ARMY JOURNAL

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Editor: C. F. Coady
Staff Artist: G. M. Capper

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$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.

COVER: Detail from diorama 'Light Horse Charge at Magdhaba, Palestine, 1916', at the Australian War Memorial.

ARMY JOURNAL

A periodical review of military literature

No. 246, NOVEMBER 1969

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(Army Public Relations)

Planning conference during Operation 'Blue Mountains' in Phuoc Tuy Province, South Vietnam in July 1968. The five-day operation by members of 1 Battalion Royal Australian Regiment, 'C' Squadron 1 Armoured Regiment and 'A' Squadron 3 Cavalry Regiment was held in the area just north of the Long Hai Hills.

Luscombe Field—Nui Dat

Major W. W. Lennon
Royal Australian Engineers

Introduction

SINCE December 1966 there have been more than 3,000 Royal Australian Air Force sorties of Caribou aircraft alone, in and out of Luscombe Field, the airhead of the First Australian Task Force (1 ATF) in Phuoc Tuy province, South Vietnam. In addition to these, there have been innumerable light aircraft sorties by 161 (Independent) Reconnaissance Flight and by United States Air Force (USAF) forward air controller (FAC) aircraft. C130 and C123 aircraft of United States Air Force have supplemented the regular Caribou courier service in moving men and material to and from 1 ATF. Most task force soldiers have landed and taken off Luscombe Field at least once in their tour of duty, on joining or leaving their units or going on Rest and Recreation leave. Many have no doubt wondered why the airfield was built with an embankment on the northern side; and why the runway has so many appreciable hills and valleys along its length; and why it was located across Route 2; and why it was called Luscombe Field.

The purpose of this paper is to chronicle the events relating to the construction, naming, opening, and subsequent developing of Luscombe Field. Some of the factors which were considered in locating and orienting the airfield are presented to give some explanation of the peculiarities and deficiencies which are apparent today.

Background

1 ATF moved into the Nui Dat area in early June 1966, and units were deployed so that a compromise was struck between immediate and

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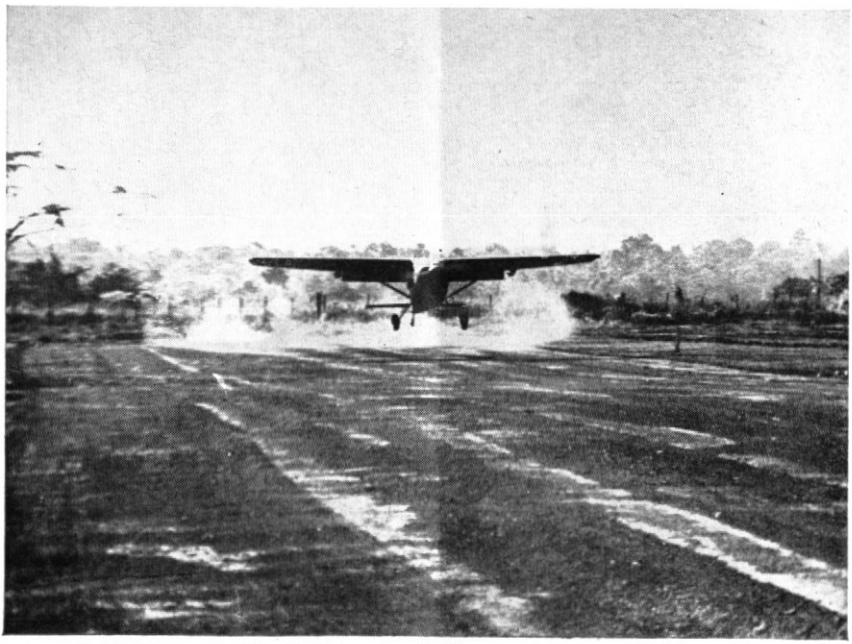
After graduating from the Royal Military College in 1956 Major Lennon attended the University of Queensland for a degree of Bachelor of Mechanical Engineering. Service with 17 Construction Squadron followed until 1962 when he was attached to the Snowy Mountains Hydro-Electric Authority. Posted to 7 Field Squadron in 1963 he became, in 1964, an Interchange Officer with the 25th U.S. Infantry Division (Hawaii). In 1965 he was OC of 20 Field Park Squadron which was redesignated 20 Engineer Support Squadron.

