stable Guard of 1 non-commissioned officer and 3 men will be furnished from Retreat to Reveille every night.

### Canteens

5. Canteens will be open for supply of liquors daily from 11 a.m. till 1 p.m. and from 5 p.m. till 8.30 p.m. No one will be allowed to obtain liquor except between these hours. The

canteen will be open for sale of groceries, etc., from 8 a.m. to 12.30 p.m. and from 3 p.m. to 8 p.m.

Sergeants on Canteen duty will be furnished as follows:—

Friday —

Right canteen 11 a.m. to 1 p.m.  
Cavalry

Right canteen 5 p.m. to 8.30 p.m. 3rd Battalion V Rifles.

Left canteen 11 a.m. to 1 p.m.  
1st Battalion V Rifles

Left canteen 5 p.m. to 8.30 p.m.  
2nd Battalion V Rifles

Saturday —

Right canteen 11 a.m. to 1 p.m.  
Field Artillery Brigade

Right canteen 5 p.m. to 8.30 p.m. Mounted Rifles

Left canteen 11 a.m. to 1 p.m.  
4th Battalion V Rifles

Left canteen 5 p.m. to 8.30 p.m. 1st Battalion V Rifles

Sunday —

Right canteen 11 a.m. to 1 p.m.  
3rd Battalion V Rifles

Right canteen 5 p.m. to 8.30 p.m. Field Artillery Brigade.

Left canteen 11 a.m. to 1 p.m.  
2nd Battalion V Rifles

Left Canteen 5 p.m. to 8.30 p.m.  
Engineers

A Sergeant on Canteen duty may be relieved by another Sergeant of his corps every hour, but on no account is he to leave till he has been properly relieved.

The duties of Sergeants on Canteen Duty will be posted on

a board in the Canteen. All ranks must at once obey the orders given by this Sergeant in the execution of his office.

### Bugle Calls, Etc.

6. Reveille, Retreat, First Post, Tattoo and Lights Out, also general alarms, will be sounded from Headquarters, and taken up by the different corps. On no account are there calls to be sounded independently by corps. Bugle calls from Headquarters will be preceded by three 'G's.

On the sound 'Orders' from Headquarters, the Regimental Orderly Sergeant of each corps will at once proceed to Headquarters with order book.

When three 'G's are sounded after 'Orders', the Adjutant or an Officer from each corps will at once proceed to Headquarters for orders.

### Feeding and Watering

7. The following arrangements for feeding and watering are to be observed by mounted corps.

Fifteen minutes after Reveille, mounted corps will turn out for stable duty under Orderly Officer.

Manure will be removed from lines, placed in a cart for the purpose and taken to the appointed place. The horses will then be taken to water by the Orderly Officer. Corps will form up at the watering troughs in the order of their arrival — first arrival on the right — and proceed to water by troops, batteries and companies.

Horses must only enter and leave by the proper entrances.



On return from watering, horses will be groomed and fed. Immediately after return of corps from parade, horses will be taken to water, and 'Stables' will be sounded as soon as convenient afterwards, when all officers, non-commissioned officers and men must attend. Horses will be groomed, and fed, and saddles, bridles, etc., will be thoroughly cleaned.

When troops do not leave camp, mid-day stables will take place at 12 noon, when all officers will attend. Evening stables at 5 p.m. under Orderly Officer. Horses will invariably be watered before being fed.

8. No civilians will be allowed to live in camp as cooks, caterers, etc., on any pretence whatever, unless specially authorised, with the following exceptions.

One head cook per corps.

Grooms of mounted officers.

Drivers of hired carriage,

and persons in the employment of the Commissariat and Telegraph Departments.

#### Ammunition

9. Ammunition carts will be detailed as follows:—

1 Reserve Artillery Ammunition cart, 1 Reserve Small-arm Ammunition cart, with Assistant Commissary General.

1 Small-arm ammunition cart, 1st Battalion V Rifles

1 Small-arm ammunition cart, 2nd Battalion V Rifles

1 Small-arm ammunition cart, 3rd Battalion V Rifles

1 Small-arm ammunition cart, 4th Battalion V Rifles

1 Small-arm ammunition cart, Mounted Rifles

These five latter will be placed in camp in rear of the officers' tents and will be in charge of the sentries in rear of the lines and camp. They will invariably accompany a corps when it moves out of camp (unless otherwise ordered) and a guard of one non-commissioned officer and three men will be told off to guard it per corps. Before leaving camp, each man of Infantry Battalions and Mounted Rifles will be supplied with five rounds of ammunition. Ammunition required during day to be issued by non-commissioned officer in charge of ammunition cart, on receipt of requisition from officer (a pencil note will suffice). Not more than twenty rounds per man to be issued on any one day.

