

UNCLASSIFIED

0120000922

Australian Army History Unit

16 July 2014

AUSTRALIAN ARMY JOURNAL

CAPT. HOWARD

No. 209 October 1966



AUSTRALIAN ARMY JOURNAL

Editor: A. J. Sweeting
Staff Artist: G. M. Capper

The Australian Army Journal is printed and published for the Directorate of Military Training by Renown Press Pty. Ltd., and issued through Base Ordnance Depots on the scale of one per officer, officer of cadets, and cadet under officers.

Contributions which should be addressed to the Editor, Australian Army Journal, Directorate of Military Training, Army Headquarters, Canberra, are invited from all ranks of the Army, Cadet Corps and Reserve of Officers.

\$10 will be paid to the author of the best article published in each issue. In addition, annual prizes of \$60 and \$20 respectively will be awarded to the authors gaining first and second places in the year.

The information given in this Journal is not to be communicated either directly or indirectly to the Press or to any person not authorized to receive it.

UNCLASSIFIED

AUSTRALIAN ARMY JOURNAL

A periodical review of military literature

No. 209, OCTOBER 1966.

Contents

- 3 A Message from your Sponsor
Lieutenant-Colonel H. L. Sabin
- 15 How to Extend Communications with the 10 Set
Lieutenant G. A. Mayes
- 18 Surprise and Security in the Shenandoah Valley Campaign
Major J. S. Kendell
- 40 The Shangani Patrol: A Rhodesian Alamo
Lance-Corporal K. S. Deal
- 42 Book Review: *Spotlight on Singapore*
- 47 Letters to the Editor

CROWN COPYRIGHT RESERVED.

No article in this Journal is to be reproduced in whole or in part.

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



RAMU VALLEY CAMPAIGN. Sappers of the 2/6th Field Company bridging the Gusap River on 3 October 1943 while troops of the 2/14th Battalion pass over in their advance towards Dumpu and into the difficult Finisterre ranges beyond.

Militarily the Ramu and Markham Valleys were very important. Earlier they had provided the easiest land route whereby Japanese reinforcements and supplies could reach Lae and Salamaua from Wewak and Madang. To the Allied forces they were suitable for the development of the air bases needed to control Vitiav Strait and to provide air cover for the land advance.

Photograph: *Australian War Memorial*

A Message from your Sponsor:

Lieutenant-Colonel H. L. Sabin,
Royal Australian Infantry

PART I — THE POLICY AND TASK

I am the sponsor—you are the user—and 'they' are the developers. I can assure you that 'they' are on our side. By means of this article I want to bring you up to date as to what your sponsor and 'they' are doing for you; and to emphasize the vital part you (the user) play in getting our Army equipped for war in a tropical theatre as regards clothing, personal equipment and general stores.

Responsibilities

(a) The Sponsor

- (1) The gleam in the eye—the idea (from the user).
- (2) The statement of user requirement.
- (3) The raising of a project and its priority.
- (4) The prototype.
- (5) The trial in the field.
- (6) Modifications and final acceptance — co-ordination.
- (7) Finance, introduction and scaling.

(b) The User

- (1) What do you need and why?
- (2) Evaluation and field trials.
- (3) Objective reporting.
- (4) The scale required.
- (5) Modifications to improve the item with due regard to real economy. Mark 2, 3 etc.

Lieutenant-Colonel Sabin is a 1939 RMC graduate, who served with the AIF in World War II in the 4 Anti-Tank Regiment and as adjutant of the 2/26 Battalion during the 1941-42 Malayan Campaign.

After the war he occupied a variety of staff and command appointments, including GSO 2 HQ 34 Inf Bde (1947-49); BM HQ 7 Inf Bde (1950-51) and Comd PIR (1951-53). He was GSO 1 Aust Army Staff UK (1954-55), GSO 1 DSD AHQ (1955-57) and AA&QMG 3 Div (1957-60). He was for two years Joint Inspector, Directorate of Establishments AHQ before taking up his present appointment in 1962 with DOS, Coordination of Design and Development, in which his section has been responsible for the 'staff side' of clothing, personal equipment and general stores—part of a team which includes other qualified technical people from MGO Branch who work closely together in this field.

(c) The Developer

- (1) Produce prototypes and trial items. Put forward ideas.
- (2) Modify as required.
- (3) Final specification which can be produced in quantity by local industry.

Background**(a) Theatre of Operations and Concept of Operations**

- (1) Hot, humid tropical environment, cool at altitudes, especially at night. In monsoon latitudes wet/dry seasons, otherwise equatorial rainfall.
- (2) Ground communications poor generally and movement by vehicle limited. Air (helicopter) an important means of communication but payload limited.
- (3) Enemy elusive, knows the country, and of guerilla type. Counter-insurgency activities likely to predominate, especially during the early phases of campaign.

(b) User Requirements

- (1) The basic user requirement is for our troops (especially infantry) to be able to operate in this terrain without the need for large and sophisticated logistic backing; and, if need be, to be able to carry the essential needs of war on the man and be re-supplied by air.
- (2) In the fields of combat clothing, personal equipment and general stores therefore, we need a range of items which are light in weight, durable, simple to handle and which will give the soldier the maximum protection from environmental hazards but, at the same time, not overburden him with non-essentials.
- (3) The majority of these items must be man-portable, all must be able to be carried in a Landrover trailer and all must be air portable and air droppable.
- (4) There must be, within the group of items, those which represent a minimum operational or 'hard core' scale and others which can be added to make conditions easier if the necessary transportation is available.

Our Basic Policy

- (a) 'Everyone is an expert on clothing but some are more expert than others.'—*Anonymous*.
- (b) Perfection is not of this world and therefore we do not hope to achieve it.
- (c) We aim at getting an 85 per cent acceptable item introduced quickly as a Mark 1 version and improve on it be-

fore the Mark 2 is procured. We do not skimp our design studies nor our trials, but we do save time at every step in the introduction process. We sometimes take calculated risks.

- (d) We keep our ears 'close to the ground' where our field forces are concerned and value their comments. We value their experience too and visit them in the field. We believe usage in the field will show up any weaknesses more effectively than any other methods. We do value and use laboratory methods also.
- (e) We believe that 'something' reasonably efficient is better than 'nothing' and also that an 85 per cent efficient item 'now' is better than a near perfect item 'never', or in 5 years.
- (f) The 'Mark 1 policy' we believe is the only sensible policy in our field.

Lead Time

- (a) *Definition.* The time taken from the statement of requirement to the placement of an order for bulk procurement.
- (b) Perhaps the following speech may one day be made in some country or other during a parliamentary debate on the armed services. I can envisage a young vigorous MP saying:

May I remind the Government of the processes through which all the Services go when they start to consider any new piece of equipment?

I will take the example of trouser buttons. First, there is a committee which examines the general principle, for instance, the use of trousers. It says that over many years of glorious history they will continue to wear trousers and that with trousers go trouser buttons. That general principle having been accepted, a design of trouser button is considered and eventually a prototype trouser button is produced which, I imagine, is stared at by all the members of the committee. Eventually, one unfortunate, or perhaps fortunate, regiment or battalion is singled out to be equipped with the new trouser button. There then takes place user trials of this trouser button and reports go back to the committee and after considerable time the trouser button is adopted. I say 'considerable time' because the general average for this process is five years.

- (c) We have reduced lead time to the minimum by using the 'parallel' system. We start our bidding for funds, scaling process and production of specifications at about the time the field trial is commenced so that we are ready to order immediately the trial (if successful) is completed. These processes in the past took a year or so.
- (d) All we need from the user is a "vote of confidence" in the item as a Mark 1 version. We will not live with this Mark 1 version forever but will improve on it.

- (e) *Trials.* During the trial it is the user who holds the fate of the item in his hands. Anything other than objective reporting is valueless and delays progress unnecessarily. I could quote you the case of the machete which took 10 years.

Remember: We can never achieve perfection. How important is this item to you? Will it stand up to the task? Is it better than nothing? Are you prepared to wait for the improvements you seek? If you want to 'knock it' then do so in clear unequivocal terms—leave no doubt; but do not do so on relatively minor grounds. We want a clear Yes or No—make your provisos if necessary.

(f) *The Capacity of Industry to Produce*

- (1) The user having conducted a trial, which, shall we say, has been successful, then wonders what 'they' are doing to get the item out to the units. 'They' in this case is usually Army Headquarters. One, two or more years may go by and still the QM cannot place his indents. I know exactly how you feel.
- (2) Assuming we have had no difficulties in getting funds for initial procurement, this delay is invariably caused by industry. Most firms which have the capacity (and desire) to accept contracts also have very full order books and we simply 'get in the queue'. At this point in time we enjoy no priority whatsoever in these matters and this is a cold, hard fact of life. This is not my department but I can assure you we prod and prod hard to get our stores procured. The prosperity which we, as a country, enjoy, is a real factor in getting defence orders for any items dealt with as a priority.
- (3) Take the new boot GP of which we require about 200,000 pairs to equip and maintain our Army. It is going to take in excess of three years to have these produced. This is not an unrealistic period because this item of military footwear must be built to specification and the firms capable of doing this job in Australia are limited in number. Our developers and technicians actually have spent many days in the factories training the people concerned.
- (4) We cannot accept what I term 'built-in obsolescence' in our combat clothing and equipment which is designed for a function and not a fashion. Therefore, I want you to appreciate what goes on behind the scenes in order to get our contracts completed.

- (g) *Other Countries and Lead Time.* Most other countries have substantially longer lead times than we do here in Australia and at the recent Eighth Commonwealth Conference on Clothing and General Stores they were impressed at the speed with which Australia has produced its range of field shelters and lightweight general stores.

Other Countries — Clothing, Personal Equipment and General Stores

As far as items for use in a tropical theatre are concerned, Australia is ahead of other countries. I make this statement not only on what I read by way of exchange data but what I have seen in overseas theatres.

Policy of Issue of New Items and Disposal of Old

- (a) Our policy is to get things to the user as quickly as possible if it is necessary for operations or operational training. This is relatively easy if it is a new item and it is not replacing something already in service.
- (b) In the case of an item which supersedes an existing item our policy is:
- (1) Full unit entitlement to operational units.
 - (2) Full unit entitlement to Regular units of the Field Force.
 - (3) A pool in each Command equal to about 40 per cent of unit entitlement for Field Force units of the CMF located in the command. This will enable units in camp to be equipped to full scale for field training during their respective camps.
 - (4) A token quantity to AMQ schools and training units for demonstration and familiarization purposes.¹
- (c) With regard to combat clothing the policy is to equip operational units first and progressively equip the remainder of the Army as appropriate. Except for headwear and footwear, the tropical combat clothing being developed is not suitable for the climate of Australia. However, we have introduced one special item exclusively for the Australian climate which is the cool weather field jacket. A pool of these items for use by the CMF has been established in the southern States. We are developing further this cool weather field jacket which we believe will be better than the item now on issue.
- (d) As you will realize we must use up our old stocks of clothing and general stores. We do, however, appreciate the

¹The above policy applies to personal equipment and general stores only.

need for all concerned to be familiar with them at the earliest and thus try to make available some samples of all new items for viewing.

- (e) Another aspect which is receiving our attention is to produce a 'training version' of any item where we have stocks of suitable material which we want to use. An example of this is the shelter individual (training) which is identical with the S59 but is made from a different base material.

PART II — THE ITEMS NOW AND IN FUTURE

Combat Clothing

I will start at the head and work down:

(a) Headdress

- (1) Bush Hat. Stocks of green cloth hat, proven in Malaysia and Borneo, are now being built up. A new design which is extremely light is under development.
- (2) Steel Helmet and Ballistic Liner, worn as appropriate. The new ballistic liner gives almost as much protection as the outer steel shell. No special development going on here; we are keeping a close watch on the US programme which aims at 1½ lbs.
- (3) Slouch Hat, Beret etc. These remain for wear as appropriate.

(b) Neck Cloth

Is entirely satisfactory as sweat rag, towel and on issue to entitled units.

(c) Shirt/Trousers

Existing green shirt (5½-oz. material) and green trousers (9-oz material) will continue as Field Dress in Australia and Fatigues in operational areas but also will be used as Combat Dress in operations until replaced.

(d) New Combat Dress

This is now on trial and present prototype is 5-5½ ozs cotton material. Simple bush-shirt type of top garment, and loose-fitting trousers. Some of the conflicting points and desirable characteristics are:

- (1) Quick drying.
- (2) Cool and ventilated yet mosquito proof.
- (3) Light yet strong, snag and abrasion resistant.
- (4) Light yet should give some thermal protection. This is scheduled for introduction by 1971 but we hope to beat this by about 3 or 4 years.

