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Australian Army History Unit
16 July 2014

AUSTRALIAN ARMY JOURNAL

No. 19 DECEMBER, 1950

Notified in AAO's for 30th November, 1950.

MILITARY BOARD.

Army Headquarters,
Melbourne,
1/11/50

Issued by Command of the Military Board.

Acting Secretary to the Board.

Distribution:

One per Officer and Cadet Officer.

AUSTRALIAN ARMY JOURNAL

A Periodical Review of Military Literature.

Number 19. December, 1950.

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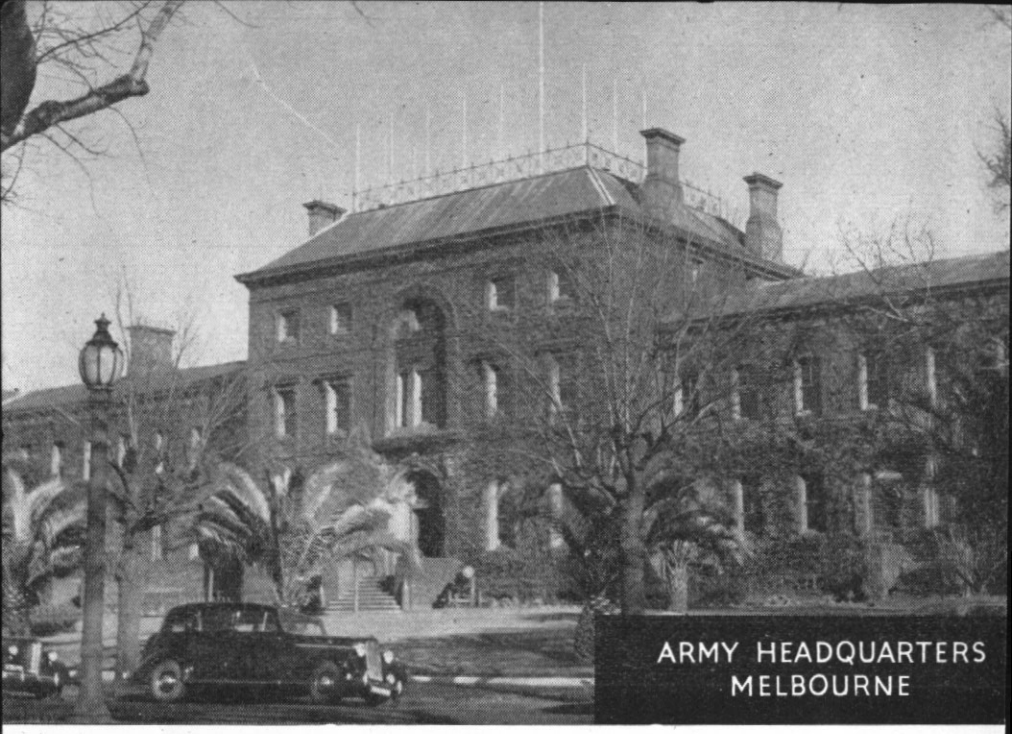

ARMY HEADQUARTERS
MELBOURNE

AUSTRALIAN ARMY JOURNAL

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Contributions, which should be addressed to the Director of Military Training, Army Headquarters, Melbourne, are invited from all ranks of the Army, Cadet Corps, and Reserve of Officers.

Loss of the Peace

Translated and condensed by the Military Review, USA, from an article by André Gerteiser in "Le Monde Francais," France.

WAR is essentially a political act. It cannot be conducted solely from the military point of view.

In the conduct of war, the political direction, which rests with the political chiefs, and the military direction, which is the province of the military chiefs, cannot be separated completely.

Furthermore, it is erroneous to believe that decisions arrived at by political leaders can be carried out by military chiefs who do not possess a profound political instinct.

The skill of the commander-in-chief cannot be limited exclusively to winning the war.

If a war is lost, no question as to the political skill of the commander is raised. In desperate cases like that of England in June, 1940, such functions of the commander disappear for the moment in the violence of battle.

But when a war is nearly over and victory is near, the ambition of the military chief should tend not only toward obtaining this victory at the least cost, but also toward terminating the war in such a way that the military disposition at the end of the conflict will be what his country might desire politically.

The commander-in-chief ought to direct his armies in such a way that their final disposition will make it possible for his country to conclude an advantageous peace and obtain compensation for the sacrifices made.

If a military chief does not make it possible for his country to win the peace, he has not fully accomplished his task. Victory is then reduced to a military act devoid of political sense, to a simple technical experiment in destruction.

The United States paid the cost of the rearmament of all the United Nations during World War II, even of those whose policies today are opposed to its own.

American chiefs, military and civilian, directed the war in Western Europe and in the Far East, and they won the war.

But it cannot be said that the United States today is in a good military situation, one that would permit it, in complete tranquility, to discuss terms of peace. The final disposition of the American armies did not help American displomacy obtain a good peace. Not only was

peace not won, but it has almost been lost. Grave errors must nave been committed. What were they?

Italy, November, 1943 - May, 1944.

In June, 1944, the finest opportunity was lost in Italy. The Allied High Command was occupied there with the execution of the general directives for the conduct of the war issued by the Teheran Conference in November, 1943.

These decisions were the result of consultation of the military and political chiefs. Naturally, they had been made on the basis of the strategic and political situation as of November, 1943.

At that time, the Russian line extended from Leningrad, which was still in a stage of siege, to a point east of the Crimea. The Russians were preparing a winter campaign on their northern and southern fronts in order to improve their position before the general attack of all the Allied armies on all the fronts, as planned for the beginning of summer in 1944.

The Russians wanted the Western Allies to relieve them during this period by tying down German forces. They did not wish to unleash their summer offensive of 1944 except in conjunction with an offensive on the Western Front, after the latter had been started.

At this time, the Western Allies had only one active front in Europe, the Italian front. It was necessary, therefore, to maintain it if this aid which Russia was demanding was to be provided.

However, the Allied High Command did not like this front. Its operations there had not been very successful. The Salerno landings had nearly been disastrous. Mountain warfare at first was almost unknown to the American and English troops. Losses had been heavy. The advance up the peninsula in the face of fairly weak German resistance had been slow.

The Italian peninsula is very mountainous. The Apennines, after serving as the backbone of the peninsula, separate the peninsula north of Tuscany from the plains of the Po. Farther on, the Alps surround this plain on all sides. The crossing of these Tuscany Apennines presented a problem that the Allied command and the staffs considered very difficult.

As for reaching and crossing the Alps, this was not even considered because of the difficult nature of such mountain operations.

The idea became fixed, therefore, in the minds of the Allied High Command that Italy was impassable and that nothing decisive could be done there. Since Italy could not be the gateway to Central Europe, a difficult and costly campaign that could never pay should not be carried out.

From this moment, the Russians began to draw up their peace map. They had already prevented the Anglo-Saxon forces from passing through the Balkans. They had grounds for fearing an untimely arrival of the armies from Italy in the Eastern Alps.

Naturally, the Russians were not slow in manifesting their approval of the plan to keep the Italian theatre secondary.

It was decided to keep the Italian front active, there being no other alternative. The capture of Rome

was necessary as a political manoeuvre.

Immediately after the taking of this city, the principal invasion front opposite the British Isles was to be opened, followed by the general Russian attack.

Then the Italian front would become secondary to the main battle.

The large Allied forces in Italy would be transported, along with the other Metiterranean forces, to Southern France, leaving reduced forces in Italy only strong enough to hold the terrain.

This strategic idea of November, 1943, cannot be said to have been an inspiration of genius. It did bear the marks of the disgust which the Allied High Command felt toward Italy. But a military plan of operations thus conceived, six months in advance, could be no more than a collection of probabilities, to be revised if the general situation changed.

Situation in Italy, June, 1944.

In June, 1944, the situation in Italy was not the same as in November, 1943. It was completely reversed. Thanks to the French mountain forces and to the new aptitude for this special type of warfare which the American troops had acquired after intensive training, the attack of May, 1944, had succeeded. Kesselring's German armies were thrown back in confusion beyond Rome after violent fighting.

In the face of this, the Allied High Command was forced to make a new decision. War is not waged in accordance with a plan firmly fixed in advance. Strategy that remains unaltered is dead strategy.

The generals in command in Italy, especially General Alexander and General Juin, strongly urged the Allied High Command to authorize the pursuit after the fall of Rome.

General Sir Henry Maitland Wilson, commander-in-chief of the Mediterranean area, makes no effort in his report to hide how desirable such a solution in the Mediterranean area would have seemed to him.

Victory rarely affords a chief so favourable an opportunity for marking the battle with his genius as did that in Italy during June and July, 1944.

Military Situation.

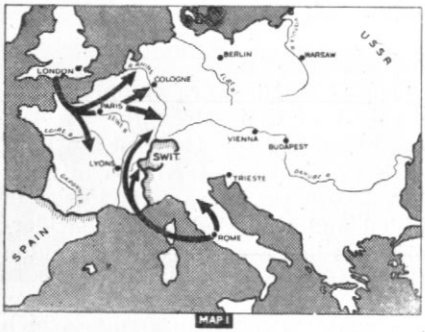
The Germans were completely at the end of their strength. At the beginning of June, General Mackensen's German Fourteenth Army had lost 25,000 prisoners. Its losses in killed and wounded were considerable. It had been forced to abandon the greater part of its material.

The German Tenth Army, which was defending the Adriatic region, was broken in morale, under strength, and retreating without offering much resistance.

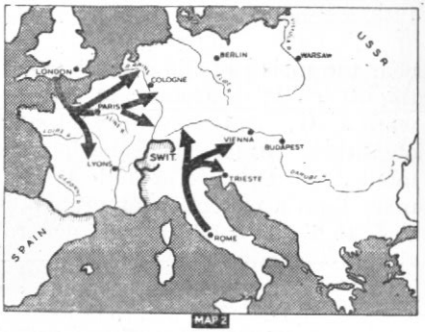
On 1 July, Marshal Kesselring's front extended west to east, from the Tyrrhenean to the Adriatic Sea by way of Lake Trasimene. Only the remains of 11 German divisions—5 infantry, 1 SS, 3 motorised, 1 paratroop, and 1 armoured—remained on the front of the American Fifth Army, 100 kilometers wide. On the 200-kilometer front of the British Eighth Army, the remains of 11 other divisions—7 infantry, 2 mountain, 1 motorised, and 1 paratroop —were located.

These divisions, which had been retreating since May and suffering defeat after defeat, had regrouped all the troops they were still able to assemble into combat groups (Kampfgruppen) whose strength varied between 500 and 2,000 men.

Losses were so great that 10 divisions only were able to organize 17 Kampfgruppen, or less than 2 per division. The average strength of these divisions was, therefore, from 800 to 1,700 men. These figures show what the condition of their infantry and the reduction of their artillery must have been.



Summer Manoeuvre, 1944.



Possible Manoeuvre, Summer, 1944.

The 22 German divisions on the entire front comprised a total of 67 Kampgruppen. The total strength of their fighting forces was about 50,000 men at most, dispersed over a front 300 kilometers wide.

Marshall Kesselring had only five or six reserve divisions back of the front, all of which had been drawn back because of their nearly complete destruction.

Kesselring was so short of reinforcements that he had been forced to raise a division of infantry from his own service forces for protecting Genoa from a probable landing, and he had to use a mountain division at Istria to guard the southern flank of his main route of retreat.

The Allied Army Group under General Alexander had the American Fifth Army under General Clark, of which the French Expeditionary Corps under General Juin formed a part, and the British Eighth Army.

This group could have been immediately reinforced by the American Seventh Army under General Patch, which had been formed in Sicily; and by three French divisions (2 armoured), stationed in North Africa, and the French Expeditionary Corps, which were to form the French First Army.

These four armies would have, therefore, comprised a total of 35 complete and well-trained divisions —including the Brazilian Division— of 350,000 troops provided with excellent equipment and abundant replacements.

Ten or more of these divisions were trained and equipped for

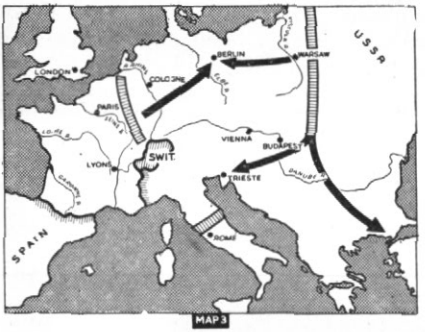
mountain warfare. Therefore, mountains would not have been an obstacle for Alexander's Army Group, thus reinforced, as was shown by the victory of 11 May on the Garigliano.