#### Water Carts

10. Water carts will be told off to supply drinking water to corps during the Encampment and will be attached to corps when they march out of camp.

One non-commissioned officer and three men will be detailed as a guard to each cart on the latter occasions. The non-commissioned officer will see that the water cart is replenished whenever practicable and will superintend the filling of buckets and issue of water to corps when required, and be held responsible for those buckets and all articles belonging to the carts.

### Advanced Parties

11. Officers Commanding will arrange to send an advance party, consisting of one Officer and the Quartermaster-Sergeant of the corps, and at least one non-commissioned officer and six men per troop, battery, corps or company. These should start as follows on Thursday morning, 22nd April:—

Metropolitan Corps, by 6.30 a.m. train from Spencer Street.

3rd Battalion, by 6.30 a.m. from Ballarat.

Headquarters 4th Battalion 7.38 a.m. from Castlemaine.

Sandhurst detachment, 4th Battalion, 6.45 a.m. from Sandhurst.

Cavalry, 6.45 a.m. from Sandhurst.

Nordenfelt Battery, one non-commissioned officer and three men only 8.10 a.m. from Sunbury.

Lieut. Colonel Price will arrange for a similar party to be at camp as early as possible on Thursday.

These parties will disembark at the siding at the camp and the Officer Commanding will report himself to the Assistant Adjutant-General or Staff Officer on the ground. They will then proceed to draw camp equipage, pitch tents, dig latrines, cooking places, etc., as may be ordered.

### Personal Baggage

12. All personal baggage of Metropolitan Corps should be at

the respective orderly-rooms on Wednesday morning. The Assistant Commissary-General will send carts around to collect it and it will be taken to camp, as may be directed, in charge of a non-commissioned officer and one man per battery or company, who must be told off to accompany it. These men must be provided with a day's rations in their haversacks.

On no account are carts to be detained at the orderly-rooms.

Baggage of country corps to accompany the corps.

13. Officers Commanding are requested to impress on officers who proceed with advanced parties to be careful to receive the correct amount of stores and camp equipage.

14. Non-commissioned officers and men are strictly forbidden to cross the railway in rear of the camp, except by the level crossing, and then only when marched over in bodies or when on special duty. Sentries in rear of the camp to make prisoners of anyone disobeying this order.

No officer, warrant officer, non-commissioned officer or man will be allowed to leave the camp during the manoeuvres, except on duty, without special leave from Headquarters.

All punishments awarded by Commanding Officers during the camp will be reported to Assistant Adjutant General as soon as possible."

The Victorian Mounted Rifles' lack of fortune in the allotment of medical officers has already

been mentioned, but worse was to befall this fine unit. On 9th April, two officers were attached to the unit, one to be adjutant, the other to be quartermaster. This unit consisted of nine companies which were split into a total of fifty-one detachments, each one in a separate village or town and spread throughout Victoria. One can't help admiring the effort that must have been made to gain cohesion in this unit during the camp.

The movement of units to camp must have been a sight to behold. Generally the Field Force travelled by rail. As well as the men, their horses, guns and limbers were moved by train and most of them had to pass through Spencer Street Station. As the horses and equipment had to be at the station an hour before train time and the men were required thirty minutes later, the noise and movement on 22nd April 1836 must have been indescribable. On that day five trains left Spencer Street with nine units including four batteries of artillery.

Advanced parties arrived early on the morning of 22nd and the main bodies marched in that night. Once units moved into their areas no one was allowed to leave his camp unless he was on duty or in possession of an appropriate medical certificate.