As OC of 1 Field Squadron he served with 1 ATF in Vietnam in 1966 after which he returned to 17 Construction Squadron as OC. In May 1967 he was appointed SORE 2 in the office of E in C, AHQ Canberra, a position he occupied until August this year when he left to attend Staff College, Camberley.

future requirements. On the one hand was a need for a fairly compact defensive layout around the Nui Dat feature; on the other was the requirement for early development of domestic roads, and provision of adequate empty spaces for eventual construction of essential buildings and installations. Not the least important of these installations was an airfield. With the wet monsoon imminent, top priority for engineer base development effort was directed to construction of scale 'A' accommodation and access service roads to units, in the hope that units would not become mud-bound in their essential domestic activities. To further assist with this aim, re-supply for the first few days in the area was by means of 2½-ton trucks along Route 2 to a hastily built transhipment area adjacent to Route 2, where cargo was transferred to ¾-ton and ¼-ton vehicles. These latter vehicles were used to move stores to unit areas, avoiding movement on proposed road alignments, to minimize development of quagmires.



A Cessna of 161 (Independent) Reconnaissance Flight making the first landing on Luscombe Field on 31 October 1966.

During this early period, it was necessary for 161 (Independent) Reconnaissance Flight, a Task Force unit, to remain at Vung Tau with the First Australian Logistic Support Group (1 ALSG), since the fixed wing light aircraft had to use the Vung Tau airfield.

EXTRACT FROM MACV AIRFIELD CRITERIA FOR TACTICAL C130 AIRFIELD

Runways:

Length	—	2,500 feet
Width	—	80 feet
Gradients		
Longitudinal	—	0–3%
Changes	—	0–1.5% in 100 feet
Transverse	—	0–2%
CBR	—	10+
Shoulders	—	10 ft
Clear Areas		
Width	—	35 feet
Grades	—	0–5%
Overruns		
Length	—	300 feet
Width	—	60 feet
Lateral Safety Zones		
Slope	—	7:1
Width	—	75 feet
Runway Clear Zones		
Length	—	500 feet
Width	—	150 feet, flares to 500 feet at 500 feet
Grade, maximum	—	5%
Runway Approach Zones		
Length	—	6 miles
Width	—	500 feet, flares to 2,500 feet at 2 miles.
Slope	—	35:1

Taxiways:

Length	—	Variable
Width		
Straightway	—	30 feet
Turn radii	—	70 feet
Gradients		
Longitudinal	—	0–5%
Transverse	—	0–3%
Clearance from runway	—	245 feet
Clear Area		
Width	—	65 feet
Grade, maximum	—	5%

Aircraft Parking Areas:

Dimension	—	Variable*
Clear Area		
Width	—	65 feet
Grade, maximum	—	5%

* The minimum parking area for ten (10) C130 aircraft on this type airfield is 1,500 feet by 150 feet (25,000 square yards).

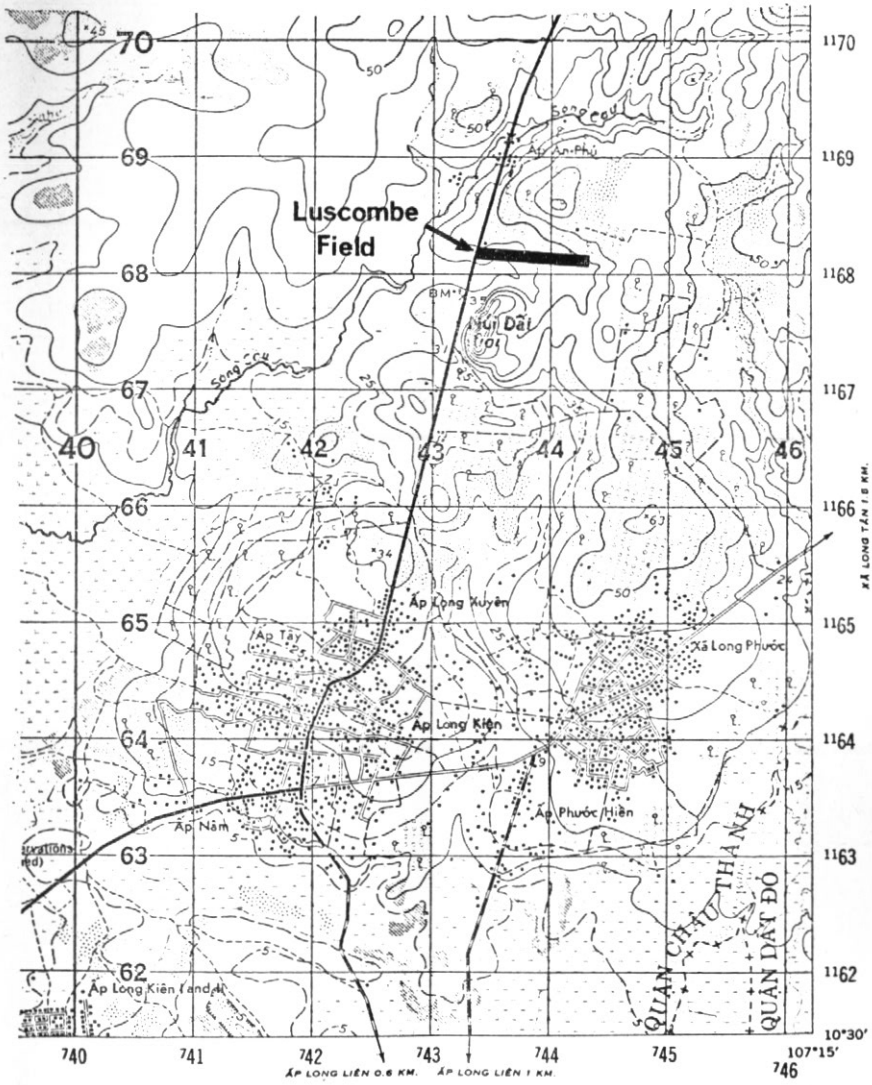
Runway Surface: Packed earth runways are adequate for C130 use on this type of field. However, to ensure trafficability during all environmental conditions (especially the rainy season) runway surfacing is desirable. The type of surface ranges from concrete to dust repellent.