The fleet which transported the landing forces to Southern France and the one which later carried their supplies would also have been able to transport and supply the reinforcing elements of Alexander's Army Group. The theatre of operations was the same and the needs identical. With this mass of four armies, General Alexander was certain of being able to complete the pursuit and destruction of Kesselring's Army, of liberating Northern Italy, of crossing the Po, and of reaching Brenner Pass in the Alps.

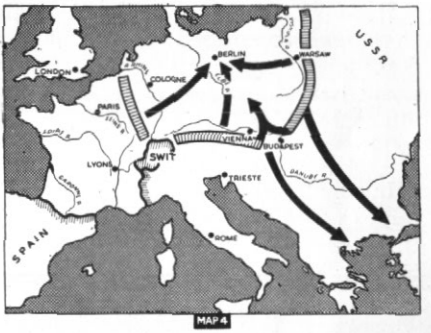
The Germans could not have reestablished themselves before reaching the line Brenner-Trieste, and they even had little hope of doing that.

The rapid occupation of the Brenner-Trieste line would, quite obviously, have been of greater importance in the over-all battle than the depressing halt in Tuscany that was forced on the Allied forces in order that the Allied High Command might stage a completely new operation.

What would Alexander's four armies have done after arriving at the Alps? Would they have been able to enter Austria or to go into Jugoslavia? We have no idea, but we do know that they would have forced the Germans to concentrate considerable forces against them, which neither Eisenhower in the West nor Stalin in the East would have had to face.



Actual Situation, September, 1944.



Possible Situation, September, 1944.

Lastly, when the German positions cracked, these four armies could have entered Austria and could have reached Vienna long before the Russians.

The Russians could not have complained about not having received enough aid before their decisive battle.

The Allied High Command, in spite of the advice of the Inter-Allied High Command of the Mediterranean Theatre and the British Imperial General Staff, said, toward the end of June, that its decision was final and that the inva-

sion of Southern France would not be changed.

This is the first instance in history that an army which was about to achieve victory abandoned the pursuit of an enemy in full retreat and withdrew from the field of battle for the purpose of sluglishly putting into operation elsewhere a plan no longer appropriate.

It is rare to find strategic incapacity so clearly defined. What would have happened if, instead of victory, it had been a defeat that had forced a change of plans?

It appears that the Allied High Command committed the mistake of considering only the plan they wished to apply, and of ignoring all alternate plans they might need later.

In the Mediterranean, the Allied forces could have been employed in three ways—a landing in Southern France; pursuit in Italy; or a landing in the Balkans.

The last two possibilities should have been thoroughly studied. If it was probable that the Balkan plan was less urgent, it is almost contrary to all moral law that the Allied High Command did not plan to achieve a complete victory on the front where it was already fighting.

It is regrettable that the staff passively applied a plan which had previously been outlined. This would have been commendable on the part of the subaltern, but it was not what one had a right to expect of an army chief.

It is an unjust underestimation of a combined staff to suppose that it could not rapidly have staged an operation that was technically so simple.

However that may be, the forces in Italy which were drawn back from the front, with their supporting forces, remained in Italy for two months at a decisive period of the war, and took part in later fighting only after the battle of France had already been won.

During this period, the Germans were able to manoeuvre and to move their forces to either of the fronts.

On the Italian front, Kesselring, unable to understand his respite, completed his demolitions, re-established his positions, and reconstituted his command and morale.

Were the strategic results which were to be expected from the landings in Southern France greater than those which would have been obtained by a drive on Austria? Quite the contrary. Map 1 shows the operation that was conducted. Map 2 shows the operation that could have been conducted.

As the result of the first operation, the Allies could expect only to reinforce indirectly Eisenhower's already victorious army. On the other hand, the enemy was freed of all other preoccupations on the Western Front.

Under these circumstances, the final operation could be only a frontal and costly battle. It permitted the Germans to prepare counter-attacks with their general reserves which, as a matter of fact, were carried out later in the Ardennes.

On the contrary, the second operation, pushing toward the Alps, would have broken up the German strategic position. It would have

forced the Germans to effect a regroupment which could have been done only in their rear areas, using the reserves which later opposed Eisenhower and Stalin.

It is not necessary for one to be an expert to see that the first operation reduced the amount of movement necessary and permitted the Germans to concentrate on whatever front they might desire to hold. It relieved them of all proccupation with the Alps, without even expediting the evacuation of France, which the advance of Eisenhower's armies provoked without any great German losses.

Aside from the Normandy front, only reduced and isolated forces remained in France. The Army Group under General Devers, which landed in Southern France on 15 August, encountered no serious resistance, except from isolated strongpoints, and in the Vosges Mountains.

As for a drive of the Army Groups under Generals Clark and Devers in the direction of Vienna, which was not attempted, it could have brought about the collapse of the Hungarian front ahead of the Russians. Also, it could have broken the Rhine front ahead of the Americans, either from fear of envelopment or from the envelopment or from the necessary withdrawal from those fronts of forces to be used in attempting to prevent the breakthrough from Italy.

In spite of first appearances, as soon as the Allied forces had arrived at the Alps, there would have been but one Allied front and not two—a single front whose two branches would have been united, not separated, by Switzerland.

Generals Alexander, Juin, and others, called attention to all these arguments in support of their plan. But the Allied High Command did not listen.

Political Error.

Yet, the political error committed by the High Command was still more serious than the military error. This political mistake now weighs on the destiny of Europe and the future of America.

How was it that the Allied High Command and the political authorities did not realize how different the final disposition of the victorious armies, on which the treaties of peace depended, would have been if the simplest of the military solutions had been adopted?

By August, 1944, Italy would have been in the hands of the Allies, and that would have prevented Mussolini's reappearance. Italy would have entered the ranks of the United Nations without the tragedies of the various liberations.

Anglo-American troops would have extended help to Jugoslavia by bringing them material and military support. The Russians, on the other hand, merely made a symbolical gesture at the eastern frontier of this country in September.

The difficult political situation in Jugoslavia would not have developed as it has since that time, in open hostility toward the Western Allies. Trieste would not have been a question endangering peace.

Anyone could have understood that the conditions of peace depended on the respective lines reached by the two groups, or their

allies, in the Far East and in Europe, and the manner in which they reached them.

No one could have failed to notice the selfish methods which the USSR pursued in its own war aims. Russia had been the ally of Germany for one year, and almost up to the very last minute it maintained its neutrality with Japan.

Before, during, and after the various armistices, Russia's military forces were always found where they were of most use in supporting her politically. It would be foolish to criticize Russia for this, but it would also be stupid not to note it.

The Allied High Command did not understand, or it did not call attention to, the different moral atmosphere and balance of power that would have resulted if the iron curtain had not been drawn across Europe.

On the contrary, the liaison which could have been established on the Danube by the simultaneous arrival of the Americans at Vienna and of the Russians at Budapest would have changed the entire political aspect of the final reduction of Germany.

Maps 3 and 4 illustrate this concept. In Map 3, the clash of the Allies and the Germans appears as it actually took place. Map 4 shows how the Balkans could have become a zone of contact and of joint action instead of an area dominated by only one of the Allied Powers.

Is it not possible that the peace of Europe was lost, for years to come, in those summer months of 1944?

There is one way only of human progress. It comes in moral effort, in the long, stubborn struggle towards ends perceived, but never wholly realised.

—*Paul McGuire.*

ARMY BRANCH
DEPARTMENT OF SUPPLY

Its Organization and Functions

Lieutenant-Colonel A. F. Swinbourne,
Army Branch, Department of Supply.

BEFORE the 1939-1945 War, equipment manufactured in Australia was mainly of United Kingdom design. Consequently, the Army was only concerned with inspection which ensured that production conformed to overseas drawings and specifications. During the war it was essential that some designs be modified to suit Australian conditions of manufacture and theatres of operations. Some development and design of equipment was carried out to meet this requirement. The Army staffs necessary for development, design and inspection formed part of MGO Branch.

After the cessation of hostilities, it was decided that Australia should participate in an Empire scheme for Defence Research and Development. Facilities for research and development (chiefly upon Long Range Weapons) were created in the Department of Supply, and it was decided that this work would be assisted if Army Staffs and Establishments engaged in design development and inspection were transferred to that Department. In effect, an organization similar to the Ministry of Supply in the United Kingdom was to be set up. On 1 February, 1950, Army Branch was formed in the Department of Supply.

In outline, the Department of Supply consists of the following branches:—

(a) Production Branch, which controls the activities of Government munition factories.

(b) Research and Development Branch, which includes Defence Research Laboratories, Aeronautical Research Laboratories and Long Range Weapons Establishment.

(c) Defence Supply Planning Branch, which ensures that the industrial resources of the country are used to the best advantage for the production of war material. There is also a Directorate of Contracts, for the procurement of civilian pattern stores.

(d) Army Branch has the functions of design and associated development and inspection,

all of which are closely related to the activities of the other branches of the Department.

Organization of Army Branch

The outline organization of Army Branch is shown in Figure 1.

The CASD is responsible to the Secretary of the Department for the technical functioning of the Branch, and for the administration and discipline of all seconded Army personnel. He is a member of Departmental Boards and Committees which control production, research and development, and industrial planning for war, and can thus represent the interests of the Service to those Boards and Committees.

Army Branch is staffed with military and civilian personnel. Those appointments for which a knowledge of service requirements and equipment is necessary, are filled by Army Officers and other ranks. Other appointments, both technical and administrative, are held by civilians.

Army Design Establishment

The Army Design Establishment is responsible for the design and development to the production stage, of Army equipment which has been initially developed by Research and Development Branch, private firms and inventors. Equipment is also developed by the Design Establishment in conjunction with the United Kingdom, as part of the Empire scheme for research and development. Where necessary, overseas designs are altered to suit Australian user requirements or conditions of manufacture. The Establishment provides Army representation to the Standards Association of Australia, thus ensuring that Service requirements are incorporated in materials and processes used in industry.

At the conclusion of the 1939-45 War, the design facilities of the Army were reduced, and only a very limited amount of work was carried out. When the establishment was transferred to the Department of Supply plans were drawn up to provide for personnel and facilities on a scale which would enable the requirements of the Army to be met. These plans have been approved, and action is being taken to implement them. The outline of the proposed organization is shown in Figure 2.

The Analysis and Planning Group investigates proposals for new developments to ensure that work proceeds on the most profitable lines. The Design Group designs equipment in conjunction with the Technical Services and Trials and Proving Groups. The main establishment of the latter is at Monegeeta in Victoria, where facilities are available to test performance of equipment, and to ascertain whether it will withstand Service conditions.

Inspection Directorate

Army Inspection has been functioning since 1921. The staff is large enough to handle current Service orders, and provides a good nucleus for expansion. Inspection staffs ensure that materials and the equipment and stores manufactured from them are in accordance with approved specifications and drawings. Other activities are the conduct of proof and experimental firings for all the Services, and inspection for other Government Departments, as required.