(e) *Under Garments*

- (1) Underpants. Self-supporting, olive green, poplin now introduced but issues restricted pending usage of stocks of dyed-green cotton item.
- (2) Singlet. An Airtex, V-neck short-sleeved, green, cotton singlet was put to trial in Vietnam as possible replacement for athletic singlet or complementary to it. Has been accepted.

(f) *Socks*

We have on trial a wool/nylon sock. The nylon is on the outside (Plated) for wear, to replace the existing woollen sock. The user accepts that wool is the most comfortable and wishes to retain wool for this reason but objects to the poor wearing qualities and shrinkage after laundering. We hope the plated nylon will solve these problems. The proposed sock is of the stretch variety which will simplify size rolls.

(g) *Footwear*

There are two items here, viz:

- (1) The general-purpose boot now introduced in Vietnam and being produced in quantity. Will replace a multitude of boots and soles.
- (2) The combat patrol boot of rubber and canvas for special tasks. Currently on issue to all ranks in Papua-New Guinea and to members of AAFV on an as required basis. This is being improved in design as a WET terrain combat boot.

(h) *Protective Garments*

These comprise two, viz:

- (1) Lightweight Tropical Smock. This is really a combat raincoat for wear in static positions and at night. This plus the individual shelter forms the 'hard core' camping gear. This item of 70 denier coated nylon, overprinted with camouflage pattern, is now in production but deliveries are limited owing to shortage of raw material. Simplicity is the keynote.
- (2) Cool Weather Jacket. At present the Army is equipped with the US Field Jacket (outer only) for field wear in cool conditions. We have on trial a possible replacement garment which is much more waterproof and incorporates a detachable hood. Trials were discontinued during the summer of 1965, but have now resumed.

Personal Equipment

(a) 'Camping Gear'

This comprises the individual shelter, nylon mosquito net, light-weight sleeping bag plus pneumatic mattress which has been in service for about 2 years. We are improving this and have already put to trial modified versions to provide:

- (1) Splash-proof ends on mosquito net.
- (2) 'Velero' tape on mosquito net valance and outer mattress when rough timber bed frame is used. This saves 'tucking-in'.

(b) Personal Load-Carrying Equipment

For better or for worse the Army have adopted the US M1956 load-carrying equipment. Cannot enter into discussion on this. However, to improve it we have on trial or have accepted the following:

- (1) A larger ammunition pouch to give better general utility. This is on trial.
- (2) An individual shelter—light-weight smock carrier which the soldier can always wear and have his emergency shelter with him—accepted.
- (3) An improved and larger field pack now on trial. This is made of light-weight 6-oz core-spun duck.

(c) Personal Water Containers

- (1) The metal water canteen has been replaced by a plastic item which is now on issue to selected units.
- (2) For special tasks we have developed a collapsible 2-quart canteen and are in the process of introducing this. It is on order.
- (3) A plastic mug is to replace the enamel mug.

(d) Machete and Jungle Saw

- (1) The former is now in service in Vietnam and procurement is proceeding as fast as possible. This is a good item and most acceptable.
- (2) The machete is noisy, and, therefore, a complementary item is required for cutting green timber where noise is a factor. The proposed solution is the hand saw which has recently undergone satisfactory field trials. This will be scaled as a personal issue in lieu of the machete up to 50 per cent of strength.

General Stores

Field Coverage

Apart from the individual shelter we have:

(a) *Sub Unit Command Post Shelter*

A new item weighing 12½ pounds complete for use as a Forward CP or traffic check-point shelter. This is in production.

(b) *Tent GP — 11' x 11' Extendable*

This is the replacement tent for the 12' x 14' and 16' x 16'. It has black-out curtains if required for use as Command Post. Its use currently is restricted to operational tasks. In short time it will be given flame-retardant treatment. Tent now on issue to most regular field units.

(c) *Large Tent Field Storage/Workshop*

This is 42' x 22', and 10' high at eaves. It will replace the marquee shelter 18' span and tank shelter. It has been put to trial in both roles and is acceptable with minor modifications. It is extendable lengthwise. Specifications now completed sufficiently for initial production. Orders have been placed.

(d) *Large Tent Hospital General Purpose (30' x 20' x 6'6" at eaves)*

This is to replace the marquee for hospital and general-purpose use. Field trials completed and item accepted for introduction. Production data is now sufficiently compiled for the initial order. Is extendable lengthwise. A connecting covered way forms part of the CES when used as hospital tent. Covered ways probably will be authorized also for general purpose use such as in large headquarters.

(e) *Light-weight Tarpaulins*

Two sizes 16' x 20' and 20' x 30' which can be joined together to form any size. In production and on issue to most field units of ARA. The above is the complete range of field coverage, the key features being:

- (1) Light-weight.
- (2) Simplicity. Quick and easy to erect by few men and interchangeable parts.
- (3) Flexibility. Extendable, black-out capability, will fit into Landrover trucks, mostly man portable, all air portable.
- (4) Safety. Will be flame-proofed to large extent.

We believe that this range of field coverage is unsurpassed in the world today.

Field Office Equipment

Most of the items used in this role are made by unit labour and those in service are too heavy and generally unsuitable. All new and replacement items are designed for maximum lightness and to fit into a Landrover trailer. We believe that the introduction of these items will aid units a great deal. The items are:

(a) *Light-weight Field Table*

In two sizes 3'6" x 2' — 22 lbs
4' x 2'6" — 28 lbs

Folding legs, surface $\frac{1}{2}$ " waterproof ply, finished in green colour. Heat-resisting surface. In production and on issue to most entitled units.

(b) *Accessories for Field Table*

These comprise a lay-back (15° to vertical) reference board for the attachment of reference data such as wireless diagrams and so on which need to be displayed. This board is fitted with a pencil tray. Correspondence tray holders are also provided which allow the full table surface to be used for work which hold light-weight plastic correspondence trays with spring-loaded retaining clip to stop contents blowing out. All items have just completed a field trial and will be introduced shortly.

(c) *Light-weight Folding Stool*

A light, comfortable folding stool of canvas and aluminium tubing for general use. Has been successfully tested in the field and procurement now under way.

(d) *Light-weight Swivel Chair*

For staff officers and others working in a confined space who need to swing around to their ops maps (rear) the radio (on one side) etc. This is on trial.

(e) *Battle Message Board*

A 6-oz canvas 'board' which will take up to 10 foolscap-size folders held by clips on hooks. The 'board' may be hung up in a tent and when not in use can be rolled and stowed in $\frac{1}{4}$ -ton trailer. Has been successfully tested and is on order.

(f) *Light-weight Stationery/Despatch Box*

A light-weight collapsible 'box' containing a number of pigeon holes which can be used for storage of stationery in the field or as a despatch box. This item is now on trial.

(g) *Mapboards—Unit-Formation HQ*

A light-weight map board and frame which can be hung

from the eaves of the GP Tent. Suitable for attaching operational maps to for use at unit and task force headquarters. Item is now on trial.

Map Cases

Three items are involved here, which are:

(a) *Individual Map Holder, Small*

A clear plastic envelope about 15" x 6" open at one end. This will take a folded map sheet and fit into the leg pocket of field dress.

(b) *Individual Map Holder, Large*

As for the small item but gives larger area coverage for mounted troops. Both (a) and (b) are in production. Considered better than waterproofed maps which smear. Clear contact adhesive is probably better but is much dearer and requires extra work to stick on.

(c) *Commander's Map Case*

Required by Field Commanders and Senior Staff Officers; TF and Div level as personal item. Trials are at present in progress.

Miscellaneous Items

(a) *Light-weight Panel Marker Sets*

We have had considerable difficulty with this item in achieving a satisfactory fade rate. We have examined coated woven and non-woven fabrics none of which will stand up to the weathering effects of the tropics as well as we would like. We have just concluded tests which have given satisfactory results. These tests were arranged to give pilots of Army aircraft an opportunity to assess the markers after they had faded. We realize the urgency of this item but considerable care is required to ensure that a satisfactory standard is achieved.

(b) *Plastic Tent Peg*

A light-weight plastic tent peg in two sizes, 11 inches and 21 inches, has been developed and shows promise. They can be driven through a sealed bitumen surface without apparent ill effect. Now on trial.

(c) *Blankets GC — 25 ozs*

In order to use up vast quantities of greatcoat material we have treated this material to make it more 'fluffy' and produce a field blanket. Trials were very encouraging and we now propose to add press studs to the blankets so that a sleeping bag can be assembled for general-purpose field use.

(d) *Personal Torch*

A requirement exists for a small (pencil type) waterproof torch for individual use in the field. There is no commercial item available which will meet the desired military characteristics and therefore a special development project has been raised. We are examining the key beam principle so as to provide long-life batteries at reasonable cost.

Conclusion

You have now read about a variety of items which have been or are being developed. This list is by no means the total but gives some idea of the range of items.

It is essential that at all times an objective approach be maintained especially by the user. We must continue to achieve results with the minimum of delay and keep our sense of perspective and priority clear.

New battlefield and environmental hazards will continue to be encountered and in every instance the solution must be one of training to meet these. At a later stage we can assist by producing a garment or a store which will make the solution easier; but the need for discipline and effective training measures will always remain. Protection afforded by new items is only half the solution so do not be deluded on this score.

I have seen some countries rush through a crash programme to produce the answer to a new hazard which could have been more effectively overcome by other means.

In conclusion I trust you now have a better picture of the sponsor's task and the user's responsibility. I have seen a lot of what is going on in other countries and there is no doubt in my mind that in the field of items for use in a tropical environment we are well ahead. I believe our methods are sound and we are realistic in our approach. Let us keep it that way. □

AAJ ANNUAL PRIZES

The Board of Review has awarded the annual prize of \$60 for the best original contribution published in the Australian Army Journal during the year ended June 1966 to Major L. D. Johnson's 'Night Operations in Counter-Insurgency' (April issue).

The second prize of \$20 was shared between Lieutenant-Colonel R. S. Garland ('The Conduct of Counter-Insurgency Warfare'—January issue) and Major L. R. Way ('The Influence of Mobility in Military Operations in South-East Asia'—March issue).

How to extend communications with the 10 set

*Lieutenant G. A. Mayes,
Royal Australian Infantry*

IN every CMF camp or bivouac I have attended, particularly since becoming a platoon commander, unsatisfactory communications on the company net have almost always been a problem, sometimes reaching the stage, from my point of view, of ruining an exercise. It is of course a well-established principle that good communications are essential for control and safety.

My platoon signaller and I, as infanteers, had a reasonable working knowledge of our sets, but this knowledge did not extend beyond netting, elementary voice procedure, and the idea of 'finding the spot' for VHF operation with the standard whip aerial. We knew nothing of the use of separate wires, co-axial cables or other special aids to improve communications in jungle or open areas.

Since other CMF and perhaps to a lesser degree Regular units must have encountered similar communication problems, the aim of this paper is to explain what was for us a newly discovered external wire aerial that has now well proved itself.

A severe test of communications was the 1965 2 RQR camp in the Seaview Ranges, north Queensland, without doubt some of the worst country in the world for good signals work. The battalion net did quite well with its WS A510's. On the company nets, however, with the ANPRC 10, communications were bad, and the sets were little more than uncomfortable burdens for their operators, and quite useless tactically over any distance.

My platoon had been ordered out on a two-day, 10,000 metres patrol, and a listening watch was ordered both for warlike conditions and for safety. No more than 300 metres out, communications failed and were not re-established for some 40 hours. At one stage, on a high cliff, we did get unworkable reception, but were unable to improve it. Had we had any tactical information to pass on, or suffered a real casualty, nothing could have been done.

The WS A510s have different wire aerials that will produce results, but the smaller VHF sets have nothing for use on the move or at short halts. On a patrol such as ours it would not

have been practicable to carry the portable 49-lb RC 292 antenna, as each man was already fully loaded, and besides none was available.

Soon after assuming duty as PRONTO of the newly-formed 42 RQR, my Signals Sergeant showed me an article in an American magazine from which we extracted an idea for an aerial. It remained only as an idea for some time, and then with annual camp only three months away, a lot of spare-time work went into it. During a break in normal training on our last bivouac, two prototypes were tested. Dubbed the Vertical Half Rhombic antenna it was.

- (a) Cheap and easy to make.
- (b) Light and easy to carry.
- (c) Simple to erect and use.