The staff, assisted by engineers, prepared an initial master plan, making provision for a Caribou standard airfield and a large landing area for helicopters, in addition to other facilities. Sites for the airfield and main helipad were selected by 1 Field Squadron (RAE) based on the TF Commander's tactical and logistical requirements, the ruling airfield criteria provided by Military Aid Command Vietnam (MACV), and local advice from RAAF.

Siting the Airfield

Route 2 was selected as the Main Supply Route (MSR) in the initial maintenance plan. The road had certain obvious disadvantages. South of Baria it crossed two large rivers by means of French military Eiffel bridges (similar in construction to Bailey) which were estimated to be Class 12. In each location the Eiffel bridges were supplemented by old bridges of local construction of Class 9 capacity. The road was narrow, the surface of poor quality, and the route passed through Baria and the village of Hoa Long. There were many areas well suited to enemy ambush and sniping, or to road obstruction. The usual precautions were taken to obviate the inherent difficulties of the MSR, and alternative maintenance plans were made, to be executed if the MSR should fail. These plans included limited re-supply by US Iroquois utility helicopters which were supporting the Task Force, backed up if necessary by Chinook medium helicopters over longer periods. Initial road convoys attempted to carry forward enough essential stores to provide a small reserve on the ground. If all other means failed, a re-supply airlift operation could have been conducted with C130s into Binh Ba airfield, 7 kilometres to the north in insecure territory. Light fixed wing aircraft sorties were to be flown out of Vung Tau, and Baria, where there was a 900-ft long dust-sealed runway adjacent to the Van Kiep military compound. This strip was marginal at best, and virtually useless in cross winds. Helicopters used natural and hastily cleared pads in the various unit areas.

In the initial laying out of the Task Force, three large tracts were left vacant within the area to provide for the airfield and a major heliport. Since all three of these areas were naturally fairly low and virtually below the wet monsoon high water mark, they were not attractive for the initial deployment. Since engineer effort was directed to other tasks and since the wet season was commencing, reclamation could not be attempted at that time. Between the Nui Dat feature and the TF HQ rubber plantation was a natural cleared area which was used initially as the main helipad, and was known as Kangaroo Pad. By means of some fairly substantial drainage and excavation, this area could be converted to a large heliport running east-west, or, with considerably more effort, a Caribou



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INDEX TO BOUNDARIES
TABLEAU SYNOPTIQUE DES LIMITES
BẢNG CHỈ-DẪN VỀ RANH-GIỚI HÀNH-CHÁNH

INDEX TO ADJOINING SHEETS
TABLEAU D'ASSEMBLAGE
BẢNG RÁP ĐỊA-ĐỒ

airfield with a number of fairly stringent restrictions. The proximity to TF HQ and the extensive earthworks requirement for an airfield made this area better suited to ultimate development as a heliport. The two main areas which were considered for the airfield were:

- To the west of Nui Dat using Route 2 as a centre line (running north-south), and located between 5 RAR in the north and TF HQ in the south.
- To the north of Nui Dat just south of the rubber plantation which was occupied by 5 RAR and to the east of Route 2, oriented east-west.

The former location offered several advantages in the short term — the alignment was already fairly clean of vegetation; the road provided a ready-made (though narrow) runway, which could be widened and graded smooth; the entire runway would be dominated by the Nui Dat feature, and the ends secured by Task Force units; the airfield would be centrally placed for easy access from all units.