The organization, which is outlined in Figure 3, consists of a Headquarters and Inspection Staffs in all States except Tasmania. The Headquarters is responsible for

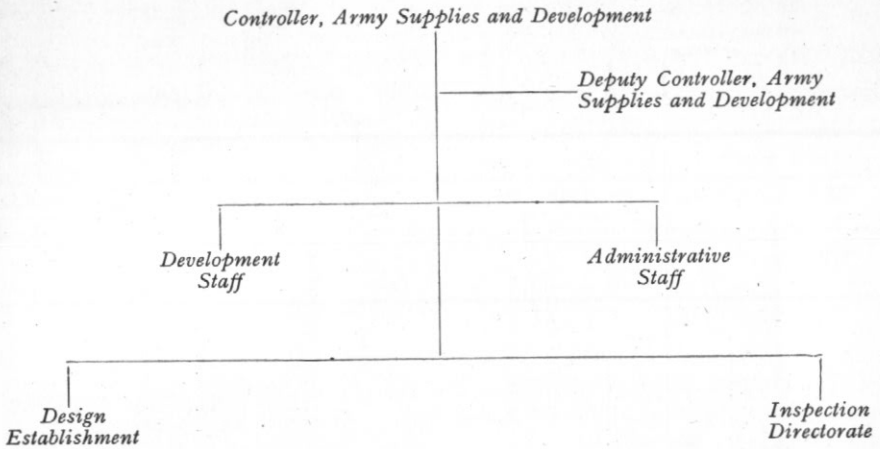


Figure 1

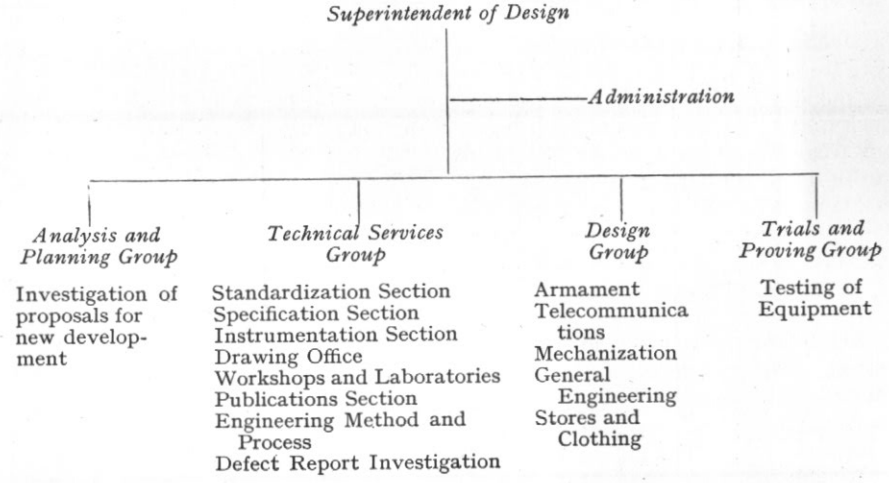


Figure 2

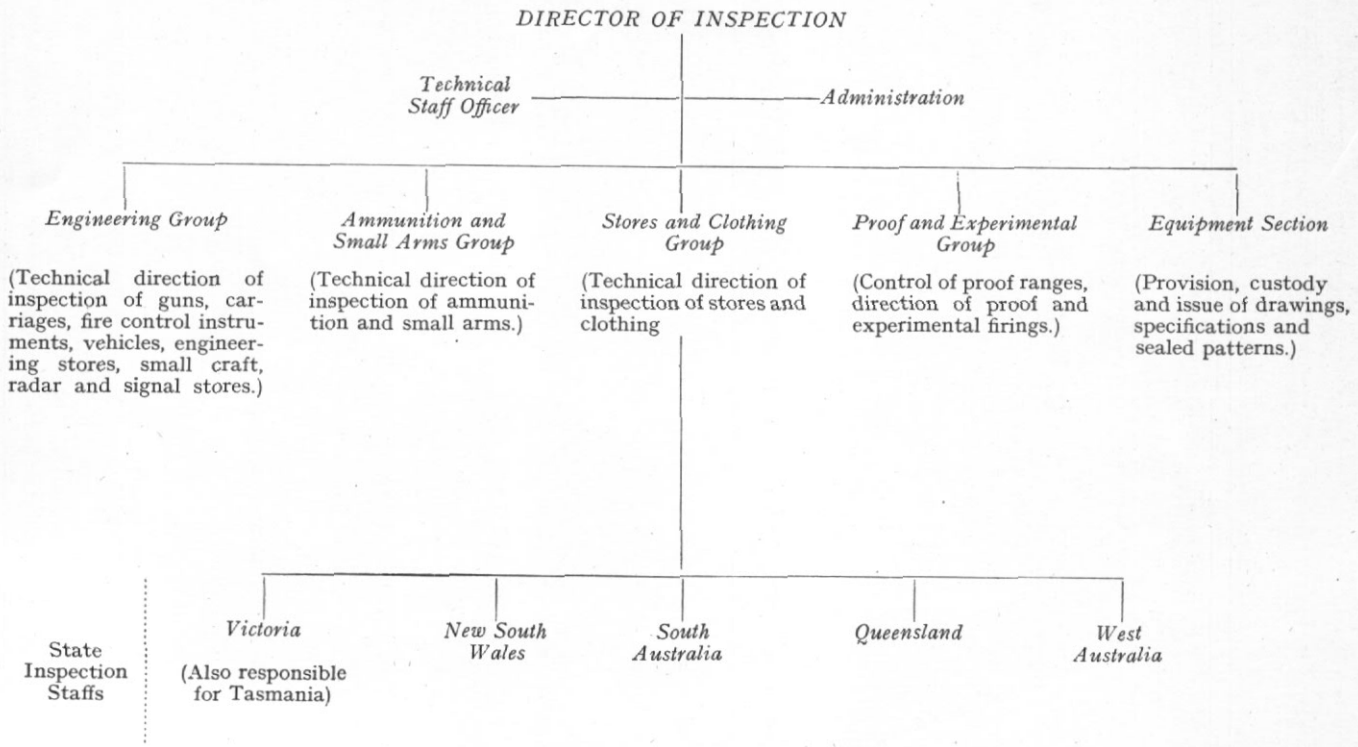

DIRECTOR OF INSPECTION
Technical Staff Officer
Administration
Engineering Group
(Technical direction of inspection of guns, carriages, fire control instruments, vehicles, engineering stores, small craft, radar and signal stores.)
Ammunition and Small Arms Group
(Technical direction of inspection of ammunition and small arms.)
Stores and Clothing Group
(Technical direction of inspection of stores and clothing
Proof and Experimental Group
(Control of proof ranges, direction of proof and experimental firings.)
Equipment Section
(Provision, custody and issue of drawings, specifications and sealed patterns.)
State Inspection Staffs
Victoria
(Also responsible for Tasmania)
New South Wales
South Australia
Queensland
West Australia

Figure 3

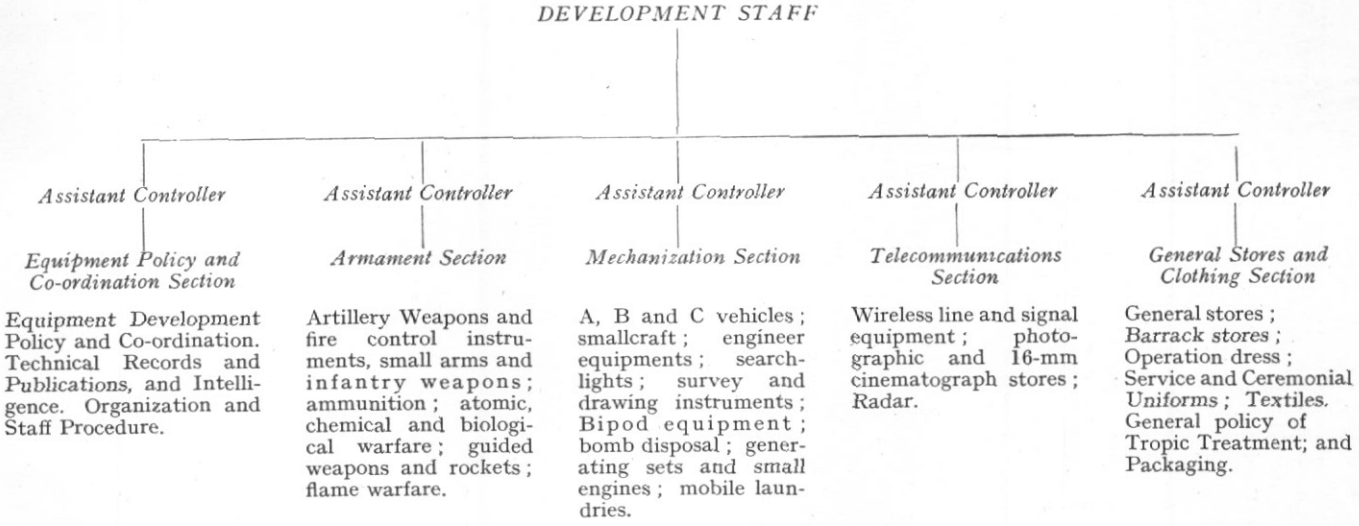

DEVELOPMENT STAFF
Assistant Controller
Equipment Policy and Co-ordination Section
Equipment Development Policy and Co-ordination. Technical Records and Publications, and Intelligence. Organization and Staff Procedure.
Assistant Controller
Armament Section
Artillery Weapons and fire control instruments, small arms and infantry weapons; ammunition; atomic, chemical and biological warfare; guided weapons and rockets; flame warfare.
Assistant Controller
Mechanization Section
A, B and C vehicles; smallcraft; engineer equipments; searchlights; survey and drawing instruments; Bipod equipment; bomb disposal; generating sets and small engines; mobile laundries.
Assistant Controller
Telecommunications Section
Wireless line and signal equipment; photographic and 16-mm cinematograph stores; Radar.
Assistant Controller
General Stores and Clothing Section
General stores; Barrack stores; Operation dress; Service and Ceremonial Uniforms; Textiles. General policy of Tropic Treatment; and Packaging.

Figure 4

general technical and administrative control of the staffs in States. The State Staffs carry out physical inspection in factories and inspection establishments; also proof firings.

Development Staff

Sections of the Development Staff are each under an Assistant Controller (rank Lieutenant-Colonel). The fields of equipment technology for which Assistant Controllers are responsible are shown below.

The duties of Assistant Controllers in respect of their own fields are to:—

(a) Act as the user representative of the relevant Arm or Service and as the link (on a staff level) with MGO Branch, and the relevant Arm or Service Director.

(b) Approve, on behalf of CASD, of designs and modifications to designs of patterns, drawings and specifications.

(c) Co-ordinate Design and Inspection activities in development (and initial production) and generally process projects.

(d) Ensure that the necessary consultation and co-operation is maintained with Research and Development, Production and Defence Supply Planning Branches of the Department.

Administrative Staff

The Administrative Staff relieves technical personnel of detailed administration of Army and civilian personnel. The normal procedure for Army administration is followed, and where necessary, co-ordinated with the requirements of the Public Service. Civilians are administered in accordance with Public Service regulations. The Administrative Staff also assist establishments such as Long Range Weapons Establishment at Woomera in Army administrative matters for which specialised knowledge is necessary regarding the requirements of both Department of Supply and the Service.

Conclusion

To summarise, Army Branch is responsible for representing the point of view of the user to the Department of Supply and, at the same time, keeping the Army informed of developments in research, design and production. The two main functions are the design and inspection of equipment.

Freedom is a flower that springs, not from constitutions, but from character; freedom could not prevail without self-disciplined respect for others.

—*Spalding.*

FIRE POWER

How to increase it!

Corporal K. L. Hanrahan,
2nd Battalion, Royal Australian Regiment.

AS a result of their experiences in the recent war, British Commonwealth armies have become very fire-power conscious.

As far back as 1906, Marshal Foch said in his book, "The Principles of War": "Owing to their volume of fire, modern arms make manoeuvring under fire impossible; owing to their range they make it necessary to take up fighting dispositions at a great distance, to deploy very far away; owing to the rapidity of their fire such necessities may be enforced by even relatively small numbers." The last phase is important, for it explains the effect and the use of fire power.

The term fire power includes the use of artillery, mortars and anti-tank guns as well as rifles and machine guns. Although the heavier weapons must be considered when discussing fire power, it is proposed to deal in this paper with the small arms group only, the group which confers upon a small number of soldiers the power to fire a large quantity of bullets in a short time.

A maxim generally attributed to Napoleon states: "The art of war consists in being stronger than the enemy at a given point." At the time of its origin the maxim meant having a preponderance of men at a certain part of the enemy's line at a certain time. If for the word "men" we substitute "fire power," we have the essence of modern warfare.

Recognising then the predominant part played by fire power in modern battle, the problem is how to create more fire power, assuming that more fire power is needed.

It could be done on the American system by making automatic and self-loading rifles a general issue. This system appears to work quite well, but is dependent upon the following factors:—

(a) Adequate supply of weapons.
(b) Quality of weapons and component parts.
(c) Standard of training.
(d) Ammunition supply.

A highly industrialized nation like America probably finds little dif-

ficulty in maintaining the output of rifles and ammunition in almost unlimited quantities and transporting them to the theatre of operations. The problem arises in keeping the ammunition up to the troops who expend it at a tremendous rate. This ammunition must be carried along lines of communication which may be subject to enemy interference, and it must be transported across country behind the troops wherever they go. The problem becomes very great when the number of men involved runs into millions.