The scale of accommodation stores allowed the Field Force was laid down in General Orders. It is interesting to note that such items as knives, spoons and forks for carving, meat dishes, pepper casters and

tea cans were issued on the basis of one per tent. Screens latrine, hooks bill and knives butchers were in the catalogue of stores 80 years ago but nose bags (one per horse plus 5 per cent. spare) and ropes picketing, have now gone forever.

Personal baggage was limited according to rank. Field officers were allowed 80 lbs., other officers 50 lbs. and other ranks 20 lbs. The soldier's 20 lbs. was made up of 1 blanket, 1 shirt, 1 pair of socks, 1 towel, 1 knife, fork and spoon, 1 pair of boots, 1 forage cap, 1 polishing brush, 1 hard brush, 1 tin of grease and 1 palliasse.

Unit lines were distinguished by camp colours. Each unit was allowed to display six of these, and the colours allotted were:

#### Cavalry

White

#### Field Artillery Brigade

A Battery — Blue

B Battery — Blue with white diagonal cross

C Battery — Blue with red diagonal cross

#### Engineers

White with blue diagonal cross

#### Infantry

1st Battalion Victorian Rifles — Red

2nd Battalion Victorian Rifles — Red with blue diagonal cross

3rd Battalion Victorian Rifles — Greens with red diagonal cross

4th Battalion Victorian Rifles  
— Red with white diagonal cross

Mounted Rifles — Green

The general idea for manoeuvres during the camp was as follows:—

“An enemy’s fleet has been observed off the Barwon Heads, and it is believed that they propose effecting a landing there. A field force, composed of —

Victorian Cavalry

Field Art. Brigade (three Batteries)

Engineer Corps

1st Battalion V. Rifles

2nd Battalion V. Rifles

3rd Battalion V. Rifles

4th Battalion V. Rifles

Mounted Rifles

takes up a position on the Queenscliff and Geelong road, about four miles from Queenscliff, with the object of covering Queenscliff, the Queenscliff-Geelong railway, and the approaches from the Barwon Heads to Geelong on the left bank of the Barwon. Should the enemy land on the right bank of the Barwon, the field force will fall back on Geelong, and take up a position selected for the defence of the latter place.”

Friday morning was devoted to drill and inspections, and in the afternoon, most units carried out outpost and reconnaissance duties.

On Saturday, the Field Force was split into two opposing groups and the whole day was spent in manoeuvres. At the close of the day the troops

returned to camp, marching past the Governor, Sir Henry Brougham Loch.

On Sunday morning a church parade was held and on Sunday afternoon units conducted their own training.

On Monday morning the units broke camp and moved to Geelong. There they proceeded with the day’s manoeuvres in accordance with the following detail.

“Intelligence having been received that an enemy has landed on the right bank of the Barwon, and is advancing on Geelong, the troops in camp retire to defend the latter place. Infantry and Engineers proceed by rail, mounted troops by road. The enemy will be represented by the Mounted Rifles, one battery Field Artillery Brigade and the 3rd Battalion V. Rifles. The remainder of the force will defend Geelong. The general arrangements for the defending force will be made under the orders of the Commandant, and will be carried out by Lieut. Colonel Templeton, who will command.

Lieut. Colonel Sleep will command the attacking force.

Lieut. Colonel Price will proceed with the Mounted Rifles in advance by the breakwater over the Barwon, and take up a position on the Barwon Heads road, which will be pointed out.

Detailed instructions will be sent to officers and umpires.

The Field Artillery Brigade will march together towards Geelong, the battery told off for the attacking force marching at the head of the column. On

approaching the breakwater, the leading battery will cross the breakwater over the Barwon, and then proceed to join the Mounted Rifles. The second will remain at the breakwater on the left bank of the Barwon, and will occupy such positions as may be assigned to it. The third battery will proceed toward the iron bridge at Geelong, and be placed in position by a staff officer.

The Infantry and Engineers and dismounted men (Field Artillery) will disembark at South Geelong Railway Station. The Engineer Corps will, under the direction of the Commanding Engineer, proceed to construct such entrenchments as may be ordered. The dismounted men (Field Artillery) will proceed to breakwater or iron bridge to join the batteries on arrival.

The 1st, 2nd and 4th Battalions will be placed in position. The 3rd Battalion will march over the iron bridge to join the Mounted Rifles; and Lieut.-Colonel Sleep will, on the assembly of the troops for the attack, assume command.