Many disadvantages were apparent, however, particularly in the longer term. The alignment was at right angles to the prevailing wind directions, these being east to west from November to February and west to east from April to September. The flight path of fixed wing aircraft would cross that of helicopters using Kangaroo Pad. The western flank of the entire length of the runway would be exposed to enemy observation and possibly direct fire from Nui Thi Vai hills to the west. In addition this flank was vulnerable to enemy ground attack since there were no friendly units located to the west of Route 2 in this area. Immediate approaches from both ends were over rising ground and gradients along the centre line were too great for ultimate use by aircraft larger than Caribou. If excavation had to be done, the advantage of the ready-made runway was negated. Drainage for subsequent expansion of parking areas and service areas would be a major task, as there were two perennial streams crossing the road in this area. If Route 2 were used for the airfield it would be necessary to construct a bypass road so that civilians to the north could get produce to the markets in Baria and Vung Tau.

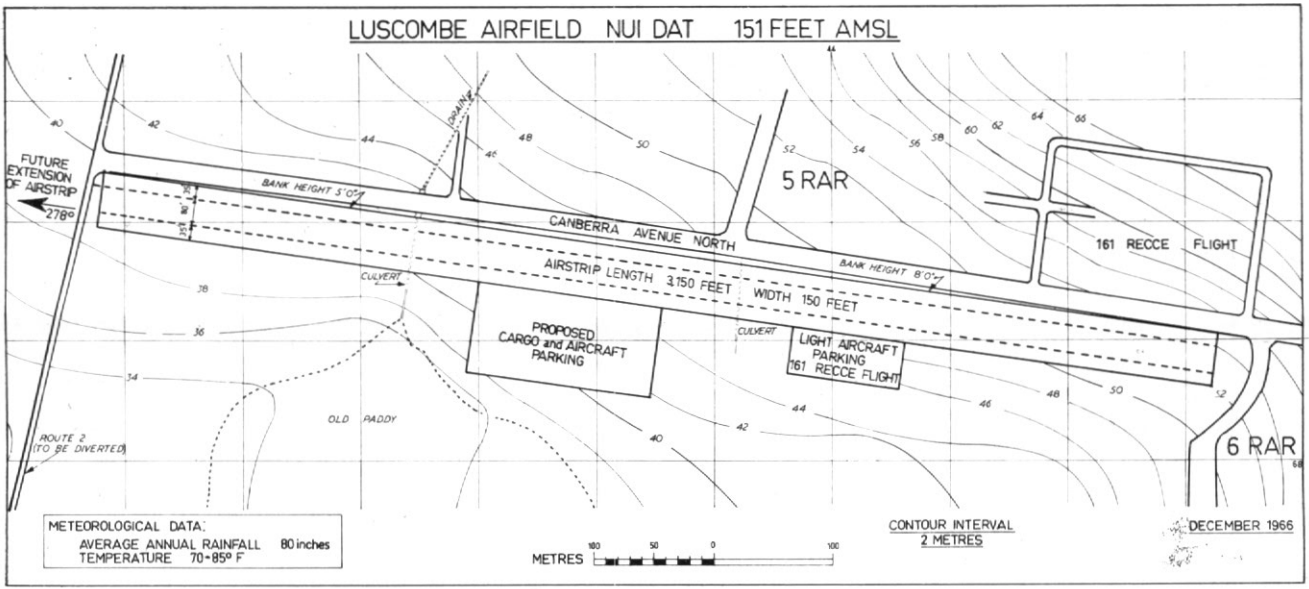
Consideration of these, and other relatively minor factors pointed to the ultimate location as the most suitable. This site too, presented some problems. Although most of the proposed area was only lightly covered with young rubber trees and scrub, the northern and eastern boundaries were covered with tall rubber, up to 45 feet in height — which provided cover for elements of 5 RAR and 6 RAR respectively. There was quite a pronounced cross-slope from the 5 RAR area on the north side to a

perennial watercourse running parallel with the proposed runway to the south. The space between 5 RAR and the stream was obviously restrictive for proper lateral cleared zones. The pronounced cross-slope indicated a requirement for substantial drainage structures to carry run-off from 5 RAR to the stream. The approach glide path from the west was across unoccupied ground to the west of Route 2, and the western end of the runway could be observed from Nui Thi Vai. Eventual extension of the airfield to C130 standard would involve crossing Route 2 to extend the runway proper into unoccupied ground to the west. Notwithstanding these shortcomings, the advantages (or minimal disadvantages) made this site the most attractive for the task force air-head.

Design and Construction

During the first three or four months, while the bulk of the engineer construction effort was diverted elsewhere, there was little work done on the airfield site. Since the 5 RAR area needed major monsoon drains to carry away run-off, these were constructed at proper levels, and in the right positions to fit into the drainage plan of the future airfield. To permit earthworks to continue at a later date, two 48-inch diameter corrugated iron culverts were installed under the runway alignment, each one being 150 feet long. Some clearing of the site was demanded during this period to permit construction of the northern limb of Canberra Avenue, which ran parallel to the airfield and provided major access to 5 RAR. From time to time some additional patchy work was accomplished when machines were precluded from working on priority jobs by bad weather.