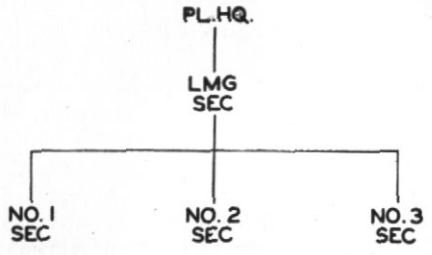
The weapons themselves also present certain problems. No absolutely foolproof automatic weapon, guaranteed all the time at any time, exists. The Garand, for instance, is a fine rifle, but it has certain inescapable disadvantages usually associated with this type of weapon. It is liable to stoppages which can occur at any time, it has a high rate of fire which occurs all the time, and it involves a continual replacement of worn or broken components.

The psychological factor must also be considered. Compare a soldier armed with a semi-automatic rifle and one using a fast operating bolt action rifle. The one using the semi-automatic will, and does, fire at any and every target, which is not always desirable. He feels that as he has plenty of ammunition at his disposal, and his weapon is capable of pumping out rounds at a fast rate, then why not use them and make sure that at least one of those bullets hits its target. Actually a soldier in this state of mind needs a lot of luck to hit the target at all.

On the other hand, the man using the bolt action rifle does not fire with a half-hearted intention of hitting. Knowing that his rate of fire is limited to the speed with which he is able to manipulate the bolt, he is more likely to make that first shot count because, after that he may not be in any position, or condition, to fire a second shot.

The semi-automatic rifle is expensive, it is not very reliable or accurate and, depending on the physical and mental condition of the user, it eats up ammunition at a tremendous rate. It cannot be used as a machine gun and creates supply problems out of all proportion to the results achieved. Finally, it puts the soldier in a perilous position by giving him a false sense of security and power.

On the other hand, the British service rifle, which is probably the best all-round general purpose rifle in any army, is 99 per cent. foolproof. It is sturdy, accurate and inexpensive, and it is not liable to stoppages. Judging by results achieved it is, when used correctly, equivalent to the same number of semi-automatic rifles, and it does not create anything like the same supply problem. From the psychological aspect, the soldier knows that his weapon is reliable and that it will not fail him in a critical moment. In this knowledge lies his true power, the power created by the reliability and consistent accuracy of his personal weapon.



How then can one increase fire power without adding to our difficulties of supply and transportation? How it is to be done without the industrial disruption and great expense involved in switching from one weapon to another?

It is suggested that it can be done by altering the existing establishments of infantry units to include an LMG section within the platoon. Although this suggestion may be open to criticism on various grounds, it seems to be the only one which offers an immediate and readily attainable solution to the problem.

It would be wrong to regard this new section as an appendage to the platoon. Since the platoon is a tactical unit one should neither make its administration top heavy nor blunt its tactical efficiency. One must arrive at something which will be neither too grandiose nor just another innovation.

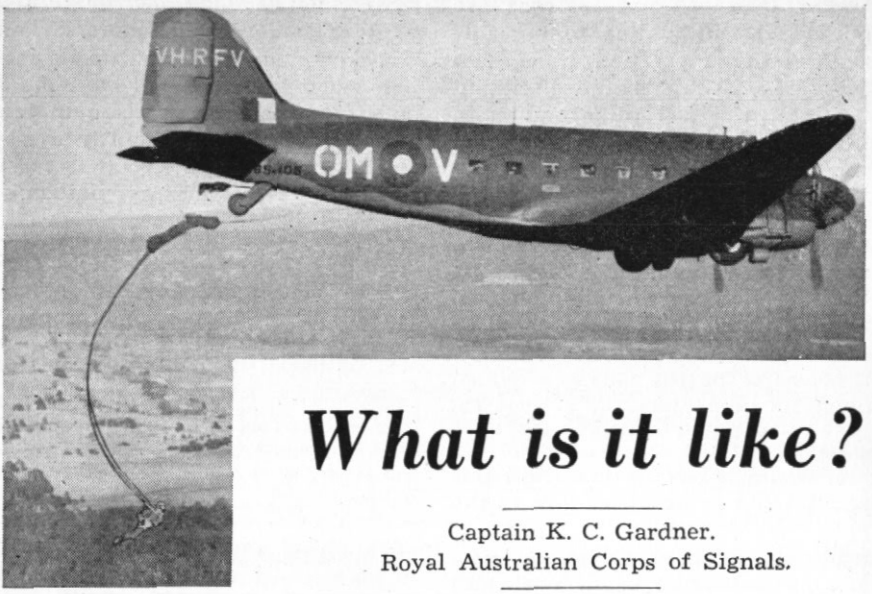
The proposed new section would comprise two LMG's, either Brens or perhaps something like the German MG 42, which is very reliable and has a fast rate of fire. The section would have four men commanded by a corporal. In action its fire tasks would be laid down by the platoon commander, but the siting and direct control of the section would be the responsibility of the corporal.

It is not hard to envisage the effect of these additional weapons and how they would greatly increase the fire power and flexibility of the infantry platoon. Used in conjunction with its existing weapons, a platoon could hold an additional 40 to 100 yards of front, perhaps more. When this advantage is carried up to battalion and brigade level we should have a tremendous increase in fire power directly and instantly available at the point where it is most required—in the infantry platoon.

This increase in the volume and flexibility of fire power could be carried to the company level by replacing the four LMG's on company headquarters (Higher Establishment) with two MMG's. These guns would constitute the company commander's immediate reserve of fire power and could be used, if necessary, on indirect fire tasks.

It may be argued that although adoption of these proposals would undoubtedly increase fire power, it would also increase ammunition expenditure to the point it would reach if the riflemen were armed with semi-automatic rifles. It must be remembered, however, that properly controlled and directed LMG fire is likely to be much more effective than the fire of automatic riflemen who, unless they are very highly trained and experienced, fire indiscriminately and wantonly without achieving worth while results.

In an LMG section fire, and consequently ammunition expenditure, is controlled and directed by the section commander who, by virtue of his training and experience, understands the capabilities and characteristics of his weapons, thereby putting into effect the principle that ground is conquered by a superiority of accurate fire and not by fire alone.



What is it like?

Captain K. C. Gardner.
Royal Australian Corps of Signals.

Parachutists are often asked to describe their experiences, particularly their first descent. This article describes the author's impressions of his first jump at Tocumwal early in 1943, when military parachuting in Australia was in its infancy.—Editor.

Tomorrow is to be the great day. For weeks we have been preparing. Now we are to pack our chutes for our first jump tomorrow. So I select a likely-looking one and with loving care I inspect, fold and pack it. I fill in the blue Parachute Log Book, but before signing it I check over the preceding entries and am pleased to note that this 'chute has been used successfully for several dummy drops. I chalk my name on the parachute bag and stow it carefully away. So far, I say to myself, so good. The jumping is to take place at dawn, while the air is calm. I make a special point of enjoying my dinner and then I turn in early.

Before I go to sleep my thoughts revolve around the morrow. Am I crazy? Here I am about to leap into two thousand feet of air—for what? There is no extra pay and no honour or glory.[1] My family and friends are in complete ignorance of the nature of my activities, and there is no badge or other distinction to give a clue. Maybe I'll get a broken leg or maybe—worse. Although we know the statichutes[2] are well designed and made, we as yet have insufficient personal experience with them to be completely confident. Anyway, I'll have a "confidence" chute of the ordinary ripcord pattern on my chest,[3] so I'll be O.K.—I hope. Rather drowsily I turn it all over in my mind, telling myself I'm not at all scared. I'll be O.K. Sure. Stop thinking and go to

1 Extra pay and red berets came later.
2 Special self-opening parachutes requiring no ripcord.
3 Used for first jump only.

sleep. That's right . . . Sleep . . . Be O.K. . . . Wish that fellow would stop snoring . . .

Suddenly an alarm clock cuts across my thoughts. I must have been asleep for hours. Well, this is the day! I grope my way to the window and peer out. Clear sky, no wind. Should be ideal for dropping, so there is no chance of their putting it off. Best get dressed. The tender[4] is to pick us up soon to take us to the kitchen for some food and then to the tarmac.

When we arrive the Douglas is standing on the tarmac outside the parachute-packing room. All eyes register the gaping doorway in the port side through which we are to make our exits. I collect my precious parachute and put it on, getting one of the RAAF instructors to check the fitting. Then the confidence chute is fitted. Clinging to my helmet and feeling like a trussed fowl, I waddle outside. I say "waddle" for want of a more descriptive word. The harness holds one in an awkward position, leaning slightly forward with legs apart. Clearly this is neither a graceful nor a comfortable attitude, so I remedy this by sitting down. We are all ready, but there seems to be some delay with the Douglas, so I spend the time mentally checking over all the things I have been taught about aircraft drill, exits, parachute control and landing. What's the hold-up? I am to be in the second plane-load, and am wishing someone would get on with the works.

Ah! Here comes the jumpmaster.[5] The first plane-load fall in and stagger to the Douglas, go through a final inspection and emplane. One engine starts, then the other, and the machine moves off down the runway. Now with a glorious roar it takes off. As the height increases from zero to ten, twenty, fifty, a hundred feet I catch an inkling of the feelings of those on board, and feel sympathetic.

The attention of all on the ground is now focused on the plane as it gains height and circles the airfield, the audience includes a number of those grand girls, the WAAAF's, by whose capable hands our statichutes are inspected and repaired. Now the Douglas is moving away in a wide circle to cross over the Dropping Zone about three miles away. He is flying with the port wing towards us, so we are able to discern that gaping doorway. He's over the DZ now. We watch intently, but nothing happens. Must be a dummy run. Long minutes pass as the Douglas sweeps around in another majestic circuit. They're near again now. It should happen at any moment now. Can't see anything. Should have brought binoculars. Perhaps he has refused to jump. Perhaps—— There he goes! A dozen voices roar at once as the little black dot drops from the distant Douglas. It has opened! The dot is now swinging below that lovely white mushroom. He floats down slowly and serenely and is lost to view behind the trees. We hope he landed safely. Another circuit and another man. Ten more circuits and ten more men. Suddenly I realize that the Douglas is landing, and my turn draws near.

As we in turn move to the waiting plane, my state of mind is one of grim if rather dazed determination. But the jumpmaster is reassuring

4 RAAF vehicle.

5 Officer who, during training, supervises the exits or jumping from the plane.

as he checks our harness, and I have an urge to wink at the ground and say, "See you later, mate!" I am to be the first to jump in this load, which is probably a mercy, so I emplane last and take my seat near the door. The synthetic lacquer and other aircraft odours seem to be stronger than usual, and they heighten the effect of unreality. We have had several flights during training, but this is different somehow—a sort of one-way feeling. But there is something comfortingly competent about the way our pilots taxi the big plane up the runway. At the far end the plane stops and swings around and then the pilots go through the drill of running up their engines and testing ignition at high revs. We're still on the ground and stationary—a last chance to back down. But everyone just tries to look nonchalant as the Douglas shudders and shakes as it starts to move into wind, faster, faster. Then in a moment the Douglas becomes calm and serene as it become airborne.

Soon we level out and start a circuit. I realize that it won't be long now, so with fumbling fingers I fasten my chin strap. All eyes are on me, but I am barely aware of anything but the door. The jumpmaster passes some superfluous remark and proceeds to hook up my strap.[6] On this hook will depend the opening of my statichute. So I have a good look myself to see that it is correct. Surely it can't be much

6 Part of the self-opening device.

longer. Let's get it over. I'm concentrating too much on what I'm doing to be nervous, but my mouth is dry and I feel almost intoxicated. Now something is about to happen, apparently, for the jumpmaster has moved to the side of the door, and is obviously preparing for business.

Red light! This means we are nearly over the DZ on a dropping run, and that I am to take up my position at the door. The jumpmaster beckons, but I hardly see him as I lurch to my feet and stagger awkwardly to the door. My mind is rather confused, as in a disjointed dream. I am acutely aware of the emptiness outside. Many emotions fight for ascendancy, but I resolutely keep my attention on the job in hand. The earth below appears stationary, or rather we do not seem to be moving over it. Painstakingly I put into practice the drill we have learnt as I take up the prescribed position—feet apart near the edge, legs sloping back and body leaning forwards with arms extended and gripping the edges of the door. I am conscious of a great wing pointing to the horizon where my own gaze is fixed. A tornado of some ninety miles an hour tears past the door in front of me. The jumpmaster speaks, but his words are swept away. I sense a change in the roaring of the exhausts as the port engine is throttled back to reduce the slip stream past the door. Any second now! I have firmly convinced myself that I shall not hesitate, and when I get that slap from the jumpmaster the pent-up tension of weeks of training produces an immediate reaction and I spring outwards and upwards, assuming the position of attention in mid-air with my arms across my chest. This is automatic and the result of training, and is done without any conscious effort. What I am conscious of is about three thrilling seconds of violent falling, then a firm but gentle tug at my shoulders. It has opened!