The requirements were 105 feet of covered copper wire; two small egg insulators (alternatively dry wood, or even dry web straps could be used); one 400 to 700 ohm carbon resistor and two bayonets.

The aerial was then set up as in Figure 1.¹ It is necessary to know the bearing to the distant station as the aerial is directional; i.e., it transmits in the direction the wire points.² The directional effect goes out from both ends. To stop transmission from the rear, the 400 to 700 ohm carbon resistor is fitted on the end towards the distant station (Figure 3). The ordinary whip aerial is removed from the set before using the rhombic.

A radio engineer at Mackay whom we asked to look at the circuit said that not only should it work but it should perform extremely well. If one cared to relate the lengths of legs and the height above ground more exactly to frequency, the results would be even better. However the dimensions shown in the diagram were suitable for the whole frequency range of 28 to 54 m/cs.

The results of our tests can only be described as fantastic. At a range of six miles the sets were unworkable with whip aerials. With the Rhombics attached, communications were possible with handsets held out two feet from the operator's head. With one Rhombic attached and a whip substituted, voice conversation was still good. I feel that this last test should allow several rhombics to work into a control set, the latter using a normal whip.

¹Care is needed when attaching the aerial and earth, aerial to the auxiliary antenna, and earth to the body of the set. If the ground is dry, loosen and wet it around each bayonet (or use another piece of wire to join the two exposed bayonet blades along the ground). The wire must be bare where it joins the bayonets.

²There is a reasonable tolerance each side of the given bearing, but a totally wrong bearing will void the use of the aerial.

At our camp this year in the Shoalwater Bay area, all fixed sub-stations were eventually using the wire aerials, although I had ordered that the whips were to be tried and used where possible. The most distant link of the net was about 4,000 metres

VERTICAL HALF RHOMBIC ANTENNA

Figure 1.

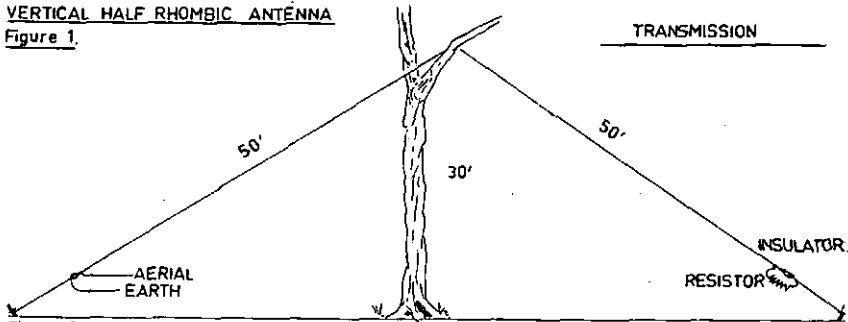


Figure 2
SET END

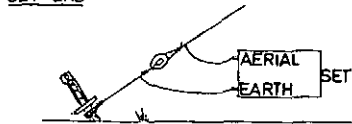
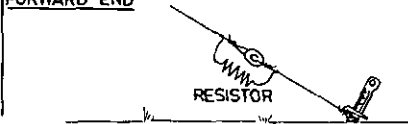


Figure 3
FORWARD END



out. Several times the wire was disconnected to test the system, and at once the operators had to get up and start walking around to get the 'right spot'. This of course fluctuates, and necessitates movement, which could affect the tactical situation.

The advantages of this type of wire aerial were many. Due possibly to the high input and output gain of the aerial (6db), transmission was clearer and quicker, and messages did not have to be offered or relayed. Battery life was extended in all cases and in most an excess of 40 hours was common. The aerials could be put up in two or three minutes and struck in half that time, and weight was down to one or two pounds in one half basic-pouch size. Transmission to the rear can be virtually cut right out if the situation requires.

Even though the aerial is directional, some good examples of lateral transmissions of up to 500 metres were recorded.

All in all we are very satisfied with its performance and, coupled with its simplicity, it has more than justified the trouble that went into its making and testing. □

Surprise and Security in the Shenandoah Valley Campaign

*Major J. S. Kendell,
Royal Australian Infantry*

PART I

Introduction

THE principles of surprise and security were prominent in the Shenandoah Valley Campaign conducted by General T. J. Jackson. Although prominent, they were not applied to the exclusion of other principles, nor were they alone responsible for any of Jackson's successes. He was successful because he gave equal consideration, although not necessarily emphasis, to every principle before committing his forces.

The pamphlet *High Command* on the principles of war states: 'They are not consciously or individually applied, but they are so absorbed into the makeup of a good commander that they are applied in proper balance to every operation.' And it adds, with a note of warning: 'Conscious over-emphasis of one principle at the expense of others may well lead to failure.'

There is no doubt that Jackson was a master in the art of mystifying, misleading and surprising his opponents. His ability to make the most of every situation in which there was an opportunity to use surprise was responsible, to a large extent, for his successes.

Definitions of the two principles to be studied would be appropriate at this juncture.

Surprise. Surprise is a most effective and powerful influence in war and its morale effect can be very great. By the use of surprise, results out of all proportion to the effort expended can be obtained, and in some operations, when other factors are unfavourable, surprise may be essential to success. The elements of surprise are secrecy, concealment, deception, originality, audacity and rapidity.

Security. A reasonable degree of security is essential in every plan to obtain freedom of action. This entails adequate protection of vital areas and in-

Major Kendell is a 1954 graduate of the Royal Military College, Duntroon. He served with 2 RAR (1954-57), as adjutant of 31 Inf Bn (1957-60), with 1 Recruit Trg Bn (1961-62), and as an Instructor at RMC (1962-64). He attended the 1965 Course at the Australian Staff College and has since been posted as CO RNSWR (Commando).

He wrote this paper as a military history thesis during his attendance at Staff College.

stallations. Security does not imply undue caution and avoidance of all risks, for bold action is essential to success in war; on the contrary, with security provided for, unexpected developments are unlikely to interfere seriously with the conduct of a vigorous offensive.¹

Aim

The aim of this paper is to answer three questions:

- (a) Is the relationships between these two principles fixed, variable, or non-existent?
- (b) What are the lessons to be learnt from Jackson's application of these two principles?
- (c) Are these lessons valid in a modern South-East Asian setting?

Background

Battles have been selected in which surprise and security were the dominant principles, irrespective of which side gained by their superior application. Before each battle is studied in detail it is essential that the reader should have a general outline of the situation in America as it was in 1861.

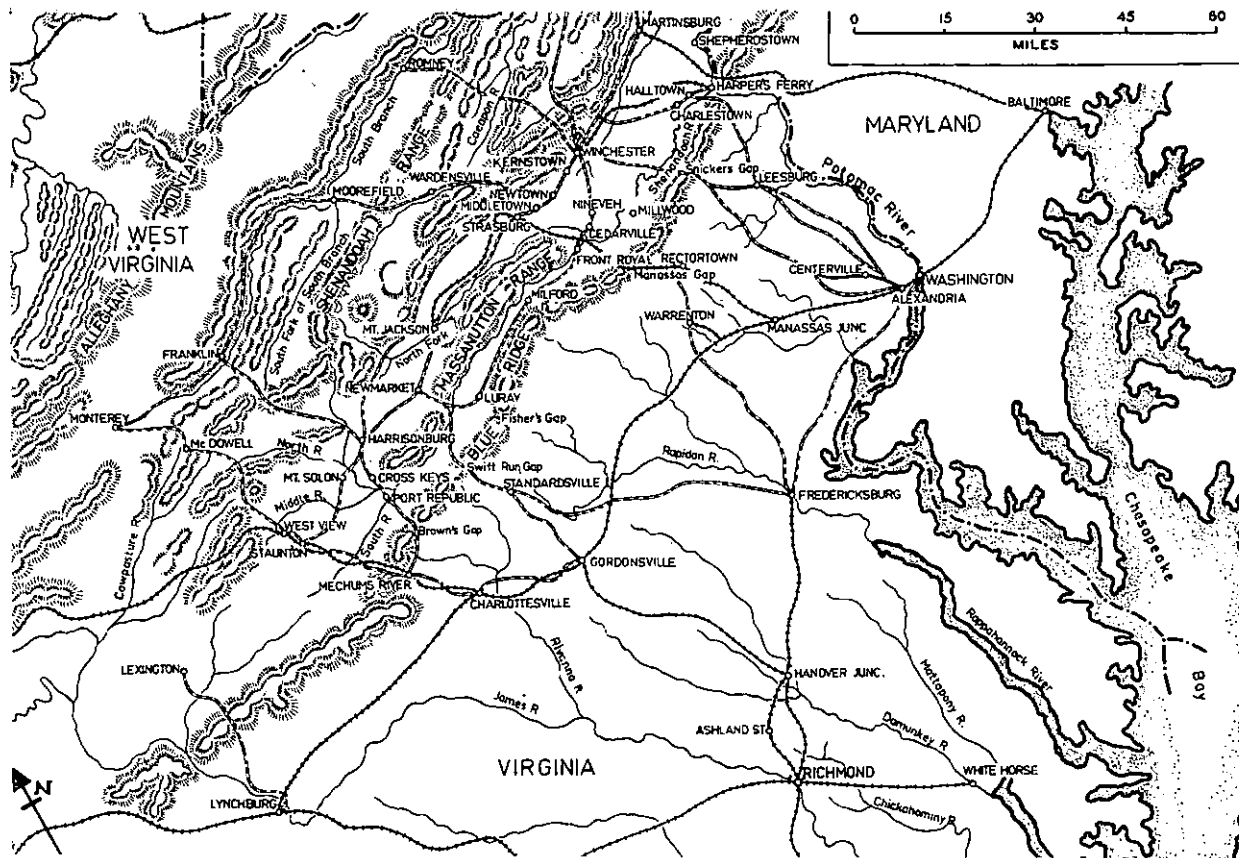
The Southern, or Confederate, States were, at the outset of the war, at a marked disadvantage. The Northern or Union States had a superiority in material, resources, business capacity and in mechanized skill. Its white population was about four times that of the South. The North was largely a manufacturing community, while the South, depending on the North for many of the necessities of life was itself almost entirely agricultural. The North had almost complete control of the military and naval resources of the country.

The land forces of both sides before the war were negligible. In this respect, they were equal in their unpreparedness. The North, however, had at its disposal the entire United States Army, but its total strength was 16,000 all ranks. Of this force only 3,000 could be spared at the outset from the forts on the Indian Frontier. Moreover, of the 1,200 West Point officers available for service in 1861, one-fourth were Southerners, and these, almost to a man, resigned their commissions and joined the Confederate cause.²

Both North and South virtually had to create a new army from raw material: first from volunteers, and later from conscripts. The Southerner was an out-of-doors man, a natural horseman, a good shot, and the possessor of a sportsman's skill in scouting. The Northerner, for the most part, was a townsman with little rural knowledge or affinity. To him, service in the

¹The Pentropic Division in Battle, Part I, p. 61.

²G. F. R Henderson, *Stonewall Jackson*, Vol I, p. 104.



army, with all its discomforts, was most unattractive and only to be accepted as a national duty.³

If both communities initially lacked military organization and discipline, both had their full share of courage, energy and determination, and each was alike inspired by a whole-hearted belief in the righteousness of its own cause. The North fought for national union and national existence, while the South fought for States' rights and self-determination. The fact that these opposed political communities were drawn into war by the ethical issue of slavery, only served to accentuate the bitterness of feeling. But for both, the constitutional question was, throughout the war, the real issue. Any compromise on this issue was impossible.

PART II — BATTLES

This treatment will include strategic as well as tactical application of the principles. In each battle only those aspects of the opposing forces in which there is a significant discrepancy and which had an effect on the outcome, will be discussed. These will be limited to:

- (a) The information available to opposing commanders before the battle.
- (b) The aims of the commanders.
- (c) The outline and results of the battle.
- (d) Relative strengths.
- (e) Conclusions drawn from the battle.
- (f) The lessons revealed by the study.

The Battle of Kernstown

Background

The Army of the Potomac under General Banks was being moved from Shenandoah Valley to press the Confederate withdrawal towards their capital, Richmond. Only General Shields' division was to remain in the valley. This was considered sufficient to protect Harper's Ferry, the Baltimore-Ohio Railway, and the Chesapeake Canal. Shields, considering there was little chance of interference from Jackson's force of no more than 4,000, deployed his division of about 9,000 in the Winchester-Kernstown area.

Information

Ashby's cavalry, part of Jackson's Army of the Valley, was keeping the enemy under observation, and at the same time providing security for the Confederate force 30 miles south. The cavalry observed the withdrawal of some of Bank's army and reported that most of Shields' division was leaving the Valley.