The day's operations will commence about 2 p.m. A staff officer will inform Lieut.-Colonel Sleep at what time he may commence operations.

Officers commanding corps must make arrangements that men have had their dinners, and horses are watered and fed, before 1.30 p.m.

On the 'Cease Fire' sounding, all troops will immediately halt and collect scattered detach-

ments. On the 'Assembly' sounding, all troops will immediately march towards the iron bridge, and orders as to their disposal will be given.

Horses of mounted officers of 3rd and 4th Battalions should be despatched to the Station at Geelong as soon as field manoeuvres are over, to be entrained.

Troops will be at the Geelong Railway Station for embarkation as follows:—

Cavalry	7.25 p.m.
Field Artillery	8.25 p.m.
1st Battalion V. Rifles	9 p.m.
2nd Battalion and University Company	9.15 p.m.
3rd Battalion V. Rifles	7.15 p.m.
4th Battalion V. Rifles	7.45 p.m.
Nordenfelt Battery	8.25 p.m.
Engineers	9 p.m.
Mounted Rifles — Orders will be issued by Commanding Officer.	

In all manoeuvres, the Commandant will be the Umpire-in-Chief, and Lieut.-Colonel Brownrigg and Major Fellowes umpires. Lieut.-Colonel Couran will join the umpire staff on Monday.

Attention is called to Umpire Rules.

The Field Officer on outpost duty will be in charge of both Cavalry and Infantry outposts and will visit them during the night after 11 p.m.

The Field Officer of the following day to attend when out-

posts are posted, so that he may know the disposition.

Field Officer for Camp duties on Friday 23rd, Major Irving, 2nd Battalion V. Rifles."

Two reports were published on the camp: one on 30th April covered the camp in general; the other on 11th May dealt with the manoeuvres. Both these reports are shown below:

"At the conclusion of the Easter Encampment at Queens-cliff, the Commandant desires to place on record his satisfaction at the manner in which the troops entered the camp, and conducted themselves therein, at the good spirit shown throughout, and the cheerfulness with which inconveniences incidental to camp life were borne, and at the evident progress made as to acquaintance of all ranks with drill and duties.

There are, however, some points to which the Commandant desires to draw attention.

1. The necessity for greater punctuality. The troops were rarely ready to move out at the appointed times, nor were meals ready to be served at the hours named in orders. This is a very serious matter, and might lead to disaster on service. This can only be obviated by the minutest attention to details on the part of regimental officers.

2. Much greater attention is required to the Standing Orders for camps, as to parading picquets, reports of officers, duties of guards, watering of horses, and conservancy arrangements, and non-commissioned officers

on duty. It is the duty of all officers and non-commissioned officers to make themselves thoroughly acquainted with all these Orders, and whether on or off duty to notice any infringement of them.

3. At the conclusion of the manoeuvres on Monday, the embarkation of the troops was not conducted with as much regularity as could be desired. If the reputation of the Militia for soldier-like conduct is to be maintained, it will be necessary that all should proceed to the places where their corps are to be dismissed with the same order and regularity with which they left them. The Commandant is aware that, owing to the length of time which most corps had to wait at the Geelong station before embarkation on Monday night, officers commanding had great difficulty in keeping their men together; but it is on such occasions that the discipline of corps is called into play, and that the services of all officers are required, and no officer is in future to be given leave until his men are dismissed.

4. During the manoeuvres sufficient advantage was not taken of cover by troops in attacking and in defence; troops sometimes left cover for no advantage. Too much attention was paid to parade movements and dressing in action. Troops did not, as a rule, move with sufficient alacrity, commanding officers frequently taking too long to make up their minds what to do. Movements across open ground under fire were frequently made in quick time.

In retirements, supporting bodies were not properly brought into play. Umpire rules and the instructions issued regarding the use of artillery in combination with other arms, require to be more strictly adhered to. All officers should be made acquainted with the general scope of manoeuvres. The evident desire of all ranks to acquire a knowledge of their duties renders the Commandant certain that attention will be paid to these points in future, and, while noticing them, he is glad to observe that a great improvement has been made as regards most of them during the past year.