The roaring ceases. The aircraft odours have gone. I am no longer confined in that complex, noisy, powerful Douglas with those others. I am alone, floating literally on air, silently and serenely under surely the most beautiful piece of silk in the world, and only empty air underfoot. All this is very exhilarating, and while I strive to check the oscillation I am not paying much attention to where I am going.

Suddenly the silence is broken by the sound of the landing-instructor's voice through the megaphone. "Side-slip to the left," he says. So I side-slip. "Hold it," he says. So I hold it. And now I see that I am coming to earth, not on the nice clear DZ, but right in the middle of a patch of trees at one end of it. But my side-slip seems to be heading me for a small clear space. There is now a light breeze that carries me along at about five miles an hour. The ground is coming up fast now so I abandon the side-slip and prepare to land. Feet and knees together, knees slightly bent. I grasp the risers high above my head and at about ten feet I lift myself by my hands, thus reducing the speed of impact.

I hit and roll almost instantaneously. My legs tangle with the risers and rigging lines as the canopy billows in the breeze. I collapse the chute and get to my feet. Up dashes a jeep with the CO. "All right, boy?" anxiously. "O.K., Sir," I answer, and grin. Off he goes to the DZ, for the Douglas is coming over again with the next man. I watch

with the critical eye of the veteran as he makes his exit, then I reverently collect my chute, caressing its soft folds as I roll it up and set off. It is a fair step to the tender on the DZ, but my step is light and I whistle as I go. I have done it! I have made my first jump!

SMALL ARMS TRAINING—REVISED VERSION.

In August-September, 1940, 215th Infantry Brigade of the British Army, consisting of the 7th, 8th and 9th Battalions of the Loyal Regiment (North Lancashire) was under canvas at Coed Helen, near Carnarvon, on the North Wales coast. It was a newly-raised brigade, consisting mainly of men from Liverpool and Manchester. At that time I was commanding a platoon in an infantry company of one of these battalions, and the following incident took place, exactly as recorded, whilst I was personally giving a lesson on holding, aiming and firing the Bren.

My normal custom, during the last few minutes of a period, was to get one of the men to repeat what he had learned from the lesson. On this occasion, I picked No. 386, Pte. J - - W - -, who was, in civil life, a Wigan coal carter's mate—and looked like it! Sloppy, untidy and irrespressible, he was the RSM's permanent headache, but a good chap at heart and basically a good soldier.

"Now, W- - -," I said, "take my place, and tell us, in your own words, what you have got from today's lesson."

"Reet," said he, standing like a bag of spuds behind the LMG, "yer flops down be'ind t' gun like this 'eer (and he got into something like the right position, though his way of doing so was, to say the least of it, most unconventional). Then yer get 'old of this 'andle at t' butt end wi' yer right 'and, but keep yer finger along t' top. Don't touch t' trigger yet. This other 'andle up at t' front of t' gun is fer yer left 'and. Then yer moves this wheel round till t' proper number for t' range comes into t' hole. Then yer moves this 'ere gadget to R or A, according 'as yer 'ave ter fire one shot or a 'ole lot. Now yer look through this peep'ole, and line it up wi' this lump o' metal on t' front end, and line 'em both on t' bottom o' t' target like 6 o'clock on a watch. Then yer pulls trigger, an' if yer don't 'it it, then there's summat wrong wi' t' bluddy book."

—*Lieutenant G. C. Lightfoot, Wesley College Cadet Unit (Late Captain Loyal Regt.).*

ORGANIZATION AND EMPLOYMENT of the ROYAL AUSTRALIAN ARMY ORDNANCE CORPS

THE Commonwealth Department of Defence was established in 1901, and a Military Board of senior Army officers was formed to organize, train and equip an Australian Army on a national basis. One member of the Board was the Chief of Ordnance, under whom functioned a civilian Director of Stores. This director headed the Australian Army Ordnance Department staffed by civilians and organized along the lines of other Government Departments. It had a fixed establishment with no provision for expansion in war.

From 1913 until the outbreak of World War II in 1939, the Military Board negotiated unsuccessfully with successive Commonwealth Governments for authority to reorganize the ordnance service and place it on a military basis suitable for smooth and rapid expansion in time of war. Very little was accomplished, and in 1939, the Australian Army Ordnance Corps comprised:—

Regular Army: 36 officers and 375 other ranks, all workshop personnel.

Militia: 50 officers and 400 other ranks in Stores and Ammunition Companies, and 29 officers and 325 other ranks in Workshop units.

The strength of the *civilian establishment* was about 550. Covered ordnance accommodation in the Commonwealth totalled only 900,000 square feet.

After the outbreak of war the Ordnance Corps was converted from a civilian to a military basis. At the close of hostilities in 1945, the Corps numbered some 22,000 personnel, providing ordnance service for an Army of 471,000 troops on the mainland and in New Guinea and the Islands. At this time the Corps was manning installations housed in 11,100,000 square feet of covered accommodation.

In 1942, the responsibility for manning army workshops was transferred from Ordnance to the newly formed Corps of Electrical and Mechanical Engineers.

In December, 1949, the Corps became the Royal Australian Army Ordnance Corps, and in the following year authority was given to place it on a permanent basis in the Regular Army and the CMF. Regular

Not to be reprinted.

Army RAAOC personnel, together with an integrated civilian staff, are manning ordnance installations throughout the Commonwealth and with the British Commonwealth Occupation Force in Japan.

Peace Organization in Australia

At present maintenance for the AMF in RAAOC stores is provided by base installations on the mainland and a Base Ordnance Depot in Kure, Japan.

RAAOC base installations on the mainland are of the following types:

Controlling Depots

A controlling depot is a Central Ordnance Depot holding AHQ stocks with a central record of all AHQ stocks held in Australia. The controlling depots replenish as required the stocks held in subsidiary depots for the maintenance of the units of the Command in which they are located. The central ordnance depots are:—

(1) Central Ordnance Depot at Bandiana, Victoria, comprising—

1 Sub Depot, handling MT and small craft spares and vehicles.

3 Sub Depot, handling artillery, artillery spares and instruments, small arms, signal stores, other technical stores and scientific instruments.

(2) Central Ordnance Depot at Broadmeadows, Victoria, handling clothing, personal equipment, camp, barrack and general stores.

Subsidiary Depots

A subsidiary depot holds AHQ stocks in Commands. A central record of this stock is kept by the controlling depot. Subsidiary depots, usually designated Base Ordnase Depots, are established at various places throughout the Commonwealth, to provide maintenance for the units which they serve and to hold AHQ reserve stocks.

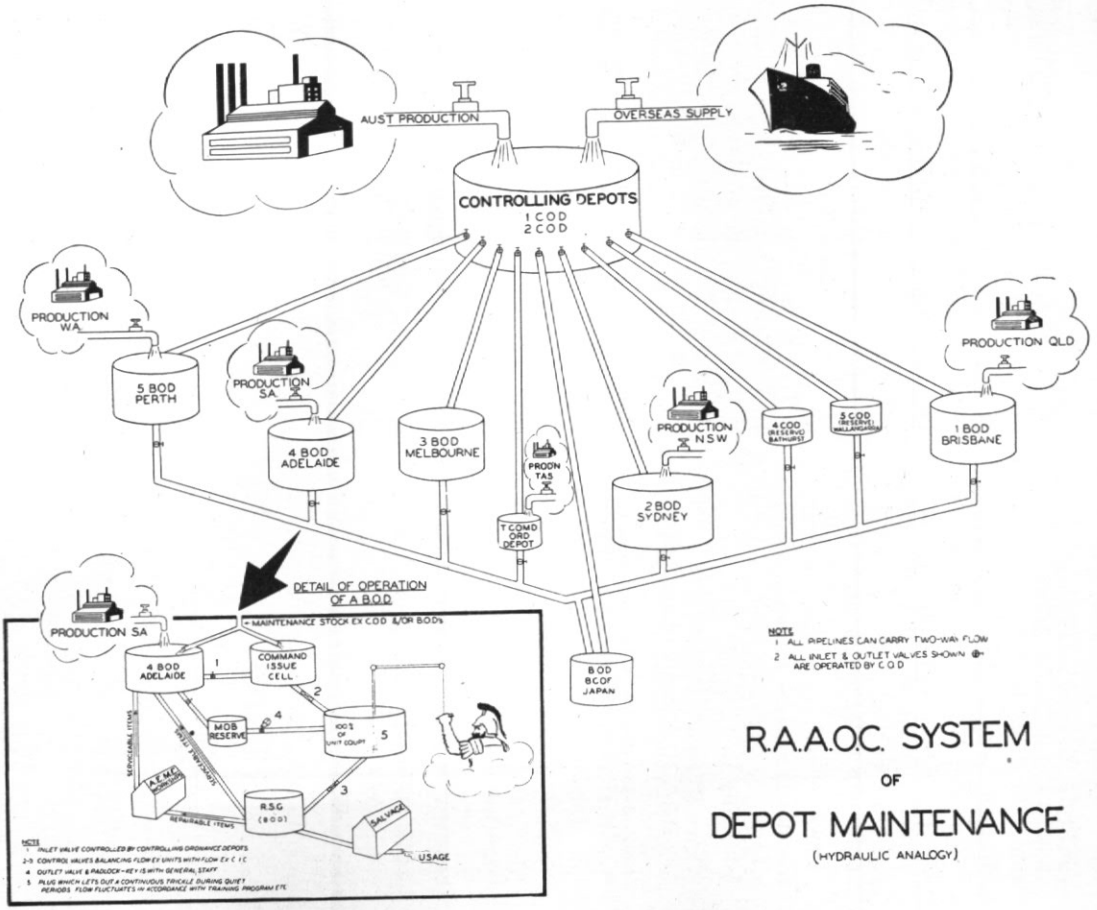
Within the Base Ordnance Depot serving a Command there is a Command Issue Cell which has under its control stocks from which to provide the current RAAOC requirements of the units of the Command. There is no central record of these stocks.

A somewhat similar system of depots is maintained for the storage and issue of ammunition.

Maintenance System in Peace

A Command Issue Cell has under its control stocks scaled to the maintenance requirements of the units within its Command for a given period. The length of this period is based on the depots' geographical position in relation to the main production centres and the receiving ports of Sydney and Melbourne. For example, the Command Issue Cell at 5 BOD in Western Australia holds twelve months' maintenance stocks, while the cell at 3 BOD in Victoria holds only three months' stocks.

When the stock balance of an item held by the Command Issue Cell falls to a predetermined level, a demand for replenishment is placed on the appropriate controlling depot, that is, on 1 or 2 Central Ordnance Depot. The stores are then released by the controlling depot from AHQ stocks held by the sub-



R.A.A.O.C. SYSTEM

OF

DEPOT MAINTENANCE

(HYDRAULIC ANALOGY)

sidiary depot nearest to or at which the Issue Cell is located.

The RAAOC is responsible for the provision of some 350,000 different items of supply, including ammunition. As a result of regular reviews of stock holdings by the controlling depots, information is forwarded to the Director of Ordnance Requirements at AHQ, who initiates action to obtain the supplies from local resources or from overseas.

The system of replenishment of the stocks held by the various depots mentioned above is shown diagrammatically in Figure 1.

RAAOC Field Organization

In accordance with AHQ policy that British organization will be followed as far as practicable in the organization of the field army, provision has been made in the CMF for a number of RAAOC units. Additional types of RAAOC units will have to be raised on mobilization.

The RAAOC units required to provide RAAOC maintenance for a field force are shown in Figure 2. Working from rear to front these units may be grouped as:—

Base units, which man the ordnance installations at the base in the theatre of operations.

Basic Army units, which operate in the Army area forward of the base, and which—

(i) Hold reserve stocks for the speedy replenishment of more advanced RAAOC units.

(ii) Provide direct RAAOC maintenance for Army troops.