³Stonewall Jackson, Vol. I, p.

This information was incorrect, although confirmed by a 'reliable source'⁴ in Winchester. However, it was on this information that Jackson decided to attack, estimating the enemy to be about 2,000 infantry plus some cavalry. In fact, Shields' force, two-thirds of which was concealed north of Winchester, totalled over 8,000 infantry supported by cavalry and guns. This disparity is important, because up to the time of the assault Jackson believed he had the superior force. As it turned out, he very nearly won the tactical battle, and certainly achieved his strategical aim.

Aim of the Battle

The operational instruction given Jackson by his superior General J. Johnston, was to keep the enemy in the valley and thus prevent a concentration against Richmond. Jackson was also aware, like Johnston, that any local success in the Winchester-Harper's Ferry area would be seen as a threat to Washington, the Union capital. This would undoubtedly cause the withdrawal of troops from other tasks to secure it.

Plan of Attack

Jackson decided to use deception and surprise. His plan provided for one-third of his force and half the cavalry, to hold the enemy front on the main axis while two-thirds and the remaining cavalry moved by way of a wooded ridge to the enemy's right flank. The cavalry were to provide flank protection initially, and later were to move further to the rear to cut the enemy lines of withdrawal. Jackson's reasoning was as follows:

An attack upon the Federal left flank would have to be pushed across the open fields and decided by fair fighting, gun and rifle against gun and rifle, and on that flank the enemy was prepared for battle. If he could seize the wooded ridge on his left the initiative would be his. His opponent would be compelled to conform to his movements. Instead of receiving attack where he stood, the Federal general would have to change front to meet it, to execute movements he possibly had not foreseen, to fight on ground with which he was unfamiliar, and instead of carrying out a plan he had previously thought out, he would have to conceive one on the spur of the moment and issue orders during the battle.⁵

These were the advantages Jackson considered would be his by attacking from an unexpected direction.

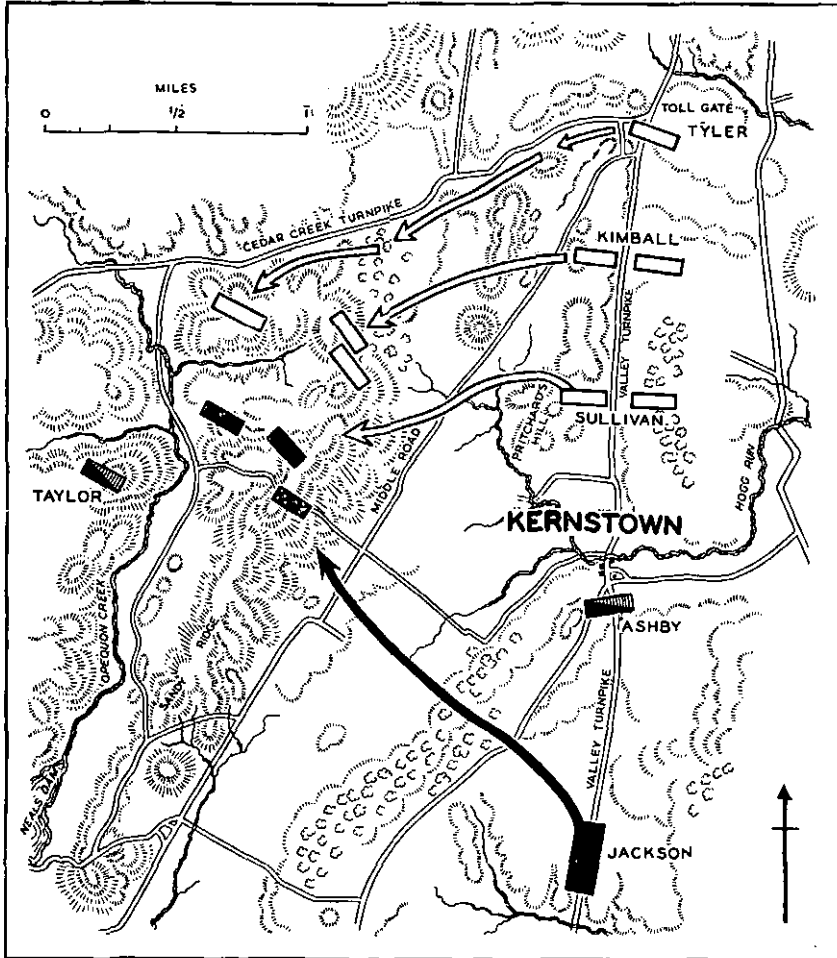
Outline of the Battle

Jackson moved his force to the ridge as planned, but when he was about to attack the enemy flank, he instead was attacked by a brigade concealed in the timber. This brigade had been moved secretly from its reserve position on the main axis when Jackson's force was observed moving to the ridge. For more than an hour the outcome was doubtful, but when the enemy commander, General Kimball, became aware that this was in fact

⁴Stonewall Jackson, Vol. I, p. 104.

⁵Stonewall Jackson, Vol. I, p. 239.

the main attack, he quickly committed his reserves of 3,000 infantry and some guns. (Kimball had assumed command when Shields was wounded the previous day.) This increased the discrepancy between the opposing infantry on the ridge to 6,000 against 2,000; and Jackson was forced to withdraw. However, the enemy had been roughly handled and no immediate attempt was made to follow up. Jackson withdrew south down the valley.



Results of the Battle

Casualties on both sides were about 600. The Confederates, however, lost another 250 as prisoners. The tactical gains and

losses of the battle are minor compared to the strategic and political effects of Jackson's actions. At divisional level Shields believed Jackson would not have tried such a bold attack unless he was expecting reinforcements. He therefore concentrated his force, including covering troops from his flanks, and requested an extra brigade from one of Banks' two remaining divisions. Banks, at his level, detached a complete division to reinforce Shields. The President, believing that Washington was threatened, made several drastic moves to reinforce its defences. McLellan the Federal General, on the eve of advancing on Richmond, had his force reduced from 150,000 to 103,000.⁶ The 47,000 men taken from McLellan were committed as additional to the defences of the capital and its approaches. By depriving McLellan of one-third of his force, Lincoln and his advisers made his task much less assured of success. 'Such was the effect of a blow struck at the right place and the right time, though struck by no more than 3,000 bayonets.'⁷

Conclusions

There is no doubt that the battle was well fought, and that it had an effect on the enemy out of all proportion to the effort expended. Tactically, however, it was a defeat, and no matter how brilliant and bold was Jackson's plan, it was based on incorrect information. Moreover it was compromised during its execution. In his defence, it is doubtful if Jackson could have been expected to know the enemy strength more accurately. He had used every means in his power to get accurate intelligence. His cavalry had penetrated the enemy lines around Winchester and their information was confirmed by an independent and usually reliable source. He should, however, have taken greater precautions in his flanking movement.

On the other hand, Shields, who disposed his forces for battle before becoming a casualty, knew something of his opponent, and anticipating he would be eager to attack, had ordered the greater part of his division to remain concealed. His security was good, and observation posts on the high ground on the right of the axis reported Jackson's force moving to the ridge. A reserve brigade was immediately ordered to move, under cover, to counter this threat. Having a shorter distance to go, it arrived first, and had time to deploy.

Kimball could have put a larger force on to the ridge to intercept Jackson's outflanking column, but like Shields and later Banks, he was unable to believe that Jackson was unsupported. He expected that the flank attack would be followed up

⁶Stonewall Jackson, Vol. I, p. 249.

⁷Stonewall Jackson, Vol I, p. 250.

by one from front in far greater strength. 'He could hardly credit that an inferior force would deliberately move off to a flank, leaving its line of retreat to be guarded by a few squadrons weakly supported by infantry; and the audacity of the assailant had the usual effect of deceiving the defender.'⁸

There is every indication that Jackson would have made some offensive move against Shields even had he known his complete strength and dispositions.

Major Lessons

Both Jackson and Shields achieved surprise, and up to a point, both were successful. The main lessons here are:

- (a) To achieve surprise the plan must be based on sound intelligence.
- (b) Boldness and audacity are essential in the execution of a plan based on the achievement of surprise for its success.
- (c) Security of the intention, and pre-H hour positioning of troops and supporting arms are essential.

If the intention is known, in time for the enemy to counter it, then the attacker places himself at a far greater disadvantage than if he had adopted a more conventional approach.

The Battles of Front Royal and Winchester

Background

After the battle of Kernstown the Federal forces under Banks moved cautiously south towards Staunton, the Confederate supply base. Although prompted and prodded by his superiors to destroy Jackson's force, and finally to take Staunton, Banks spent a month moving only 40 miles. His caution allowed Jackson time to build up his force to 6,000 and later to manoeuvre around Banks by way of Swift Run Gap to join forces with General E. Johnston at Staunton. A number of factors caused Banks' withdrawal to Strasburg before he seriously threatened either objective.

On the national scene, McLellan, whose objective it was to capture Richmond, was held up at Yorktown, and desperately needed a counter-stroke on another approach to relieve the pressure on his own. Lincoln had depended on Banks to defeat Jackson in the valley and so release his and other forces on his flanks to the offensive against Richmond. In addition to Bank's 20,000, there were 20,000 under Fremont in the next valley to the west. McLellan urgently needed these as well as the 30,000 under McDowell, already en route to Fredericksburg, to threaten Richmond from the north.

⁸Stonewall Jackson, p. 251.

By a series of difficult and rapid marches, east out of the valley towards Richmond, then south and west to Staunton, then west again to the village of McDowell, Jackson achieved the following results:

- (a) McDowell was ordered to halt short of Fredericksburg to stop Jackson going to the defence of Richmond.
- (b) The Federal forces were defeated at the village of McDowell and thus prevented from joining forces with Banks in the valley.
- (c) Shields' division was transferred from Banks to McDowell when it was thought that Jackson was about to reinforce Johnston at Richmond.
- (d) Banks' reduced force was ordered back to Strasburg.

The Confederate cause was not going well in theatres other than the valley, and General Lee, the Confederate Commander-in-Chief, ordered Jackson again to threaten Washington. Lee gave no specific orders about how or where this should be done, but only that he wanted it done as quickly as possible. He is quoted as writing: 'Whatever move you make against Banks, do it speedily. If successful, drive him back towards the Potomac and create the impression, as far as possible, that you design threatening that line.'⁹ For this task the forces of General Ewell (7,500) and General E. Johnston (2,500) were placed under Jackson's command.

Information

Jackson was aware of Banks' movements because his cavalry were superior to the enemy cavalry. They were most successful in gaining observation over the enemy, but, at the same time, prevented enemy observation of Jackson's forces.

Banks on the other hand had received little intelligence and apparently made little effort to gain it. He relied on information provided by civilians and deserters, often of doubtful reliability. Jackson was aware of this and used it in his deception plan. He concentrated the strength of his force on one approach west of the mountains in front of Banks' strong defences at Strasburg. Then, under cover of darkness, he moved it to another approach, concentrating against the weakest part of Banks' defence.

The Confederate forces under Jackson had been formed into two divisions, each with its own cavalry and guns. Jackson commanded one through his senior brigade commander, and General Ewell, subordinate to Jackson, the other. Their combined strength was about 17,000. Banks' force of 9,500 (so reduced

⁹Stonewall Jackson, Vol I, p. 306.

by the transfer of Shields' division of 11,000) was based on strong defensive works at Strasburg with only a weak outpost at Front Royal and a security detachment at Winchester. Although the discrepancy would appear to place Jackson in such a position that success was assured, this is not entirely so. Had Jackson attacked Strasburg from the expected direction, against strong defences and on a confined approach, there is every chance that he would have been defeated. Therefore Banks, who expected him to do just that, was not as apprehensive as he might have been.

Jackson was determined to create the situation requested by Lee. He had no intention of a slow advance up the Valley Turnpike against Banks' prepared positions. His aim was to avoid the enemy strength, cut his lines of communication and his withdrawal route east through Front Royal, and force him north over the Potomac.

Jackson's plan was based on the deception that he would make a frontal assault on Strasburg. His initial manoeuvres south of Strasburg were designed to confirm Banks' opinion of his intentions on that approach. Once he was reasonably sure that the deception was working, he planned a rapid move across the Massanutton Range, a concentration of all his forces in the Front Royal area, and then, dependent on Banks' reaction, a cutting of his withdrawal routes. The success of the plan depended greatly on his secrecy, and in not allowing Banks time to change his dispositions or receive reinforcements. These reinforcements could have come from Fremont's force west of the Shenandoah Range, McDowell's force to the east at Fredericksburg or Union forces north of the Potomac. The plan then, relied on speed and security for its success.