The MSR remained intact, though its condition deteriorated, until early October 1966, when an overweight US vehicle fell through one span of the old Class 9 bridge near Cau Rach Ba. Although the Class 12 Eiffel bridge was undamaged, the vulnerability and inadequacy of the bridges was demonstrated by the incident. By this time, there was a greater proportion of heavy loads required to be moved from Vung Tau to Nui Dat — and several risk crossings had been necessary over the Eiffel bridges with loads greater than Class 12. There were two significant results from the bridge failure. Firstly, a semi-permanent hard-standing was constructed south of Baria, so that Australian Army Landing Ships Medium (LSM) and US Navy Landing Craft Utility (LCU) could bypass the weak bridges with heavy loads. Secondly, it was emphasized that daily tonnages required by the Task Force had increased to the extent that helicopter resupply, as an alternative maintenance system, would probably be unable to provide the lift capacity demanded. Furthermore,

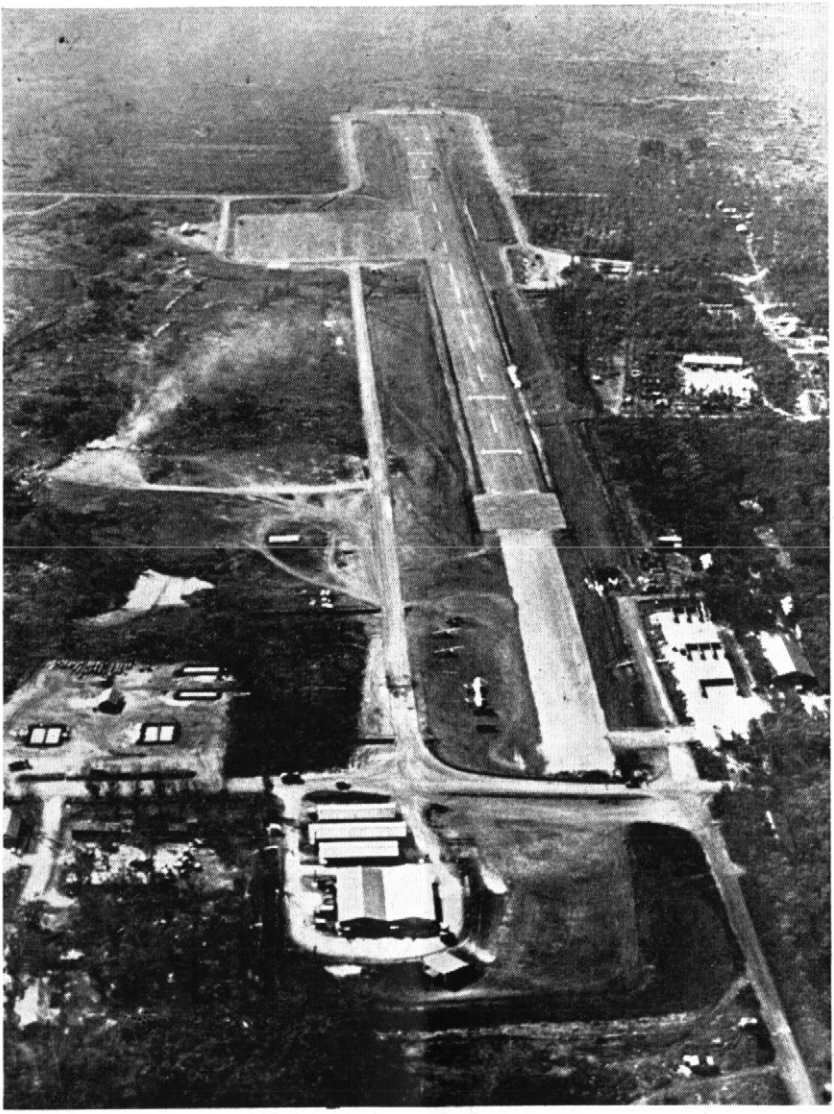

LUSCOMBE AIRFIELD NUI DAT 151 FEET AMSL
FUTURE EXTENSION OF AIRSTRIP
278°
BANK HEIGHT 5'0"
DRAIN
CANBERRA AVENUE NORTH
AIRSTRIP LENGTH 3,150 FEET WIDTH 150 FEET
BANK HEIGHT 8'0"
5 RAR
161 RECCE FLIGHT
CULVERT
PROPOSED CARGO and AIRCRAFT PARKING
CULVERT
LIGHT AIRCRAFT PARKING 161 RECCE FLIGHT
OLD PADDY
ROUTE 2 (TO BE DIVERTED)
6 RAR
METEOROLOGICAL DATA:
AVERAGE ANNUAL RAINFALL 80 inches
TEMPERATURE 70-85° F
METRES 100 50 0 100
CONTOUR INTERVAL 2 METRES
DECEMBER 1966

1 ATF operations were ranging further afield, and placing heavier demands on the limited available helicopter support for daily resupply from Nui Dat to forward operational bases. The Task Force Reconnaissance Flight was still located in Vung Tau. As essential base development work had progressed well since June, priority of engineer effort was directed to the construction of a Caribou airfield in mid-October 1966.