Basic Corps units, which carry out within the Corps area functions similar to those performed by RAAOC units in the Army area.

Basic Divisional (Infantry and Armoured) units, which carry small stocks of warlike stores and their spares for the maintenance of units within the Division.

Units basic to other formations—airborne divisions, independent brigades, etc.

Base Units

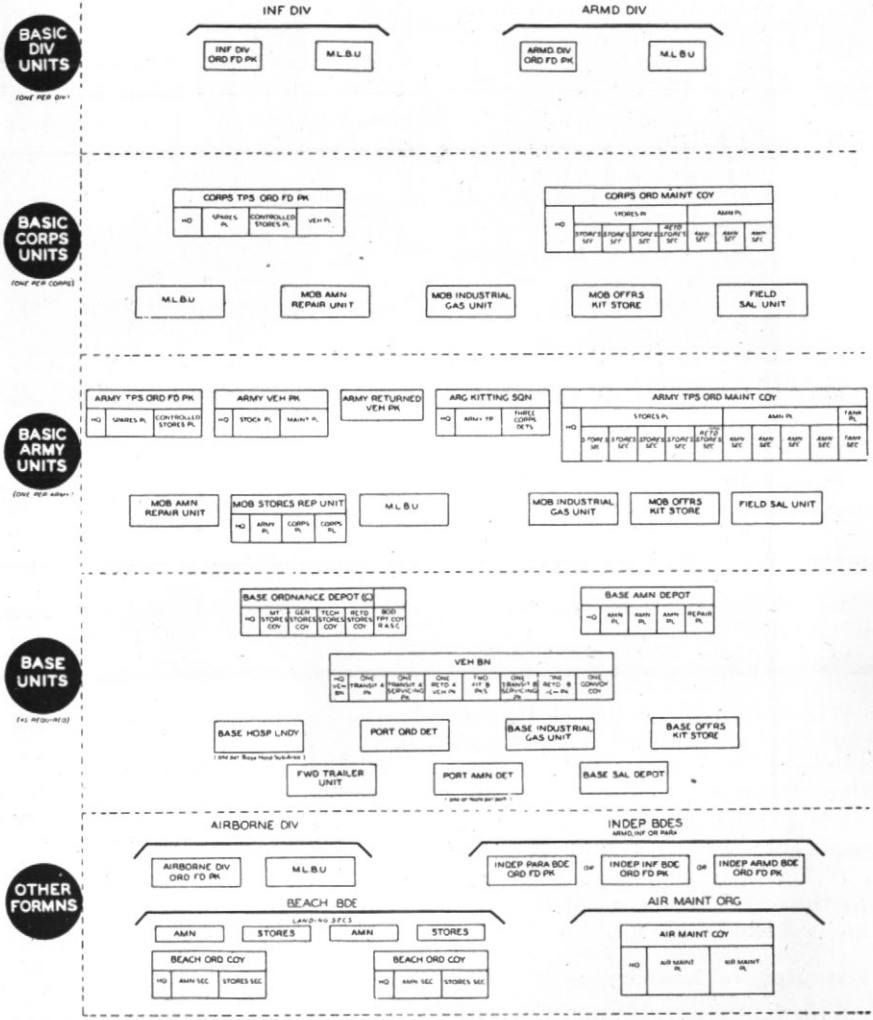
The type and number of the RAAOC units required for the base will, of course, be governed by the location of the theatre of operations and the size of the force to be maintained. However, the undermentioned units will probably be found in the base area of any sizable force operating overseas.

Base Ordnance Depot or BOD (Small Force)

One of these depots will be established as part of the main base. They hold a comprehensive range of RAAOC stores covering the requirements of six to twelve divisions and one to five divisions respectively. They can be split up into separate self-contained sub-depots to facilitate siting and dispersion.

These depots are stocked and replenished by shipments from one or more of the main support areas, supplemented as far as possible by local purchase. In addition to receiving stores from these sources and sending them forward as required, the BOD also receives RAAOC stores returned from field units. These items are either repaired at base workshops and made available for re-issue, or shipped out of the theatre of operations.

R.A.A.O.C. FIELD FORCE ORGANIZATION



Base Ammunition Depot

The BAD holds the theatre reserves of ammunition and has a maximum capacity of 30,000 tons. It has three Ammunition Platoons, each manning a sub-depot holding all classes of ammunition, and one Repair Platoon which carries out repairs and minor modifications to the ammunition held in the depot.

Vehicle Battalions

These units are established in the base on the scale of one per corps. This unit rceives stores and maintains vehicles arriving in the base, and sends or takes them forward as required.

Forward Trailer Unit

In effect this unit is a miniature stores depot on wheels, and is sent forward to:—

(a) Mount an operation.

(b) Re-equip a formation.

(c) Provide maintenance supplies when the L of C becomes extended.

Port Ordnance Detachments and Port Ammunition Detachments

These units are allotted to each port used for the unloading of ordnance stores, vehicles and ammunition. Their function is to advise the dock officers on technical matters connected with the unloading of stores, vehicles and ammunition, and their onward consignment to depots and vehicle battalions.

Base Hospital Laundry

This unit is provided only when a separate Base Hospital Sub-Area is established. It is designed to wash hospital linen for 6000 beds.

Other RAAOC units usually established at the base are the Base Industrial Gas Unit, the Base Officers' Kit Store and the Base Salvage Depot.

Basic Army Units

The more important RAAOC units operating in the Army Area forward of the base are:—

Army Troops Ordnance Field Park

This unit carries spares for Army units only, and holds the Army reserve of controlled stores.

Army Vehicle Park

This unit holds the Army reserve of vehicles and guns.

Army Returned Vehicle Park

Holds all unfit mechanical vehicles and guns returned from the forward area pending their repair or backloading to the base.

ARG Kitting Squadron

This is a sub-unit (RAAOC) of the Armoured Replacement Group, RAAC, which is the unit responsible for the holding and delivery to RAAC units of replacement tanks and other AFV's in battleworthy condition and complete with crews. The Kitting Squadron holds in stores lorries stocks of AFV kit to:—

(a) Equip to scale all the replacement AFV's and self-propelled guns passing through the ARG for delivery to fighting units.

(b) Replenish as quickly as possible the AFV kit requirements of all RAAC and RAA (SP) units.

Army Ordnance Maintenance Company

This unit handles in transit all ammunition and RAAOC stores coming up from the base for issue to

units and Ordnance Field Parks, and holds small maintenance stocks of operationally urgent items such as engines, signal cable, tyres and gas cylinders. One of its sections segregates returned stores which have a further period of life and for return to the Base Ordnance Depot from those which are completely worn out and must be sent to the Base Salvage Depot. Its Tank Platoon unloads tanks at the Tank Railhead and hands them over to the Armoured Replacement Group.

Other Army Units

The Mobile Stores Repair Unit and the Mobile Ammunition Repair Unit carry out "stitch-in-time" repairs and minor modifications to stores and ammunition in transit forward from the base. The Mobile Industrial Gas Units produces oxygen, acetylene and inert gas (for flame throwers), while the Field Salvage Unit collects salvage and sends it to the base. The Mobile Laundry and Bath Unit provides bathing and laundry facilities for Army troops.

Basic Corps Units

From Figure 2 it will be seen that the major RAAOC units found in the Army area are also found in the Corps area. The main differences to note are:—

The functions carried out in the Army area by the Army Vehicle Park and the Army Returned Vehicle Park are, in the Corps area, carried out by the Vehicle Platoon of the Corps Troops Ordnance Field Park.

Normally there is no ARG Kitting Squadron in the Corps area, and no Tank Platoon attached to the Corps Ordnance Maintenance Company.

Basic Divisional Units

In the Divisional area the Infantry Division Ordnance Field Park is organized as:—

Headquarters, for the technical control and regimental administration of the unit.

Brigade Platoons, which are allotted on the basis of one to each brigade in the division. They carry limited stocks of MT spares and selected spares for all weapons, engineer and signal equipment in the brigade. These platoons are self-contained and capable of operating independently with their brigades.

The Divisional Troops Platoon, which carries a similar range of stores for the units of divisional troops, plus the divisional reserve of assemblies, industrial gases, etc.

A General Stores Platoon, performing the executive work of supplying and distributing RAAOC stores (other than mechanical vehicles, vehicle spares, vehicle stores and their spares) to all units in the division in response to their detailed indents.

Other RAAOC Units.

In addition to the RAAOC units included in the basic organization of the Army, the Corps and the Division, certain other units are provided for special purposes. These units are shown under "Other Formations" in Figure 2.

Beach Brigades are established to handle RAAOC stores over the beaches in the early stages of an opposed landing. The Stores and Ammunition Handling Sections give technical advice in the loading and unloading of ships, together with assistance in the rapid identification

and sorting of ammunition and RAAOC stores for sending on to the Beach Ordnance Company.

The Beach Ordnance Company holds ammunition and RAAOC stores during the initial maintenance phase over the beaches. In the early stages of an opposed landing RAAOC stores are forwarded to the Company made up in sets known as "Landing Reserves," each set containing approximately 30 days' requirements of essential items for a brigade group. As the Rear Maintenance Area is established the landing reserve sets are followed by "Beach Maintenance Packs," containing stores and spares for a wider range of equipments.

The Air Maintenance Company, RAAOC, is part of the air maintenance organization, and is attached to the HQ of the Army Air Transport Organization (AATO). It holds RAAOC stores awaiting air transport, crates ammunition and heavy equipment and packs small items in panniers.

Conclusion

The re-organization of the Royal Australian Ordnance Corps as a result of the experience gained in the recent war has enabled the Corps to create an organization which can:—

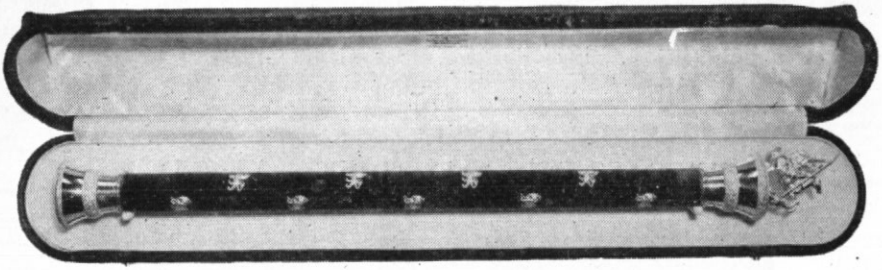
(a) Provide the day to day ordnance requirements of the AMF.

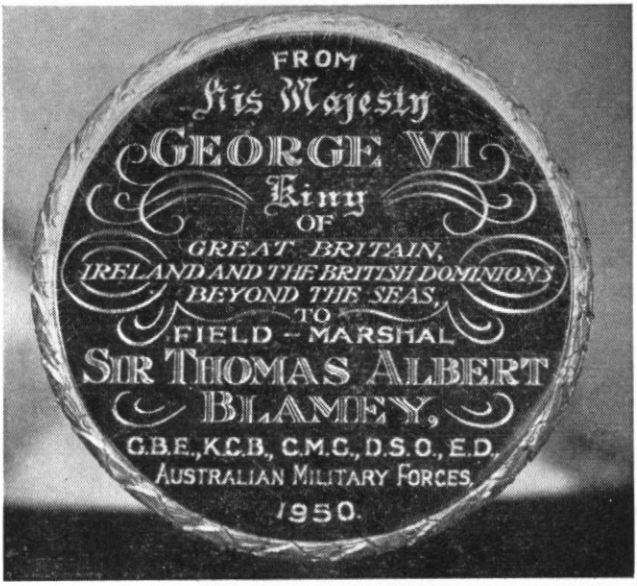
(b) Be expanded rapidly and smoothly to provide the ordnance services for a field army operating in Australia or overseas.

World War II shifted the balance of world power—economic, political and military—to two major powers, the United States and Russia. So far as the United States is concerned, we have sometimes shown reluctance to accept our new role in world affairs, while the Communists have not only taken their role for granted, but have eagerly assumed that it is their opportunity to gain their Marxian Utopia—world Communism.

—General Omar N. Bradley, USA.

THE FIELD MARSHAL'S BATON





On 16 September, 1950, His Excellency, the Governor-General, on behalf of His Majesty the King, presented the baton pictured above to Field Marshal Sir Thomas Blamey at Heidelberg Military Hospital.