Outline and Results of the Battles

At Front Royal the force of 1,000 infantry and only two guns was commanded by Colonel Kenly. The cavalry he had had on screen duties had been withdrawn by Banks a few days previously. This allowed Jackson complete surprise at very close range. The move across the mountains and the concentration of Jackson's force in front of Front Royal was completed as planned. 'The day was intensely hot, and in the valley to the south there was no sign of life. Suddenly, and without the least warning, a long line of skirmishers broke forward from the forest. The sound of Confederate bugles was succeeded by the crash of musketry.'¹⁰

Kenly barely had time to form up before the Confederates reached his defences. By a very gallant stand he was able to

¹⁰Stonewall Jackson, Vol I, p. 317.

destroy most of his stores and partially destroy the bridges. However, he was surprised again as he withdrew towards Winchester, and his force was decimated by a bold cavalry action.

Within an hour of the first Confederate assault, Front Royal was isolated and Jackson had forces following up the withdrawing enemy. Telegraph lines were cut and all roads blocked. Over 600 infantry and one gun were captured. The rapid concentration against the weakness in Banks' defence had been a complete success.

Jackson's surprise had been effected through careful planning in which painstaking attention to detail had played a conspicuous part. He had gone to great lengths to inform himself of all details of the terrain over which he intended to operate. He had paid great attention to timings, and he had gone to considerable pains to co-ordinate the movements which concentrated his whole force at Front Royal prior to the assault. He had done everything he could to deceive his opponent and to ensure the secrecy of his march.¹¹

Banks reacted slowly to the news of the action at Front Royal. His efforts to confirm the reports were only half-hearted; in fact he still believed that Jackson was somewhat to his south, and that an independent raid had accounted for Front Royal. He did not want to believe any information which conflicted with his defensive plan. Finally, when convinced that Jackson was in strength at Front Royal, he ordered a withdrawal to Winchester where he decided to stand and fight. His forces moved rapidly, leaving behind some heavy stores and wagons, and narrowly missed being cut off by Jackson. In this respect, they were indeed lucky. Jackson's force was tired out. It had marched 80 miles in four days, fought an action, and now was in need of rest.

In outline, Banks withdrew with relatively few losses to Winchester. Confederate fatigue, pillaging by the cavalry,¹² and skilful Union rearguard actions all combined to make Jackson's follow-up less effective.

The Battle of Winchester was a foregone conclusion, with the defenders (7,500) having no great advantage. Jackson with his force of 16,000 rapidly overran the defenders by a series of flanking attacks, followed by a decisive frontal assault which broke through and ended all organized resistance south of Winchester. The position now called for a rapid and vigorous pur-

¹¹E. G. Keogh, *Shenandoah 1861-62*, p. 98.

¹²Lieutenant-Colonel Henderson, in *Stonewall Jackson* has added as a footnote an extract from 'Destruction and Reconstruction', which is not given as an excuse, but as a probable reason for the pillaging by cavalry, especially of horses. 'It is only fair to add, however, that the Confederate troopers had to supply their own horses, receiving no compensation for their loss by disease or capture. This in some measure excuses their anxiety to loot as many chargers as they could lay their hands on.'

suit by all the cavalry under Jackson's command. Again fatigue of horses and cavalry reduced the cavalry available for this task to less than a hundred. Jackson tried to follow up with infantry but they were more fatigued than the horses, and so Banks was allowed a relatively uninterrupted withdrawal to the Potomac. Jackson wrote: 'Never have I seen an opportunity when it was in the power of the cavalry to reap a richer harvest of the fruits of victory. Had the cavalry played its part in this pursuit as it did after Front Royal, only a small part of Banks' army would have made its escape to the Potomac.'¹³ Banks withdrew through Martinsburg to Williamsport.

The Federal forces were very fortunate in getting away with such losses as they did. As it was, their losses included 2,000 men, hundreds of wagons, the regimental transport of the cavalry, nearly 800 sick and a vast quantity of stores, arms and ammunition. Jackson had achieved his mission. Banks and the remnants of his force were north of the Potomac and Jackson's forces were camped on its southern shores.

The defeat of Banks in the Valley at a time when the Unionists were counting only the days till the fall of Richmond had great strategic results. It had paralysed McLellan's plan of campaign and saved Richmond. It alarmed President Lincoln to the extent that McDowell was withdrawn for the third time from helping McLellan. It contributed to the later withdrawal of McLellan from his attempt to capture Richmond.

The battles of Front Royal and Winchester were probably the highlight of the Valley campaign. Their combined effect on not only the Federal soldiers but on the civilian morale was greater than even Lee had hoped for. One day Banks was confidently waiting behind his defences and the next he was frantically executing a withdrawal to prevent being cut off. The effects on the Northern civilians, especially those in Washington, were dramatic. The Washington papers which had been daily forecasting the fall of the Confederate capital, now spread despair and despondency about the safety of their own.

Complete surprise was achieved at Front Royal. This was the result of deception, security and thorough planning. It is reasonable to assume that with the superiority of his numbers Jackson, with less effort, could have defeated Banks and forced him to withdraw. Jackson, however, was determined to make the maximum effort and therefore to gain the maximum advantage. His victory at Front Royal was no coincidence; his plans had been carefully thought out. Kenly's patrols had failed to discover his advance in the early morning, because about three miles south of the Federal outpost line, 'he had turned to the right off the

¹³Stonewall Jackson, Vol. I, p. 342.

road and, plunging into the woods, had approached Front Royal by a circuitous track, so rough that the enemy had thought it hardly worth while to watch it.¹⁴ Ewell's cavalry, on the other hand, was sent through the timber on the left of the roads, its actions to be co-ordinated with the time of the infantry attack.

Ashby, whose cavalry had been in front of Banks on the other side of the mountain, had moved the majority of his force to join Jackson by daybreak by a rough track across the mountains. This force had been directed to cut the communications between Front Royal and Strasburg. Another force, part of the cavalry under Jackson, was ordered to burn the railway bridges to the east of Front Royal, while yet another was sent to intercept possible reinforcements from the east through Manassas Gap.

Had Kenly retreated on Strasburg, he would have found Ashby blocking his route. Had reinforcements been despatched from Strasburg they would have been dealt with by Ashby before they could reach Kenly. Had the Federals attempted to escape by Manassas Gap they would have found cavalry across their path. Meanwhile another party of cavalry had cut the telegraph between Front Royal and Washington. Within an hour of his picquets being surprised, Kenly was completely isolated.¹⁵

The above extract indicates that Jackson took every precaution to keep his intentions secure and, once battle was joined, to ensure that his immediate task was secure from outside interference.

The Battle of Winchester is not in itself outstanding, but it was Jackson's ability quickly to close with the enemy, thus preventing time for preparation of his defences, which is worthy of comment. Jackson's force, including the cavalry and Ewell's division, had marched and fought almost non stop for six days. Jackson knew the capabilities of his men and pushed them and their officers, while they were still within their limit, and while the objectives still justified the maximum effort. That Jackson was able to concentrate both his and Ewell's divisions against Banks in so short a time had a great moral effect on the Federals. Because of his ability to surprise his enemy at the most unexpected places and times, Jackson's reputation spread rapidly. Forces sent against him approached with caution, suffered in morale and were prone to desertions.

Jackson was a firm believer in security, not only of his plans, but of his force. As he advanced north from Front Royal to the Potomac, he employed elements of his infantry and cavalry in flanking security duties on lateral approaches to his lines of communication. This gave him freedom of movement in the operational area and, at the same time, early warning of any threat to his flanks and rear.

¹⁴Stonewall Jackson, Vol I, p. 321.

¹⁵Stonewall Jackson, Vol I, p. 321.

The battles of Front Royal and Winchester bring out again the lessons resulting from the battle of Kernstown and, in addition, highlight two more.

- (a) To exploit rapidly and vigorously the advantages gained by surprise, a commander needs a mobile reserve, correctly constituted, and relatively free of immediate resupply problems.
- (b) Irrespective of the superiority of his force, a commander should make every effort to deceive and surprise the enemy to achieve maximum destruction. The disposition of his forces after the battle should be such that they can continue offensive action if the opportunity presents itself.

Withdrawal from the Potomac to Port Republic

After the battle of Winchester, Jackson's force of 16,000 followed up to Harper's Ferry where a Federal force of 7,000 under General Saxton defended the bridge across the Potomac. The Federal commander, fearing an outflanking move to take the bridge from the northern bank, withdrew beyond it, leaving the valley free of Federal troops.

At this time the forces diverted against Jackson were closing in on his flanks. The opposing forces were:

North	— Banks	7,000
	— Saxton	7,000
West	— Fremont	15,000
East	— Shields	10,000
	— McDowell	20,000

The disparity now was about 60,000 to 22,000.¹⁶

Information

Jackson was always well informed of the enemy's movements, and on this occasion estimated that he would be able to escape the enemy net without having to abandon any troops or equipment in doing so. He also intended taking with him all the captured stores and prisoners. 'Jackson was not the man to be panicked into abandoning the valuable stores, still less leave Winder (his covering troops commander) to his fate. Calmly putting himself in the enemy's place, he saw their difficulties as well as their advantages and, balancing one against the other, he came to the conclusion that he would have just enough time to extricate his army and his stores.'¹⁷

¹⁶The basic reference, *Stonewall Jackson*, is not clear on how Jackson's force of 17,000 infantry before Front Royal had increased to 22,000 all arms. It is assumed that this figure includes gunners, cavalry, HQs and some reinforcements.

¹⁷E. G. Keogh, *Shenandoah*, p. 112.

On the other hand, Shields and Fremont were advancing against a vigorous and victorious army of unknown strength, whose exact location was the subject of conflicting reports. This led to a cautious and probing advance.

Jackson was able to move his stores, wagons and captured equipment immediately he decided to withdraw. By leaving a strong covering force in front of Saxton at Harper's Ferry and sending out all but necessary operational stores early, he was able to move his infantry and cavalry quickly south on a route free of administrative traffic. He continued south after passing through Strasburg and took up a defensive position based on Cross Keys and Port Republic.

The battles of Cross Keys and Port Republic, like those of Romney and McDowell village, were not noted for the prominence of the principles of surprise and security, and therefore will not be treated further. It will suffice to say that Jackson defeated the Federal forces before they could concentrate against him. Ewell defeated Fremont at Cross Keys and then combined with Jackson to defeat Shields' force at Port Republic.

Conclusions

In the period of a fortnight, from the concentration against Front Royal to the withdrawal south through Strasburg, the 'Army of the Valley had marched 170 miles, had routed a force of 12,500 men,¹⁸ had threatened the North with invasion, had drawn off McDowell from Fredericksburg, and seized the hospitals and supply depots at Front Royal, Winchester and Martinsburg, and finally, although surrounded on three sides by 60,000 men, had brought off a huge convoy without losing a single wagon.'¹⁹ Their total losses for the two weeks were 613 all ranks.

The most important single factor contributing to Jackson's successful withdrawal was the security within which he was able to operate. At every move Jackson considered the probable enemy reaction and took steps to counter it. As he advanced from Harrisonburg towards Banks at Strasburg, his engineers made impassable all mountain access roads by which Fremont, in the next valley to the west, could threaten his lines of communication. When he advanced against Banks at Winchester he left forces at Front Royal and cavalry at Manassas Gap to protect his right flank. On the left, Ashby at Wardensville kept Fremont under observation and protected that flank. After Winchester, Jackson detached a brigade to watch his right flank and hold Snicker's Gap against any threat from the east. His cavalry consistently kept contact with the enemy and, with

¹⁸This figure of 12,500 is the total infantry of Banks' and Saxton's forces.

¹⁹*Stonewall Jackson*, Vol I, p. 353.

the unfortunate exception of the pursuit after Winchester, they did it extremely well. It is for this reason that Jackson was better able to surprise his opponents. After Kernstown, he did not once suffer a tactical or strategical surprise during the Valley Campaign.

Major Lessons

Jackson's withdrawal brings out three more lessons. Their application is particularly important when a commander is faced with a situation in which unexpected enemy interference could be disastrous.

- (a) Security is essential, first to achieve surprise, and second to maintain a freedom of action to exploit any advantages gained.
- (b) Forces employed on security measures, if properly trained and briefed, not only provide freedom of action, but can be a valuable source of information. These measures include sentries, patrols—mounted or on foot—covering troops, screens, flank and rear guards and observation posts.
- (c) A commander may take greater risks when his security is assured and when good intelligence reduces the multitude of imponderables. These then become calculated risks in which the commander has carefully estimated the effect of their failure.