The detailed survey of the site revealed a dilemma for the airfield designers. Between Route 2 in the west and the 6 RAR rubber plantation in the east there was more than sufficient length for a Caribou strip. There was, however, a total rise of 50 feet, with several natural hollows and bumps over the length of approximately 3,000 feet (i.e., approximately 1½ per cent). The 6 RAR position at the eastern end of the site lay on a crestline rising to about 100 feet above the end of the clearing at a distance of 500 yards from the edge of the clearing. If an attempt were made to cut-and-fill to reduce the overall fall in the runway, a large amount of excavation would be required, and the 6 RAR crest would be accentuated. In addition, surrounding cleared zones would be at different levels from the runway (unless enormous excavation work was undertaken) and this would constitute increased hazard to pilots, and introduce difficulties with access to parking areas. On the other hand, if the 50 feet fall were retained, being well within the 3 per cent gradient limit prescribed by MACV, the effect on aircraft on the runway was assessed to be equivalent to a permanent easterly wind of 25 knots — except that during take-off to the east, the effect would contrive to lower airspeed rather than to increase it. After consultation with RAAF, it was decided to accept the overall fall and adapt operating procedures to allow for it. The added restriction of the 6 RAR crest reinforced this decision. It was decided that aircraft would generally land up-hill (towards the east), and take off down-hill exploiting the assistance of gravity, and avoiding a glide path over the 6 RAR crest. On the rare occurrences of strong easterly winds, procedures might have to be modified. In order to minimize excavation it was considered satisfactory to accept relatively large percentage changes in longitudinal gradients, provided they were within the limits of the MACV criteria — hence the dips and bumps in the airfield — not designed to provide ski-jump take-off assistance, as was suggested by one early passenger.

A Caribou airfield would not require the full 3,000 feet which was available, so it was decided to attempt to construct the field to meet requirements of MACV criteria for limited use by C130 aircraft. The unique operating procedures made it possible to do this, since the over-run at the eastern end could be converted to extra runway. The runway

could be extended at a later stage to the west of Route 2, to measure up, with some minor restrictions, to the standards for a fully operational



A view of Luscombe Field looking east to west.

C130 airfield. The cross slope of the runway and limited width of the site meant that an embankment had to be cut along the northern edge of the flight strip.

From the engineering point of view, it was desirable to accomplish earthworks as quickly as possible. Disregarding the formidable list of other tasks on the job-priority table, it was desirable to cut, fill, and compact the earthworks during the period between the wet monsoon and the dry season. It was hoped that it would be possible to work the soil at close to optimum moisture content, thus minimizing the need to haul and spread water for compaction, and for dust laying. The plant operators of 21 Engineer Support Troop RAE, under command of 1 Field Squadron, responded to the challenge in characteristic sapper fashion. Earthmoving equipment operated from daylight till dark, clearing, cutting, hauling and compacting. With the end of the wet season the soil quickly lost its moisture, and it became necessary to spread water to ensure adequate compaction. Improvized water tanks were constructed by reinforcing and lining large packing cases which had contained prefabricated metal buildings. Water was distributed and the airfield was rolled in pre-dawn darkness to minimize evaporation losses and to exploit overnight condensation. This operation was made possible by the co-operation of the APC squadron and the infantry battalions who provided standing patrols to the west of Route 2, while engineers worked in darkness. After about 50,000 cubic yards of soil had been excavated and the flightstrip had been graded and compacted, a covering of locally won laterite was laid over the runway and shoulders. The runway proper was clad with high quality leached laterite which was extracted from a quarry between 1 ATF and Hoa Long. Some 5,000 cubic yards of this material were imported to provide a 9-inch thick compacted pavement on the 80 feet wide runway.

Opening the Field

On 31 October a Cessna of 161 (Independent) Reconnaissance Flight conduced several 'proof landings' on the airfield, though it was far from complete at this stage. The purpose was twofold. The landings confirmed that the runway could be used in emergencies from that date. Plant operators working on the site had noticed FAC aircraft of the US Air Force doing low-level runs over the cleared area. While engineer graders and excavators pre-empted an American inaugural landing on the strip, a hasty engineer/aviation reconnaissance was arranged and a Cessna was diverted from Baria to conduct the proof landings. By late November, the airfield was ready for inspection by USAF representatives.