The baton is about 22 inches long by one inch in diameter, covered with red velvet decorated with gold lions. The top has a chased gold mount with a wreath of rose, shamrock and thistle, surmounted by a St. George and the Dragon. The lower end has a similar chased gold mount upon the base of which is engraved the inscription.

JET FIGHTER AIRCRAFT IN SUPPORT OF THE ARMY

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This article was written originally for publication in a British service journal. Consequently the sections describing inter-service responsibilities may differ in detail, but not in principle, from the practice followed in Australia.—Editor.

Even in these modern times when scientific progress is so rapid, the jet engine has proved to be one of the outstanding inventions of recent years. The speed of fighter aircraft in the Royal Air Force has increased by something like 50-60 per cent. in the past four or five years, and comparable increases are likely in jet bombers when they are produced.

At speeds approaching the speed of sound most present-day aircraft become uncontrollable owing to the effects of "compressibility." With more advanced designs compressibility is delayed until the speed of sound is reached and, in fact, some aircraft, both in the UK and the USA, have exceeded this speed and have therefore become supersonic. The speed of sound varies with temperature and is, therefore, reduced as altitude is increased. In order to attain supersonic speeds aircraft have to be designed so that they are controllable at speeds in excess of the speed of sound, and they must also be provided with tremendous power so that the very great resistance to the aircraft is overcome.

Indications are that it will not be very many years before all fighters, and probably bombers, in service with the RAF are supersonic, and it is impossible to estimate what maximum speeds will be reached.

In order to achieve their very high performance jet aircraft have engines which give out great power or thrust, and the consumption of fuel is about six times greater than that of the petrol engine at low altitudes. This consumption is governed by the density of the air, so that the higher the plane flies the less fuel it consumes.

It will be seen that this high consumption has limited the endurance of jet aircraft very appreciably. To increase endurance much more fuel has to be carried, and therefore the general tendency is for fighter aircraft to get larger.

The introduction of jet aircraft has raised many problems for both the Army and the RAF, and in this short paper I shall discuss briefly the effect of jet fighter aircraft on

requirements between the two services.

Army Requirements from the RAF.

The Army requirements from the RAF have not changed fundamentally since the last war. The tasks which fighter aircraft in a tactical air force are required to carry out fall into the following categories and in the following order of priority:—

(a) The establishment and maintenance of air superiority.
(b) Reconnaissance.
(c) Interdiction.
(d) Direct Support, and
(e) Harassing.

The Establishment and Maintenance of Air Superiority.

Due to our limited resources, it is an accepted fact that the Army will get very little direct support in the early phases of a future war until air superiority has been attained. It is unlikely that the battle for the air will be won outright until the end of the war, so that, although air superiority might be achieved, a proportion of the air forces must always be available to maintain it throughout the duration.

It is the policy of the RAF and, incidentally, of the American Air Force, that no aircraft is designed specifically for close support operations. Future practice will be the same as in the last war in that existing fighters which were employed in the air battle were later modified for the carriage of suitable armament, rockets, bombs, etc., for the close support role.

Reconnaissance.

During recent trials, jet fighters proved to be reasonably suitable for all types of reconnaissance. The pilots' view from the cockpit is much improved compared to that of the propellor-driven aircraft. Experienced pilots are able to pick up details on the ground fairly easily, though naturally this becomes more difficult as the speed of the aircraft is increased. In past operations pilots noted down information on knee pads. This is no longer possible in present high-speed aircraft, and alternative methods are under consideration. The most likely one to be adopted is the fitting of a wire recorder. By speaking into his micriphone, the pilot makes a record, which is played back to him at his de-briefing.

Navigation is also affected by high speeds and meticulous preflight planning is essential. Though the endurance of the jet fighter is very limited, its range is likely to be stepped up to meet all demands for tactical reconnaissance by the fitting of drop tanks and/or increasing its internal fuel capacity. For artillery reconnaissance, a role in which the jet has also been tested, short endurance will probably limit the pilot to one shoot per sortie.

Photographic low level reconnaissance at high speed is limited by the speed of the cameras, but it is understood that suitable cameras will be produced in the near future which will overcome this limitation.

Interdiction, Direct Support and Harassing.

Of these, I shall deal only with direct support, because of the three types of operation, it is the one which directly interests the soldier. Though jet aircraft have been in service with the RAF for a comparatively short time, many trials

have been carried out using them in the direct support role, and it is generally agreed that in many ways they will be more suitable in this role than their propellor-driven predecessors.

As already mentioned, the view from the cockpit is extremely good, and enables the pilot to maintain sight of the target throughout the attack. It is expected that bomb and straffing attacks will be carried out with much the same accuracy as achieved at the end of the last war, while rocket attacks will be more accurate due to the fitting of gyro gun sights. This accuracy, however, depends on many occasions on the ability of the Army to mark the targets, but I shall deal with this problem later.

It will be remembered, particularly by those who took part in operations in Europe, that "cab rank" was a must effective method of direct support. Aircraft, flying over the front line, were briefed by an Air Contact Team with the forward troops, and targets were attacked with a minimum of delay. The limited endurance of the jet might preclude it from being used extensively in this role, but it is hoped that it might be possible for certain vital phases of an operation.

Tactical Air Force Requirements from the Army.

Tactical Air Force requirements include:—

(a) Provision and construction of airfields.

(b) The marking of certain targets.

(c) The identification of its own troops.

(d) The defence of forward air strips.

(e) Transportation of aviation fuel.

There are other responsibilities, including the provision of certain communications, etc., but I shall deal only with the above as they are directly affected by the jet aircraft.

The Provision and Construction of Airfields.

The Army is responsible for constructing all airfields for a tactical air force. This commitment was a very big one in the last war, as the amount of material and mechanical equipment required involved the use of large numbers of ships and vehicles to transport it and tied up a great number of troops. The length of airstrip required was then in the order of 1,200-1,400 yards. Today's fighters require much longer runways, and the present requirement is 2,000 yards.

No one can say what length of runway will be required by fighters used by tactical air forces of the future. If the present trend of development continues, and the all-up weight of fighters gradually increases, then it can be assumed that runways will have to be so much stronger. Instead of forward airfields being constructed of thin tarmac, steel sheets or wire mesh, it may be that the army will have to provide strips similar in strength and texture to the first-class highway.

From the above it will be appreciated that airfield construction is likely to become a much bigger commitment than ever before. Quite apart from the increase in material and labour required, suitable sites for airstrips of 2,000 yards and over

would be, in some countries, extremely difficult to find.

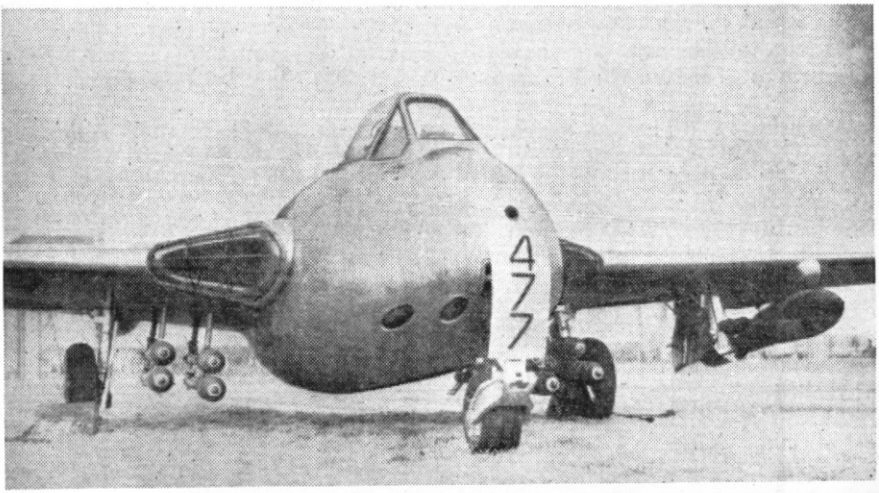
The average time required to construct forward airstrips in the last war was four days. It is estimated that airstrips for present-day fighters would require about 10-14 days. If the Army is to receive continuous air support it is important that new methods of speedy airfield construction are developed.

(b) Artillery Ground Smoke.

(c) Artillery Airburst Smoke, and

(d) Mortar Smoke Trails.

Unfortunately these aids, though helpful, are far from adequate and their effectiveness varies with theatre and terrain. Unless more exact target markers are developed, it would seem that in the target area at least the advantages of speed and



A Vampire Carrying Rockets and Bombs.

Target Marking and Identification of Own Troops.

In direct support operations most targets will be small, poorly defined and well camouflaged. Furthermore, invariably they will be well defended, thereby making a slow or orbiting approach unsafe.

The Army assists whenever possible by providing aids to navigation; these include:—

(a) Several types of ground marking, the most efficient being fluorescent strips.

surprise, which the jet can provide, will have to be forfeited.

Defences of Forward Air Strips, Anti-aircraft Aspect.

Can adequate anti-aircraft protection be given to airfields by LAA Regiments against jet fighters, and for that matter, to our forward troops? Enemy fighters may fly in low, at speeds of something like 400-500 mph, attack their targets and "breakaway" from the attack without climbing. It is virtually impossible for a manually traversed gun

like the Bofors to bring aimed fire to bear on such a target, and the only alternative is to fire on fixed lines in the air, which will probably put the attacking aircraft off course, or at the best get a lucky hit.

The AA gun has a chance of bringing aimed fire to bear if:—

(a) The attacking aircraft orbit the target area prior to attack, or

(b) Break away upwards on a constant course for a minimum of 8-10 seconds.

Those of us who have taken part in trials and exercises with jet fighters know that little or no warning is given of their approach. It is doubtful if local "look outs" would be able to give the alarm in time, and radar cover over the ground against aircraft flying very low is negligible. Unless early warning methods and LAA are greatly improved, it seems very probable that, in the next war, forward troops on both sides will be continually troubled by air attack.

It should be remembered, however, that small arms fired by determined troops can be most effective against enemy aircraft. Many pilots who took part in ground attack operations in the last war have said that they were much more frightened of small-arms fire than by light or heavy flak.

Transportation of Aviation Fuel.

A tactical air force, fully equipped with jet aircraft, would use an enormous amount of fuel. The present jet fighter uses about 360 gallons an hour, compared with the Spitfire, which uses 60 gallons an hour, so it will be seen that this will tie up a large amount of transport.

The above are, I think, the main problems brought about by the introduction of jet aircraft, but mention should be made of aircraft identification and briefing of pilots.

It is very difficult to identify a small fighter aircraft flying at high speed, and ground troops will have to be highly trained in this subject.

To ensure accuracy, particularly for direct support operations, pilots will have to be very carefully briefed, and all information sent back by demanding units must be meticulous in detail.

To summarise, it can be said that, although the jet engine has brought profound changes to the technique and pace of aerial warfare, it has not had a revolutionary effect on the co-operation between air and ground units. The techniques of land/air warfare evolved in the final stages of the last war can still be applied (with small modifications) by jet-engined aircraft, and there is every reason to believe that satisfactory joint operations can still be planned and executed in a land campaign.

ORGANIZATION AND EMPLOYMENT
of
NATIVE TROOPS

Captain C. J. Orme.

Introduction.

The formation, training and employment of native troops in Papua and New Guinea calls for methods of recruitment, organization and tactical employment which are not appropriate to white troops and are, therefore, not fully understood by the average officer.

During the recent war experience revealed that quite a few angles existed which were injurious to the optimum functioning of such a unit. It is proposed to set out what these experiences were and what is considered necessary to overcome them.

Brief History.

At the commencement of the war in 1940, the Papuan Infantry Battalion was formed with a small nucleus of Europeans and Papuan Constabulary (Natives). Recruitment was carried out by officers of the Papuan Civil Administration.

The original unit was trained for a period of fifteen months before being called into action. During this period extremely little or no reinforcement was made and the troops were, to a degree, efficient "parade ground" soldiers. They had a limited knowledge of rifle, bayonet, grenades and machine carbines. with a few exceptions, they had no knowledge of machine guns, either light or medium. The tactical employment of this unit was speculative.

The unit was drawn from a variety of tribes in Papua. It was not known if this unit could be used in a direct assault role. Nor was it known if its value in reconnaissance would be worth while. However, circumstances which existed at the time made it necessary for this unit to be employed in action. In the initial stages it was found that one tribe (the Orakaivas) were of no use whatsoever and de-

serted completely to a man. This may have been because of the fact that they were operating in their own tribal area. Little experience was gained with this particular tribe later. However, the remaining troops, particularly those which came from the Papuan Constabulary who had a certain amount of intelligence and had received training prior to enlisting in the PIB, were extremely useful.