Jackson's Opponents

Jackson proved himself one of the outstanding soldiers of the Civil War. However, it is not part of the aim of this paper to extol his military genius but simply to study his application of the principles of surprise and security. Nevertheless, his genius quickly becomes apparent when his successes against capable and intelligent opponents are considered. Of all his opponents in the Valley, only Banks was perhaps of inferior training and military ability. (Banks' appointment as a general was a political one.) Shields, Fremont and McDowell had been West Point trained, and had seen service in Mexico, and their efforts against an adversary of equal capacity probably would have contained a number of successes as well as failures. Against Jackson, however, their errors were usually fatal; his keen perception detected the opening and his highly trained mind extracted from it every possible advantage.

Jackson's successes are due to some extent to the brilliance of both J. Johnson and to the Confederate Command-in-Chief, Lee. Separately these three were great soldiers; the combination of their skills in the direction and execution of the Valley campaign proved overwhelming.

PART III — CONCLUSIONS

The aim of this paper was to provide answers to three questions. They were:

- (a) Is the relationship between the principles of surprise and security, fixed, variable or non-existent?
- (b) What are the lessons to be learnt from Jackson's application of these two principles?
- (c) Are these lessons valid in a modern South-East Asian setting?

Relationship

The study to this point indicates a strong relationship between the two principles, and therefore the third possibility—that is, of the relationship being non-existent—can be discarded.

At Kernstown Jackson was eager to attack before the Federals could get reinforcements, and, as he thought at the time, to press Shields' withdrawal. On this occasion he planned on surprising the defenders in such strength as to destroy many of them, and with the use of cavalry in front, on the flanks and in the rear, to turn the withdrawal of the survivors into a rout. Instead, however, he was surprised and in what would normally have been a disastrous position, that is, in the forming-up place. His forces were divided and at such a distance that immediate support between them was impossible. It is remarkable that Jackson's forces were not defeated and the withdrawal of his survivors turned into a rout. The Valley campaign could well have ended here. That it did not was due solely to the difference in character of opposing commanders and the lack of information on both sides.

Jackson's plan was a bold one indeed, and its audacious execution had the desired effect on Kimball. But it failed, and for one reason only—poor security. Observation posts on the high ground in the enemy position saw Jackson's move to the wooded ridge in sufficient time to allow Kimball to deploy a brigade to counter it. Jackson did not make this mistake again during the campaign.

Jackson's plan relied heavily on the achievement of surprise for its success, yet his security measures were not given the importance they warranted and his intention became known to the enemy. This then indicates that the greater the reliance of the plan on surprise to achieve success, the greater is the importance of security.

Before the Front Royal action, Jackson took great pains to ensure the surprise of Kenly. His plan was based on deception and rapid concentration at the weakest point in Banks' defensive

layout. The security of his moves, of the Front Royal battle area and the subsequent area of operations from Strasburg to the Potomac were given the highest priority. His plan here was based on surprise also, but this time the security measures were more than adequate. This success would indicate again the strong relationship between the two principles.

There is no doubt that both Fremont and Shields were surprised to find that Jackson had passed through Strasburg by the time they joined forces. In this instance, however, Jackson's plan did not only try to deceive the enemy as to his actions or location, but to deny them all information. On the other hand he relied on his security measures to provide accurate information on enemy locations, strengths, and directions of advance. On this information he took a calculated risk, deciding he had time not only to withdraw his forces from the closing trap, but all the captured equipment and prisoners as well. In this situation the success of his plan depended entirely on keeping the enemy in the dark about his actions and intentions. The success he achieved was remarkable, but then the security efforts were in proportion to the importance of the operation.

The indications are that there is a definite relationship between the importance of surprise in a plan, and in the security measures needed to ensure its success (as much as any plan can be assured of success in war). This relationship is not a mathematical one, and it cannot be expressed as an exact ratio of one to the other. There is, however, sufficient evidence above to conclude that:

- (a) A plan which relies heavily on the achievement of surprise for its success must also place the same degree of emphasis on security, in all its aspects.
- (b) A vigorous commander, whose security has been satisfied by all reasonable precautions, has the opportunity of achieving surprise and its resultant advantages, and at the same time decreasing the likelihood of his own force being surprised.

Lessons

The following lessons, restricted to those which deal with surprise and security, have been revealed by the study.

- (a) To achieve surprise, the plan must be based on sound intelligence.
- (b) Boldness and audacity are essential in the execution of a plan based on the achievement of surprise for its success.
- (c) Security of the intention and of pre-H hour positioning of troops and supporting arms are essential.

- (d) To exploit rapidly and vigorously the advantages gained by surprise, a commander needs a mobile force, correctly constituted and relatively free of immediate resupply problems.
- (e) Irrespective of the superiority of his force, a commander should make every effort to deceive and surprise the enemy to achieve maximum destruction.
- (f) Security is essential, first to achieve surprise, and second to maintain a freedom of action to exploit every advantage gained.
- (g) Forces employed on security measures, if properly trained and briefed, not only provide freedom of action, but can be a valuable source of information.
- (h) A commander can take greater risks when his security is satisfied and when good intelligence reduces the multitude of imponderables.

Validity of Lessons in South-East Asia today

It is difficult in counter-insurgency operations in South-East Asia to achieve surprise. The insurgents have not only built up a comprehensive intelligence network in the towns and villages, but have penetrated government departments and planning agencies, even at the national level. For this reason the insurgents are usually aware of government plans long before they are implemented. It is for this reason also that the ambush has been one of the most successful of the insurgents' offensive tactics.

Security is one of the pre-requisites of surprise, yet it is virtually impossible to achieve under the existing conditions. Operations are planned by the National, Provincial and District Security Councils, and at each level this involves many agencies. Most of these agencies are involved in pre-D day planning and movement of stores and men. For example, at District level, the following would be on a 'need to know' basis several days, or on occasions, weeks before the launching of an operation:

- (a) District administrator.
- (b) Police chief.
- (c) Civil Guard commander.
- (d) Indigenous regular force commander
- (e) Allied force commander.
- (f) District intelligence chief.
- (g) Development Teams. These teams have sections under the control of the Departments of Agriculture, Health and Information, as well as the interior.

There is little chance of preserving security with this multitude of individuals and departments, being directly and indirectly, involved in operational planning.

The difficulties outlined above will continue to exist until government counter-intelligence is built up and there is a change in national morale. The employment of deception and a suitable cover plan could, however, have a beneficial effect on security. Rather than try to starve the insurgents of information, the authorities could release an abundance of it, some conflicting and some confirming. In other words, saturate the net with both true and false intelligence. This, like any other cover plan, would need careful planning and tight control. An operation could be jointly planned, as usual, but with its location and time changed to conform to the cover plan. The forces assembled, however, must be suitable for the actual location when revealed. It is also essential to collect intelligence on the actual location, and this might need to be co-ordinated with yet another deception plan.

In summary, every effort must be made to deceive the enemy as to the time and place of an operation. No enemy can deploy sufficient troops or make plans to cover all eventualities. When the operation is launched it should be done with speed and determination so that the enemy has no time to regain his balance.

Execution of Operations and Security of Manoeuvre

It should be the aim of the government to employ indigenous forces in operations involving civilians, such as population and food control, and employ Allied forces in offensive operations in insurgent base areas. Suggested aids to security in these areas are:

- (a) Patrol in from the operational base in platoon groups, concentrating into companies when basing up.
- (b) Harbours drills should be amended to comply with the following:
 - (i) Harbour at any time between two and one and a half hours before last light in normal formation, employing normal security.
 - (ii) Send out up to three reconnaissance patrols²⁰ to find a suitable harbouring location for occupation after dark. The patrols return not longer than one hour later, the commander decides on the new location, and the force moves to it.
 - (iii) The approach should include at least 30 minutes movement after last light. Once in the new location there

²⁰Depending on the size of the unit involved, these patrols would have guides from sub-units down to platoons. A platoon reconnaissance patrol would include section guides.

is no noise or movement, only the relief of sentries within the perimeter. There is no change in the first light stand-to or clearing patrol procedures.

- (c) Use air resupply only when no economical alternative exists, and then always make at least two dummy drops in other likely areas.
- (d) Use helicopters for movement of reserves once the Viet Cong have been located in sufficient strength to warrant their use.
- (e) Resist the temptation to set up a central base outside the operational base which will need troops and defensive stores to secure it. Instead have temporary bases which are moved frequently, never allowing time for the enemy to concentrate sufficient strength to destroy them.

Operations are limited in duration only by resupply restrictions. Air resupply will often compromise a force's intention as well as its location. Although a force might not be seen by the enemy, successive resupply drops could indicate its direction of movement, its size and composition. All these indications lessen our chances of achieving surprise and increase the enemy's ability to surprise us. To avoid this, a force must either be resupplied by vehicle, porter, or carry with it, its total requirements for the duration of the operation.

Vehicle resupply, unless on a one time-one route basis has been proved unsound. Porter resupply is uneconomical in manpower and limited in carrying duration. To reduce the reliance of infantry on air and porter resupply when operating in a 'no ground vehicle' area, the following suggestions are made. Because of the multitude of possible counter-insurgency tasks, these are general suggestions only.

- (a) In the infantry battalion,²¹ one platoon in each rifle company becomes a fighting porter platoon, and supports the remainder of that company. Its GPMG teams remain with the platoon as the basis of its escort and fight with their sections when the porter commitment ceases.
- (b) Within each remaining rifle platoon, each section converts three of its riflemen to fighting porters. One carries rations and the other two ammunition.
- (c) The support section carries only one anti-tank weapon, the Carl Gustav, but doubles its normal ammunition.
- (d) The Mortar Platoon reduces its mortars to one per section; the remaining mortar numbers become spares and also escorts to the ammunition porters.

²¹These suggestions are based on the Infantry Battalion 11/20/1(TW) in AAOs 29 Jan 65.

- (e) The Anti-Tank Platoon becomes fighting porters to support the Mortar Platoon. Its GPMG teams remain as additional escorts.
- (f) A fighting porter platoon, under the Transport Officer, and constituted from Administrative Company cooks, drivers, and stretcher bearers, would be formed to support battalion headquarters. If the operation precludes their use then a rifle platoon must be allocated for this task.
- (g) The Signal Platoon would carry sufficient batteries to supply all but the rifle companies. They would carry their own spare radios as well as batteries.

The above suggestions are all designed to increase the infantry 'range', and so preserve security. They would give commanders, from platoon to battalion level, a porter force which is organic, and which in an emergency or pre-planned action, can fight as part of the team—a team which has trained together and within which there is mutual confidence.

During Phases 1 and 2 of communist revolutionary warfare, experience has shown that it is very difficult to come to grips with the enemy, except at a time and place of his choosing. Massed heli-borne assaults, saturation bombing and divisional-sized operations seldom succeed; more often the bird has flown and trap is empty.

Success will come only with security, and with security comes freedom of action and the possibility of achieving surprise. And with the achievement of surprise 'results out of all proportion to the effort expended can be obtained.'²² □

22 *Pentropic Division in Battle*, Part I, p. 61.

A SOLDIER'S PROPHECY

Looking back forty years later on the 1860 campaign in China, in which he had served as a young officer, Field Marshal Garnet Wolseley wrote: 'I have always thought and still believe them [the Chinese] to be the coming rulers of the world. They only want a Chinese Peter the Great or Napoleon to make them so . . . I have long selected them as the combatants on one side at the great battle of Armageddon, the people of the United States of America being their opponents.'

— Edgar Holt, *The Opium Wars in China* (1964)

The Shangani Patrol: A Rhodesian Alamo

*Lance-Corporal K. S. Deal,
Royal Australian Armoured Corps*

MOST of us who are in any way militarily minded are probably familiar with at least some of the famous military 'last-ditch stands' of the past 200 years, being able to call to mind such instances as the Alamo and Little Big Horn, and of more recent times Rorke's Drift and Isandhlana. I wonder how many Australian servicemen, either officers or other ranks, could relate the story of Major Alan Wilson and his ill-fated Shangani Patrol in Rhodesia in 1893?

The Shangani Patrol had its origin in the Cape to Cairo scheme of Cecil Rhodes and his desire to gain complete and personal control of all South African mining interests. A stumbling block to Rhodes' ambitions appeared in the early 1890s in the shape of Lobengula, King of the martial Matabele nation, and his impis led by the redoubtable M'Jaan. For several years these impis ranged the Rhodesian countryside, burning farms, raiding mining camps, harassing railway construction parties and, on the whole, making themselves a headache to everybody, especially Cecil Rhodes.