They required the removal of some 400 trees from the eastern end of the airfield in order to certify the field suitable for use by Caribou and C123 and by C130 with Grade A pilots. This additional work was completed in time for the official opening of the field on 5 December 1966, the completion date which had been forecast in early October. At this stage the airfield was regarded as a dry weather strip — since traffic during wet weather could damage the surface.

A Caribou of 35 Squadron (RAAF) landing on Luscombe Field at the official opening on 5 December 1966.

A simple opening ceremony took place on 5 December 1966 before a small guard of honour of engineers and army aviators, flanked by light aircraft and earthmoving equipment. Brigadier O. D. Jackson, Commander 1 ATF, unveiled a commemorative plaque, naming the airfield 'Luscombe Field'. A Caribou of 35 Squadron (RAAF) landed on the runway, using only a small part of the total length available. The airfield was named after Captain B. Luscombe (RAA), who was one of the first Army aviators. He was killed in action in Korea whilst flying an air observation post mission.

Subsequent Development

Later in December the runway was sealed with 'Peneprime', a bituminous dust palliative. In the absence of crushed rock, sand was used with the bitumen. Even spreading was difficult to achieve without special equipment, and a technique was developed whereby hovering helicopters spread the sand and blew away excess material from the sealed strip. Repeated applications created a waterproof skin which enabled Luscombe Field to be used throughout the following wet season without damage. 1 Field Squadron (RAE) built workshops, parking areas, and accommodation for 161 (Independent) Reconnaissance Flight in the rubber adjacent to the northern edge of the airfield, at the eastern end. Prefabricated metal airfield matting was laid over a plastic membrane to give a waterproof, dust free, parking and working area in the shelter of the rubber plantation. Aircraft parking areas were constructed on the south side of the runway, and a new Task Force Maintenance Area was built between Nui Dat and 6 RAR, to the south of the airfield. Development progressed continuously until December 1968 when engineers of the US 34 Engineer Group extended Luscombe Field to 4,100 feet and permanently sealed the whole runway. The pavement of the extension was made from locally won crushed rock and it had been intended to sheath the entire runway with similar material. Since the existing runway had shown no signs of failure or weakness at any time, and since the existing pavement was obviously adequate to the task, the runway re-construction plan was abandoned as unnecessary.

Conclusion

Luscombe Field is probably taken for granted by most new arrivals to the Task Force area. An airfield is to be expected in a well developed task force base. Probably the only comments which are aroused are those which question the peculiarities of the airfield or those which wonder where it got its name. Luscombe Field is a monument to much more than Captain Luscombe. It represents many aspects of the part played by the Australian Force in Vietnam. It contributes to the connecting link between the Task Force and its supporting units and commanding HQ. It is the 'front door' of 1 ATF through which thousands of men have passed, going to and coming from the war. Luscombe Field is a symbol of co-operation and mutual support between the forces of Australia and the United States; between the Royal Australian Air Force and the Australian Army Aviation Corps; between those who need roads, buildings, and airfields and those who construct them — the sappers of the Royal Australian Engineers. □

Tertiary Education for Officers

Major J. Fletcher, GM

Royal Australian Infantry

THE Wiltshire Committee recommendations that Federal assistance be given to establishing colleges of advanced education as degree granting bodies have recently been endorsed by the government.[1] This event highlights the growing awareness of the importance of tertiary education, a fact already recognized by the Army with the affiliation of the Royal Military College to the University of New South Wales and the establishment of a degree-awarding Faculty of Military Studies at the college. By the end of this century there will be a large percentage of degree-qualified officers at all levels in the Army, instead of the present few, who hold mostly technical degrees.

This is a most worthy long term aim. Nonetheless, an even more desirable situation would be to have more sooner.

Such a situation is possible. It can be achieved if facilities are provided and officers encouraged to take degrees by correspondence. This article offers a solution.

The reasons why a non-technical army officer should have a degree need little argument. Let the reader decide this question, bearing in mind the recent decision to grant degrees to future RMC graduates and the fact that a degree gives to an officer a more professional standing; a professionalism shared by the whole Army to Australia's advantage.

Major Fletcher graduated from RMC in 1955 and served as a platoon commander with 18 NS Trg Bn (Tasmania), as IO 1 RAR and as Adjt/QM of 2 Commando Coy. In 1960 he rejoined 1 RAR in Malaya, and continued there with 2 RAR. He was Adjt 1 RTB 1962-64 followed by eighteen months in USA/UK for SAS and Commando training, where he qualified at Special Forces, Ranger and Pathfinder courses. On his return he commanded 1 SAS Sqn and was 2IC SASR when assigned to Vietnam in 1967 as SAS LO/Adviser. In this capacity he was seconded to J2 MACV as a Reconnaissance Officer. He attended Staff College in 1968 and is currently Tactics Wing instructor at JTV.