The Commandant desires to place on record his satisfaction at the manner in which the Headquarters Staff carried out their duties; also at the general efficiency and zeal evinced by the Medical Department, and the excellent arrangements made by Brigade-Surgeon Fulton, P.M.O.

In conclusion, the Commandant has much pleasure in bringing to notice the manner in which the Commissariat arrangements were carried out by Major Cairncross, Assistant Commissary-General. This Department, being quite new to its work, had many difficulties to contend with, but all details as to supply of food and forage, and transport arrangements were carried out most satisfactorily, and reflect great credit on Major Cairncross. That officer was most ably assisted by Captain McCallum, Deputy Assistant Commissary-General."

## "Remarks on Manoeuvres:—

Saturday, 24th April

### *Attack*

On whole, well carried out.

The Infantry much too slow in commencing the advance and carried it out too slowly. Cover hardly ever taken advantage of. Skirmishing carried out in a clovenly manner. No connexion maintained between corps.

System of serving out ammunition not carried out. The Infantry on the right being at a critical time without ammunition.

When Cavalry scouts had found the enemy, and the Infantry had obtained touch, the scouts should have been withdrawn at once to the flanks.

### *Defence*

Disposition not properly made to carry out special idea.

Infantry and guns should in the first instance have been posted to support Mounted Rifles whilst scouting.

When the latter had obtained the necessary information, they should have fallen back on the position, which should then have been abandoned by alternate bodies of both Infantry and Artillery, the Mounted Rifles covering the general retirement, and holding the edge of the scrub and Queens-cliff road until the Artillery and Infantry had gained their position at neck, when they should have made a rapid retirement on the left flank of the position at neck, so as not to mask its fire.

Mounted Infantry often exposed themselves in large masses. Infantry did not avail themselves sufficiently of cover nor did Artillery take advantage of cover to protect limbers.

In retirement, ammunition and water-carts should always precede a corps, not follow it.

### Monday, 26th May

#### Attack

The advance to the iron bridge was made much too slowly.

Mounted Infantry, as a rule, took no advantage of cover and horses were often exposed. Had a portion of them been free to work on the flank of the attack, and to communicate with the attack on Breakwater, they might easily have forced the river at the latter place when it was left almost undefended.

The Artillery on the right attack were left unprotected and were easily surprised by Mounted Rifles. In fact, after the feint on the Breakwater had been carried out, no look-out whatever appeared to have been kept on the right, and a large body of the defending force was allowed to get in the rear of the attackers quite unperceived.

Infantry on the left, after attempting to cross the iron bridge, and being ordered back by umpires, marched up the face of a hill in column of route, exposed to the fire of 1½ batteries of Artillery, and a battalion of Infantry.

They also sounded bugle calls, contrary to orders.

#### Defence

The Artillery on the left opened fire too soon, disclosing the position. Attention should be paid to printed instructions on use of Artillery.

Troops were advanced from cover across the river on the left for no sufficient reason, and contrary to special idea.

When counter-attack was made, the left of the position was left almost undefended; the guns, without sufficient reason, being taken from the position. The guns, and at least half a battalion of rifles, should have been left at the Breakwater.

On the right, the company, which was moved across the iron bridge, was handled badly, and kept exposed, instead of at once extending. Moving this company across the bridge at all was contrary to the special idea, which only admitted of a counter attack from the flank opposite to that attacked in force.

The company thus advanced was liable to mask the fire from the entrenchments on the left bank, being itself unnecessarily exposed to fire and would certainly, if driven back, have masked a fire of the Nordenfelt guns, placed to sweep the bridge."

#### Conclusion

The Victorian Military Forces were amalgamated with those of the other States in March 1901, and the last review of Victorian



troops took place at Flemington Racecourse in May of that year.

Units did, however, retain their titles until 1903 when the Commonwealth Defence Forces were reorganised by Major General Sir Edward Hutton, KCMG, CB.

At no time did the strength of the Victorian Military Forces exceed 8,000 and the average strength was nearer 5,000.

It is of great credit to the officials and people of the day that, only three years after the formation of the Militia, they could conduct manoeuvres of the scale that have been described in this article. Some of the faults found were fairly basic, but Nineteenth Century Victorians obviously had a Defence Force of which they could be proud.

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