At length, in 1893, Rhodes decided that if his schemes were to be brought to fruition, Lobengula would have to be captured and sent into exile. The man he chose to entrust with this task was a retired British Army officer, Major Patrick Forbes, a man without a great deal of colonial experience, who had previously been performing the duties of Civil Magistrate in Salisbury. As second-in-command went Major Alan Wilson, a 34-years old Scot, with many years of experience in Rhodesia and O.C. of the Shangani River Patrol, a body of volunteers formed by Rhodes for the protection of his interests against the depredations of Lobengula.

The expedition moved out from Salisbury and for two weeks moved about the Rhodesian countryside without sight or sound of the Matabele. At last, on the Shangani River, a tributary of the Zambesi, two Americans, Burnham and Ingram, scouts to the expedition, came galloping back into camp with the report that they had discovered wagon tracks further upstream, leading across the dry bed of the upper reaches of the Shangani.

Forbes acted immediately, despatching Wilson with a party of eighteen men to locate the tracks and, if possible, to make contact with the occupants of the wagons. Here Forbes made his first tactical mistake. He kept Burnham and Ingram behind with him in the bivouac area, expressing the opinion that 'damned Yankees were no good in the South African bush anyway'.

Wilson, having found the tracks, followed them until he located the wagon-train which seemed to be deserted, and then decided to bivouac for the night with his party, within sight of the wagons. Unknown to them they were all the time under the surveillance of Matabele scouts. Then, about 2230 hours, it began to rain heavily and shortly afterwards the Matabele mounted their first attack.

This was repulsed by rifle fire, but Wilson knew that he was in a very serious situation, particularly when another attack was launched shortly after midnight, on the morning of 4 December 1893. To make matters worse it was still raining and Wilson, at this stage, was undecided whether to withdraw his force or to call for reinforcements. Eventually, at 0130 hours, he despatched Captain Napier to Forbes and the main body (some thirty men) to ask for help.

The arrival of Napier gave Forbes the opportunity to make his second and third mistakes. He stated that he considered the task too dangerous for the numbers at hand, but sent a force of sixteen men to help Wilson. He also ordered Napier to remain with him (Forbes). Wilson now had a party of thirty-four men, including himself, to perform a task considered by Forbes to be too dangerous for the whole body. At no time did Forbes ever appear to have given any consideration whatsoever to ordering the withdrawal of Wilson and his party from their dangerous predicament.

The appearance of the sixteen reinforcements gave Wilson and his men fresh heart. In the night they prepared some makeshift defences (sangars) and even discussed the possibility of a withdrawal at first light of morning. When this suggestion was raised, Wilson personally went to reconnoitre the river and saw that any such attempt at withdrawal would be out of the question. It had rained all through the night and the Shangani was now in full flood. Any attempt to ford it would spell death for man or beast.

Accordingly, Wilson and his men, as best they could, strengthened their defences and prepared for the inevitable. At 0600 hours the Matabele began their onslaught. The first casualties were the

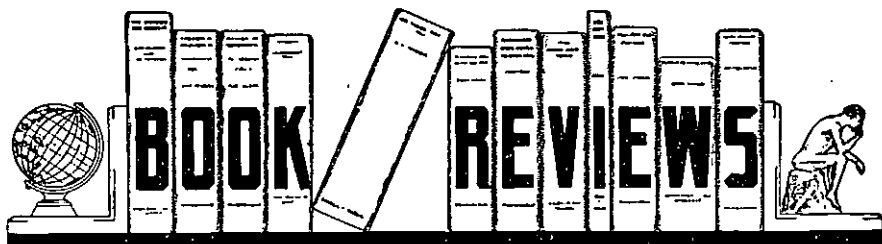
horses of the Shangani Patrol. Their carcasses were used as ramparts from behind which to fire.

Midday saw the Shangani Patrol still fighting but, as the afternoon wore on, their numbers began to thin out. Men fired from behind the bodies of dead or wounded companions. By 1600 hours every man had received an injury of some description.

By 1700 hours Wilson and a trooper named Daniels were the only members of the Shangani Patrol left in the fight. Around them dead and dying lay everywhere. Then at a hand signal from M'Jaan the Matabele massed for a final headlong rush that would put the *coup-de-grâce* even to these two.

When it was over the Matabele fell back and departed from the scene. They did not mutilate the bodies as was their usual custom. Two weeks later they surrendered, old King Lobengula having died on the day of the fight. When asked the reason for their surrender they simply stated that if a handful of men (34) could hold up the advance of so many (several thousands) for so long, what would the might of the whole British Empire be like?

The bodies of the Shangani Patrol were first buried where they fell beside the Shangani River by a trader named Jimmy Dawson. Later they were shifted to a public cemetery in Salisbury. Some time afterwards they were removed to World View (where Rhodesia places her honoured dead) and they now sleep there, not far from Cecil Rhodes himself. The finest epitaph for the Shangani Patrol came, oddly enough, from the lips of the Matabele general M'Jaan who publicly stated emotionally 'For these were men of men, and their fathers were men before them.' □



SPOTLIGHT ON SINGAPORE, by Denis Russell-Roberts.
(Anthony Gibbs & Phillips, London, 1965, \$4.60.)

Reviewed by Brigadier J. H. Thyer, CBE, DSO, GSO 1 8th Australian Division during the 1941-42 Malayan Campaign.

THIS is a most readable story of the events leading up to the surrender of Singapore, and the aftermath. The author was a company commander with the 5/11 Sikh Regiment. His book will be of great interest to Australians generally, because the author's regiment was closely associated with the 8th Division during the operations, because his wife was evacuated from Singapore with the Australian nursing sisters and was with them when she died at Muntok on Banka Island, and because Russell-Roberts was a prisoner in Changi and mentions many names well known to former prisoners of war. The three separate stories which the book contains are told graphically, simply and truthfully and with a depth of feeling that cannot fail to grip the reader.

The opening chapters narrate the meeting of the author, then a junior officer in an Indian regiment, with his future wife. In spite of the official disapproval of early marriages, he allowed a deep attachment to take control and, as a result, 'married on the moon and sixpence'. Their financial situation improved when the young couple were moved to Singapore, and six wonderfully happy years followed which were to give the events after the surrender a sharper poignancy. When the Japanese struck in December 1941, Russell-Roberts was with his regiment at Kuantan on the east coast of Malaya.

Our 22nd Australian Brigade was holding Mersing, 100 miles south of Kuantan, and we experienced the same anxieties arising from the constant flights of Japanese bombers overhead to bomb Singapore and were equally shocked by the news of the loss of the *Prince of Wales* and *Repulse*. In fact we heard the sound of the engagement coming from over the horizon.

The task of the two Indian battalions at Kuantan was to deny the aerodrome to the enemy until a large convoy had arrived in Singapore. The author describes how this was done, so gallantly yet with such heavy loss. The 22nd Indian Brigade,

consisting of the 5/11 Sikhs and the 2/18 Royal Garhwal Rifles, was then withdrawn from Kuantan to the west, where they, with the 8th Indian Brigade, formed the 9th Indian Division under Major-General Barstow. West Force was formed under the command of Major-General Gordon Bennett, with the 9th Indian Division on the right, the 27th Australian Brigade in the centre, and the 45th Indian Brigade, reinforced by the 2/29th and 2/19th Australian Battalions at Muar.

A reasonable front was held at the north of Johore, but the force was very soon compelled to withdraw under Japanese pressure. The 9th Division withdrew along the railway line and the 27th Brigade along the main trunk road on the left.

The 5/11 Sikhs were the rear battalion and we were greatly heartened by their resolute stand, fully described, at Niyor forward of Kluang. In the author's description of the withdrawal he pays a well-deserved tribute to the 2/30th Battalion and to its staunch commander, Lieut-Colonel F. G. Galleghan. I must add, however, that all Australian battalions fought with equal courage and determination on the mainland. The apparent discrimination shown by the author to the 2/30th Battalion is quite unintentional.

Most unfortunately at this stage the 8th Indian Brigade withdrew from the 22nd Indian Brigade, leaving a gap. Contact was lost, and General Barstow personally tried to restore it. He walked up the railway accompanied by Major Moses, the Senior Australian Liaison Officer (now Sir Charles Moses), and Colonel Trott, an Australian with the Indian Army. The party was fired on from the jungle. The General went down one side of the embankment, the two officers down the other side. A rather shaken Moses reported this unfortunate occurrence to me shortly afterwards. The General was not seen again.

Contact was not restored, and the 22nd Brigade became lost. Our withdrawal into the island was delayed as long as possible in the hope that the brigade would break through. It was a hard decision to have to make, but subsequent events, as revealed in the book, confirm that any further delay would have been of no avail and would have seriously endangered the security of the main body. The story of the attempt to reach the Straits of Johore is graphically told. Harassed on all sides by Japanese in the jungle, short of food, and carrying their wounded, they fought their way back step by step. Ultimately the wounded were directed to a dispensary in a coolie settlement revealed by a Tamil who appeared from nowhere.

As they were about to move off (writes Russell-Roberts), I noticed Gurmit Singh standing with tears running down his face . . . There was

something infinitely tragic and touching about this final ceremony . . . Behind them came these two little Punjabi Mussulmans, both so young and both so game. One was hobbling along with the aid of a pole as he had been doing ever since we had left the battleground three days before. His legs were clotted with dry blood and one foot was bound with mud-solled bandages . . . Let those who speak of the disgrace of Singapore pause and pay tribute to the little men like these.

Of the two battalions, only 16 British and Indian officers and 46 men, mainly Indian, managed to cross the Straits into Singapore Island. Russell-Roberts was one of the few and he was fortunately just in time to see his wife, who had stuck to her job as a sergeant clerk, before her evacuation. He was able to escort her to the *Mata Hari*, a small coastal vessel. At the quayside was a formation of Australian nursing sisters awaiting embarkation, when 27 Japanese bombers appeared overhead. A surge of pride ran through me as I read Russell-Roberts' description of the scene:

It was too late for them to scatter, nor would it have been easy for them to find suitable cover so they remained where they were, standing in two long lines staring out to sea. Despite the stress and strain of war, they were immaculately turned out in their smart tropical uniform. Not one of them looked up to the skies as the Japanese planes flew over their heads. There was something quite magnificent about their discipline.

The captain of the *Mata Hari* was a New Zealander with whom the author was able to make contact after the war. The reader consequently receives a first-hand and dramatic account of the adventures of the ship until captured by the Japanese in Banka Strait. Then follows the experiences of the service and civilian female prisoners of war and internees in Muntok and Palembang. The author's wife, with 200 others, contracted Banka fever at Muntok, and subsequently died after receiving one letter from her husband in Changi, sent with the help of 'one Japanese who was different.'

These chapters make the book a good companion to Betty Jeffery's *White Coolies*. The last chapters deal with the author's experiences as a prisoner in Changi. He deals at some length with the Selarang Affair, and provides an interesting study of the contrasting psychologies of East and West. The senior officers were not in Changi at this time, having been taken to Formosa where they had to face similar problems and solve them in much the same way as they were solved in Changi.

The general public has seldom been given a correct picture of Changi. Most stories have been given to exaggeration and Changi has often been spoken of as a Hell Camp, a Horror Camp, as a Belsen and so on. But of course it was none of these. Throughout the area there pervaded a sense of proportion and of humour. Without a sense of humour the Australian

Concert Party could not have produced its excellent scripts nor would it have received such an enthusiastic response over a period of three years and a half.

The constant aim was to defeat the Japanese. Work had to be done on the Air Strip, but it was done at the slowest undiscoverable speed. News from the outside world had to be procured by concealed wireless sets. These and similar tricks kept minds active. The medical officers did a wonderful job in attending to the sick with improvisations. Hygiene and sanitation had to be maintained. The area contained many well-known names like Ronald Searle, the artist, and Ben Barnett, the cricketer, all of whom helped considerably in achieving a spirit of toleration. These activities give the true picture and it is the picture Russell-Roberts paints. He does not minimize the frictions and the frustrations, nor does he exaggerate the food shortages. The discerning reader will come to realize the wicked distortions, the malice and the slander purveyed in *King Rat*, *MacDougal's Farm*, and similar books.

At the Japanese surrender the British officers of the Indian Army decided to take over control of each of the Indian prisoner-of-war camps in Singapore.