During operations in the Owen Stanley Range and later on the Kumusi and Mambari Rivers, they were quite capable of carrying out independent action, particularly patrols, both fighting and reconnaissance.

The unit HQ was stationed at Ioma and had to be supplied by escorted native carrier lines or by air. From this base patrols operated as far north-west as Morobe and south-east to Oro Bay.

The objects of these patrols were:

(a) Ascertain enemy strength between the Kumusi River and Morobe, both along the coast and on the inland tracks.

(b) Clear any opposition in the area which was within the capabilities of the unit.

The strength of these patrols varied from ten to approximately sixty. On occasions patrols comprised entirely of natives were employed and were successful. Several natives were decorated for leadership and bravery during this period.

At this time the European staff of the unit were, in the main, officers who had been with the unit from its commencement and knew the native well and, mainly by trial and error, assessed what tasks could be carried out and those that could not. The number of troops involved at this stage was approximately eighty natives and six Europeans. Due to sickness and casualties this strength was reduced. The unit continued operations for another three months, when it was withdrawn to Moresby for reorganization and reinforcement.

A training depot had been established at Port Moresby and the new recruits with which the original unit was reinforced had had only about two months training. The battalion was then organised into three companies which were designed to operate under command of normal formations. The European staffs for these units were trained mainly from units in New Guinea and had little or no experience with native troops. These three companies then operated in the Markham, Ramu, Salamua, Finschhafen, Madang and Wewak campaigns. From these and under a new organization, the New Guinea Infantry Battalions were formed.

Characteristics.

These troops are quite capable of producing good results. Their tactical employment will be discussed later.

They are capable of being trained to WO rank and of performing the duties of Company Sergeant Major. They are extremely loyal. The following example of loyalty bears mention.

During operations on the Kamusi River area, a native NCO and three privates were left on guard in the village of Katuna. They were subsequently cut off from the rest of the unit. About four months later

an officer of the unit was informed that there were native troops in Katuna village. He entered the village at approximately midnight and was challenged by the NCO, who was still doing his turn of guard. It transpired that they had kept strictly to their original instructions —had maintained a guard throughout the period and had accounted for twenty-three Japanese troops.

The Native's jungle craft is of the highest order. For example, the following is a method by which movement at night is detected.

The native merely sits and listens to a tune which is caused by the normal night insects. When movement is made the tune changes due to the fact that these insects stop and the ones which are asleep awake. The European cannot notice this change in the tune, but the native never misses it. There are numerous other examples of this nature which can be quoted.

The native is capable of excellent jungle camouflage and, properly led, can exploit the principle of surprise to the maximum. They are also capable of exceptionally fast movement. For these reasons the European as well as the native must be lightly equipped. (Equipment will be discussed later.)

The average recruit inducted into the unit was not educated and had to be taught such simple things as the time of day, closing one eye, normal hygiene, writing (to a limted degree) and numerous other minor matters of general education which are necessary to make them efficient soldiers.

If a unit is formed on a permanent basis, the introduction of some basic educational training would be of value. However, this should be secondary to development of their natural skills.

They are capable of being trained to fire any automatic weapon efficiently, infantry minor tactics and limited clerical duties. They could be trained as Drivers MT, and are meticulous in their care of vehicles as well as weapons. Some initial difficulties were found in the variance of types of natives enlisted. This could be overcome by instilling a team spirit and unit pride.

They adapt themselves readily to anything of a mechanical nature. Natives enlisted should be very carefully selected, and experienced European officers could determine their value in a matter of three months. Under existing regulations it was not policy to discharge those who are considered inefficient and regulations should be amended which will permit a "weeding out" process to be utilised.

Native troops are quick to gain a pride in the service and consider themselves a "cut above the average," and by their bearing and pride of service and uniform, are respected by the remainder of the native population. Properly officered they will cheerfully accept any task given them, whether it be work, normal routine, drill and training, or active service within their capabilities.

Any failure on the part of the European staff, even though it be of a minor nature, will have a serious deterrent effect on the response given by the native. No matter how good the name of the European with his troops may be, any slight miscarriage of justice, loss of temper, or lack of enthusiasm will destroy the faith and trust of the native which will be very difficult to rectify.

One of their main drawbacks was their attitude towards artillery and mortar fire. However, this improved slightly with experience and it is considered that this could be overcome by subjecting them to "Noise" courses, etc. Also, at the time, they did not seem to comprehend that it was possible for someone to fire guns which could not be seen and could land a shell in close proximity to them. The basic principles of artillery and mortar fire should be made known to them.

In their own country, i.e., Papua and New Guinea, they can practically live off the land for long periods. It should not be assumed from this that their reactions in operations in rain forested foreign countries (Burma, Siam, etc.) would be the same. They depend largely on their locally acquired jungle craft for success. Whether they would have the same confidence in another environment is yet to be determined.

Tactical Employment.

It is considered that a unit of this nature can perform much the same tasks in jungle warfare as a divisional regiment does in normal operations, i.e., close and medium reconnaisance.

For purposes of discussion its tactical employment will be divided into three parts—

(a) advance,

(b) in attack,

(c) in defence.

Minor variations would be necessary for the withdrawal.

Broadly, the unit is most suited in a reconnaissance capacity. However, there are occasions when it could be employed quite effectively in other roles.

The Advance

The unit is suitable to lead, unassisted, an advance when contact with the enemy has been lost.

It is very suitable for protective and reconnaissance duties to the flanks of the advance.

It can assist infantry in patrolling, especially after it has made contact and before the infantry have deployed.

It can best be employed by being placed under command of the leading formation. It must be allowed freedom of action to carry out its role in its own way.

In Attack

Reconnaissance and Information—either by fighting or reconnaissance patrols. An example of reconnaissance carried out by the Papuan Infantry Battalion was that this battalion maintained continuous patrols in the Markham Valley for approximately three months prior to the Nadzab/Lae operations, and later carried out continuous reconnaissance along the whole of the Markham Valley and the Ramu Valley to the Finisterre Ranges in advance of the 7th Division.

In harassing role against the enemy L of C. This can be carried out over long periods such as three months, and over practically any distances provided supplies are available either by air or land L of C.

For flank protection before and during the main assault.

As guides under their own European supervision for normal fighting or reconnaissance patrols.

Detailed mopping up after the attack. This was very effectively carried out after the Buna and Finschhafen campaigns. Approximately 1000 Japanese were mopped up in the Kumusi River area and 2000 on the Rai coast.

Tasks Not Suitable During the Attack

The following tasks are considered unsuitable in attack:—

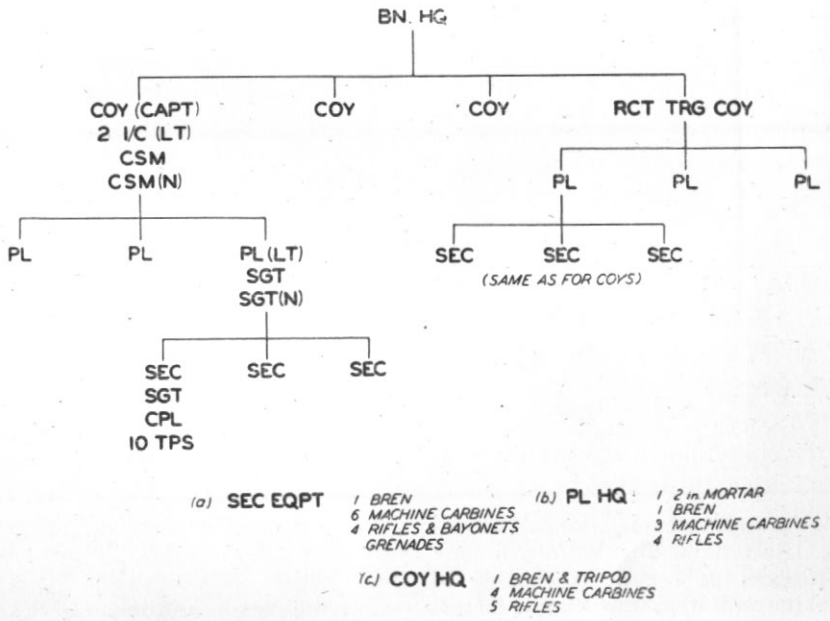
Direct assault against a well prepared defensive position (wired, mined and covered by DA and MG fire). However, they are quite capable of assaulting minor positions.

They should not be allocated to European formations as individual guides unless directly controlled by their own officers.

They are not suitable in the initial waves of assault landings, but should be landed in the second or third wave, depending on the progress of operations inland; assembled behind our own FDL's and then allowed to penetrate the enemy defences and exploit to his rear.

The tactical employment of a unit of this nature should be made known to commanders at all levels so that any misunderstanding in their employment will be eradicated. The European officer in charge of the native unit under command should be allowed to assess any task given him and advise on its suitability to his particular troops. This factor was not thoroughly appreciated during the last war.

The European authority within



the native unit was seriously undermined by the close association with other troops and the normal Australian attitude towards natives, and this more or less fraternisation caused a great deal of damage. On any future occasion when native troops are operating in close co-operation with normal units, all ranks should be made to realise the damage they can cause by being over friendly, and strict instructions should be issued which will prevent the native adopting an attitude of contempt for the European.

In Defence

In defence, the unit is suitable for the following tasks:—

To act in the capacity of a screen forward of the main defensive position. In this role it is quite capable of giving early warning and information and can quite effectively give an indication of enemy intentions prior to attack.

In a flanking role—well to the flanks of the main defensive position. They can offer effective protection in this role and give early warning of any out-flanking movement by the enemy.

As harassing troops well to the rear of the enemy FDL's on his L of C. This was effectively carried out during the operations in the Buna-Sanananda campaigns in 1942. Native patrols harassed both enemy land L of C and barge traffic close into the coast. It is also capable of giving information of enemy movement along his L of C.

As a reserve capable of fast movement to a flank to delay any enemy approach. The unit is capable of moving "off the tracks" and of effecting a considerable degree of surprise.

As escort and protection on our own L of C.

The above tasks are listed in the order for which the unit is most suited. The native likes to feel that he is part of the main effort.

The following tasks are considered unsuitable in defence:—

Holding ground within the defensive perimeter of the main position which becomes subject to heavy artillery and mortar fire.

As a counter-attack force to retake ground lost within the main position.

Positions to be occupied by native troops should be well forward or to the flanks of the positions occupied by normal European units. It was found that native troops did not work to their full advantage when entangled with European troops, but were more prone to be effective when operating independently.

Organisation.

It was found that a battalion organisation on a company basis—four companies, each of three platoons, each platoon of three sections, each section having one European sergeant, section commander, one native corporal and 10 native ORs was most suitable. One of the companies was to be a Training Company. (See Figure 1).

It was found better to replace sections rather than individuals when reinforcement was required. This ensured that the native retained his own section sergeant (European) and also maintained the team spirit.

For the reasons outlined above the

Recruit Training Company is organised on the same lines as the companies, and in fact parallels the organisation of the companies. The platoons in the Training Company are permanently affiliated to the operational companies and progressively the sections in those platoons are affiliated to the platoons in their respective companies.

The company is the basic operational unit and the Battalion HQ is an administrative and co-ordinating element. It would only be on rare occasions that the Battalion would operate as a battalion.

When the companies are in training they take out their respective platoons from the Training Company and the four platoons are trained together.

Conclusion.

It is considered that the formation of a native unit under European officers and NCOs in Papua and New Guinea would have definite advantages.

Natives who have had war service experience are available now and could quickly be brought to a state of efficiency necessary for a nucleus around which to build the unit.

European staff may be a difficulty at present. The best method of providing the staff would be as follows:—

(a) Select three or four officers with previous experience.

(b) These officers to train young officers, preferably RMC graduates.

(c) Select two or three WOs or NCOs with previous experience to train NCOs.

All these officers and ORs to be "in at the start" when the recruitment and training of native instructors begins.

There is a tendency for Europeans to have a diversity of opinion in the method of control of natives. This will **NOT** work in a native unit. The control of native troops must be uniform.

There is a real and definite future for a unit of this nature. There is a requirement for some type of reconnaissance element in jungle operations and native troops appear to be the answer.