I shall always remember the first reunion with our Indian soldiers (writes Russell-Roberts). There must have been several thousand Indian troops in that camp . . . It was not long before men of the 5/11 Sikhs came running towards us. They came, Sikhs and Punjabi Mussulmans, hideously thin and unkempt but with smiling faces and with an enthusiasm which was the greatest tonic we had known for years.

Russell-Roberts is never critical. On the other hand he is warm in his praise. He is at pains to defend the late General Percival, and gives an appraisal with which all members of the 8th Division A.I.F. will agree. From the narrative and from his pen-portraits in 'Men to Remember', we learn of the deep loyalty, the earnestness, and the stoicism of the Indian soldier. He displays a warm regard for the Australians and particularly the Changi Concert Party. He does not forget the many civilians, particularly Chinese, who helped us at their peril.

Spotlight on Singapore is a good book, one of the best about the period after the surrender, and in full measure, a tribute. □

Letters to the Editor

Water Discipline: A Misunderstood Technique?

Sir,—The last sentence of Lieutenant-Colonel Langtry's paragraph, quoted by Lieutenant-Colonel Garland (AAJ July 1966), may be misleading. I think it has misled Colonel Garland. There is no question of being able to maintain full mental and physical efficiency when a critical degree of water lack has been reached. However, in conditions of water deprivation, the better trained and more robust personality can be expected to function better than others in the same position, up to the time when all have finally collapsed. The 'better' man can also be expected to recover more quickly if water is provided, in time. The body and mind can often be trained to function with diminishing efficiency on less water. Others manage to carry on for a while with severe wounds and blood loss.

With regard to 'less water', well-trained soldiers will be economical in its adequate use—not wasting it, and drinking smaller quantities at a time, more frequently if necessary. Soldiers who empty their water bottles in the compulsive way described are certainly untrained and probably have inadequate personalities. Obviously, thirst is not their problem.

True water discipline is:

- to drink clean (treated) water,
- to drink adequately—a calculated total in small amounts,
- to avoid waste,
- to accept unavoidable water deprivation.

The unfortunate soldier in the picture has apparently looked in vain to his section, platoon, company and battalion commander for instruction in water discipline, even the rather garbled information in *Infantry Training*, Volume 4, and *The Soldiers' Handbook*. On the other hand he appears to look forward to passing a pint or so of clear urine per day, and, although his Individual Sterilizing Outfit and Millbank Filter Bag (total weight 4 ozs) are not visible, at least he carries two water bottles. Any medical experience in Malaya of the overloading of organs by too much fluid is related neither to normal water intake nor to normal health.

Two tips for water fanciers: thirst is not a reliable guide. Sweat loss can be roughly calculated, and replacement checked by urine volume. Second: the drinking of water in large quantities

at a time tends to increase temporarily the rate of loss and may therefore be physiologically uneconomical.

The Manual of Army Health, 1954, page 41, paragraph 2, reads:

'A prevalent fallacy entertained by some combatant officers, that soldiers can be "hardened" by forcing them to go short of water when undergoing training marches, must be strenuously opposed.'

May I hope that the old dog on his hard road can learn a new trick.

Brian Clerehan, Lt.-Col RAAMC

CSTU S Comd, Albert Park.

Artillery in Counter-Insurgency Operations

Sir,—I refer to Lieutenant-Colonel Garland's article, 'The Concept of the New Infantryman', which appeared in the July issue of the journal. In this he implies that the artillery weapon although still of use for defence, hinders offensive counter-insurgent operations. I feel this is an extremely dangerous suggestion, and if accepted could have disastrous results in future operations. May I refer to a letter sent to the Battery Commander of 105 Field Battery from an American Battalion Commander in Vietnam. The following extract appeared in the Sydney *Sun-Herald*:

'Thanks for saving our lives, I have never seen finer shooting.'

I suggest that Colonel Garland is overlooking that insurgency stems from guerillas, regional and regular forces, and is the military side of Communist Revolutionary Warfare. This warfare consists of three phases: Passive, Active and Counter-Offensive. He talks of the Malayan Emergency which was classified as the passive phase. I agree that there was terrific wastage, but I cannot agree that there was a 'continual artillery bombardment. The usual grouping was one battery to about six battalions and the gunners were invariably given the task of harassing, which was never designed to produce 'kills'. I think we should also look at the thousands of infantry man hours spent patrolling in order to produce one captured or killed communist terrorist.

The author also refers to Vietnam which falls into the Active Phase. In this case we must not measure the number of kills per ton of ammunition. A more realistic comparison would be the number of 'kills' attributed to each weapon system. I submit that if the Allies did not have the massive fire power currently employed in Vietnam we would not be there now. We would have been pushed into the sea in early 1965.

Luckily for the AMF we have not been involved in Counter-Offensive Phase operations. The French were in Vietnam in 1954,

and were defeated in an artillery battle when the insurgent Viet Minh used artillery as an offensive weapon against a static operational base. Let me quote from the writings of the insurgent commander on his use of artillery, in the light of Colonel Garland's suggestion of giving our artillery to the Viet Cong. This is taken from the works of Vo Nguyen Giap whose doctrine is that now used by the Viet Cong:

Gen Navarre was not in the least worried about our artillery which he thought weak and not transportable to the approaches of Dien Bien Phu. Artillery pieces were moved by nothing but the sweat and muscles of our soldiers. Our artillery was a great surprise to the enemy and played a great part in the Dien Bien Phu battle. Our tactics were to use our artillery to destroy the airstrips and our anti-aircraft guns to cope with the activities of the enemy planes.

From the defenders' side I quote from General Navarre's operational report:

The Viet Minh command had used processes quite different from the classical methods. The artillery had been dug in by single pieces. The guns had been brought forward dismantled, carried by men. Their use of artillery was to make a shambles of all the estimates of our own artillerymen. It was the major surprise of the battle.

Surely if an insurgent force can use artillery with such devastating effects, we with our knowledge and resources in mechanics and technology, can employ our guns offensively to even greater effect. We possess a very light-weight pack howitzer, and despite what Colonel Garland says, there is absolutely no shortage of helicopters in Vietnam. The pack howitzer can be deployed almost anywhere that the 81-mm mortar can deploy. It also throws a projectile that is three and a half times as heavy, three times as far as the mortar. Colonel Garland says that with the 81-mm mortar, the infantryman is less reliant on artillery. However the new organization reduced the number of mortars in the battalion to six on the basis that artillery support would be available at all times.

I think the suggestion that the ideal situation is where all operational areas are within range of guns located within static operational bases is very valid. However, when this is not so, I submit that the answer is not to continue the operations without intimate and close fire support. The answer lies in air movement of artillery by helicopters and if correctly done this will not impede in any way the infantry operations that the artillery is supporting.

As Rudyard Kipling said in relation to Indian frontier operations at the turn of the century: 'If you want to win your battles, take an' work your bloomin' guns.'

Australian Staff College,
Queenscliff, Vic.

D. K. Baker, Maj

Sir,—In Lieutenant-Colonel R. S. Garland's article 'The Concept of the New Infantryman' the setting was South Vietnam and the Viet Cong. I gathered that the conclusions and many of the supporting statements were based on counter-guerilla or counter-insurgency operations.

I do not think that anyone would disagree with the contention that correct grouping for an operation is of paramount importance. I would argue that the present war in South Vietnam is more than a counter-guerilla war, and rather a war to counter Communist Revolutionary Warfare. This is by definition:

Warfare engaged in by communist rebels of a country against the established government of that country. It is conducted by political, economic and military means. Its military method includes insurgency in which guerilla, regional and regular forces may all play a part. In South-East Asia communist revolutionary warfare follows the pattern established by Mao Tse Tung. This is protracted revolutionary war which has three phases: the Passive Phase; the Active Phase; the Counter-Offensive.

Even this definition does not cover the case in South Vietnam where there is active assistance from the North with PAVN formations and materiel.

Our new infantryman, assisted by our new supporting arms and services, with either RAAF or US airlift and air support, must fight in this environment. I would not claim that the communist forces have reached the Counter-Offensive stage. In South Vietnam, depending on the operational area, the other phases can be met. To defeat any threat we need a balanced force. The commander can then group a force for a particular operation in a particular area to meet a particular threat.

The lessons learnt in New Guinea or Malaya are important. They must be examined in context. I have no first-hand knowledge of the former, but I gather one main point of the US Army reports on that theatre, and on the whole Pacific campaign, was the shortage of engineer units. I do not wish to concentrate on the sappers, but consider that at times in South-East Asia, they will be vital. We have a limited helilift capacity and a limited air-dropping capability. Engineers are needed to prepare, maintain and improve Tac T airfields to support our forces. Without an airfield any operations may be impossible.

The gunners gained experience in Malaya. The Australian field battery formed a part of the British Commonwealth Strategic Reserve. This force may have been needed anywhere. In Borneo operations, the role of artillery was more important. There fire was used effectively, admittedly mainly on tasks in support of static company bases.

In my opinion we need artillery in South Vietnam as well as every other form of conventional fire support which can be

used effectively. We are not hunting a few CTs but are seeking to eliminate a determined and well-equipped enemy. It is not counter-guerilla but counter-revolutionary warfare. I would therefore disagree with the following points on which the article was based:

- (a) 'The firepower of artillery does not prove decisive or even useful in war unless this firepower is delivered on identified enemy targets. Suitable targets are seldom available in fluid warfare.'

In South Vietnam these targets are available and the war is fluid, thanks to helicopters. The US forces find it worthwhile to operate with M2A2 105-mm howitzers. These weigh 4,980 pounds and are lifted with much more difficulty than the L5 howitzer. This weighs 2,808 pounds and is easily broken down. The US marines found their M2A2s indispensable in recent operations against PAVN regular regiments in the demilitarized zone. I would imagine that our Task Force found New Zealand L5s useful in the D Company 6 RAR operation reported on 19 August. Their opponents were from a Main Force regiment. There are many other examples from South Vietnam which demonstrate the value of artillery support. Armed helicopters do provide the infantry with some fire support. The RAAF has none. No present-day armed helicopters can provide sustained fire support from their weapons systems, which are used mainly against area targets. Another restriction is their limited endurance.

- (b) 'The mobility of armour does not confer tactical advantage unless it can envelop, trap or destroy an enemy force. This is seldom possible against an enemy such as the Viet Cong.'

I doubt the value of our main battle tanks in Vietnam. I think cavalry in its recognized roles and especially the APCs are a different matter. It was the APCs, according to published reports about the Australian engagement on 19 August, which moved the reinforcements. APCs with their mobility and amphibious capability must be useful to a commander.

- (c) 'In South-East Asia, the vital arm is infantry. In certain operations in South-East Asia the infantry battalion is capable of achieving greater mobility and greater success without the support of either armour or artillery.'

Most must agree that the infantry is the dominant arm in South-East Asia. I would not accept the remainder of the statement as a generalization to apply to Communist Counter-Revolutionary Warfare, especially in South Vietnam. It would apply to some operations and areas, but should be taken as an exception and not the rule.

- (d) 'Lord Wolseley has stated that "the effect of artillery is absurdly small upon an enemy who does not fight in large or even formed bodies" . . . A fluid enemy will always clear out of gun range.'

The Viet Cong and the PAVN regulars mostly fight in formed bodies and often in formations. They are also fluid. The suggestions which followed regarding passing our guns to the Viet Cong, thus forcing them to wrestle with the subsequent problems, is interesting, but unfortunately Dien Bien Phu is a reminder of what the Viet Minh did with some M2A2s.

I would not disagree that in certain circumstances we can do without guns, armoured vehicles, helicopters, or any other equipment. It must always be a balance between the threat and how we are to defeat it. If we cannot cope during an operation with the logistic problems involved in field artillery support we may need more mortars. Conversely, on another operation, the extra range provided by medium guns may make their deployment in support necessary.

Tactical air support is most important, but owing to weather, identification, and the weapon systems available, it cannot replace artillery in its role of intimate fire support.

We must remember that to support the new infantryman we have a new gunner. In fact a new Army with a new concept. No one doubts the value of infantry, or of patrolling in the established manner. We are no longer patrolling for CTs, but rather for a well-organized and ingenious enemy. To meet and beat him we need a force tailored to the operation. In general, in South-East Asia, and especially now in South Vietnam, this force needs to be balanced, and to include our guns.

Australian Staff College,
Queenscliff, Vic.

C. A. Coyne, Maj

CORRECTION

In the article 'Junior Leaders from Scheyville' (AAJ No. 204, May 1966) in the seventh line from the bottom of p. 6 appears the statement that 'leave is granted from 0700 hours on Saturday'. The time should read 1700 hours.