Modern society tends to be less concerned about types of degrees, but rather that they are the tangible evidence of a man's professional and academic ability.

Apart from the few officers who have obtained degrees by Army sponsored attendance at a university, a number of others have completed degree courses, in their own time, as a part-time or external student. Part-time students are required to attend lectures and therefore need to be conveniently located. External students take their courses by correspondence, with a requirement to attend an 'on campus' residential school of about one week for each unit.

The residential school requirement is the greatest inconvenience for serving officers taking external courses, and deters others who might otherwise make the attempt. For example, an officer enrols for a course and takes Economics I. The residential school for this unit is, say, the last week in October. After completing several months study and numerous assignments towards this unit he is posted overseas or is to take a key part in a major training exercise at that time. No attendance — no credit. Travelling costs, accommodation costs and leave are other barriers. Consequently, there are very few officers who, by reason of their appointment, finances or family situation, are able to complete a degree course in this way. Those who have succeeded deserve much praise.

A department of external studies within the Faculty of Military Studies at RMC, empowered to award the same degrees as those gained by cadets, is the most practical solution to this problem. An examination of the factors to be considered to fulfil this proposal follows:

Staff. The Department of External Studies, to give it a name, could be directed by a senior faculty member in addition to his normal duties, by a committee of faculty members or, best of all, by the addition of a permanent director. Whichever course is adopted, a full-time registrar would be required for the administration of the scheme, assisted by the existing clerical organization. The regular lecture staff could handle students' assignments in addition to their normal duties. Remuneration for this service will be discussed later. Staffing requirements must eventually be determined by the number of students. Initially, with a modest start, additional staffing would be minimal.

[1] The report of a committee to enquire into university awards, chaired by Mr F. M. Wiltshire, a Melbourne company director and industrialist, was tabled in the House of Representatives by the Minister of Education and Science (the Hon. Malcolm Fraser, MP) on 17 September 1969.

Students. All regular serving officers, irrespective of their avenue of entry, should be eligible, subject to matriculation. Not only would this allow previous RMC graduates to gain a degree commensurate with future graduates, it would also encourage OCS graduates and others to gain the same academic qualifications. The scheme could also be extended to cater for officers of the RAN and RAAF, as a type of joint services extension academy.

Courses. The subjects and units would conform to those taken by cadets, leading either to an arts or a science degree. In the latter case there may be difficulties with the practical work, but in the case of RMC graduate students, cognizance could be taken of laboratory work done as cadets.

Credits. Most RMC graduates have a certificate to the effect that the Board of Studies recommends that they be granted university credits in a number of subjects, based upon the individual standard of passes obtained. These, of course, should be allowed, preferably without the usual ten-year limit often imposed by other universities. Similarly, credits gained at other universities or institutions of equivalent status should be recognized, even to the extent of allowing credits for subjects not covered in the syllabus in lieu of ones which are. Naturally, each application for a credit would be judged on its own merits.

Residential Schools. This requirement, as previously mentioned, is probably the greatest deterrent to officers taking external courses. It is a genuine requirement, for without this personal student-lecturer/tutor relationship, albeit short, much of the value of a tertiary education is lost. It is difficult to see that a military institution catering for military officers in the furtherence of their military education could not make allowances for the exigencies of the military service. There are many courses open. A number of residential schools for each subject could be held throughout the year, to allow the student a choice. Another course may be to conduct a concentrated three or four-week residential school for a number of subjects, so a student may do two or more together, with no more disruption to his job than that caused by an Army course of similar duration. Yet another may be to grant exemptions in all or part to the more recent RMC graduates. These, after all, have had a fair share of residency. Students should be allowed to defer attendance without prejudice to their written work or progression. Other encouragements which could be offered for the residential school requirement include the provision of rations, quarters, travel and time as for normal Army schools and courses.

Library Facilities. Adequate library facilities are often a major problem for external students. The Army is well suited to provide all the prescribed books and most of the references through its own libraries at the various centres within Australia and overseas. The provision of books will be aided by the relatively narrow and fixed range of subjects and the ability, if needed, of the reorganized Army library service to reallot material from centre to centre according to demand.

Finance. There are two extremes to this factor. One is to have the scheme completely free, including tuition fees, books and attendance at residential schools under normal Army course conditions. The tuition fees would go to individual lecture staff in proportion to the number of external students administered by each, in addition to his normal cadet commitments. The other extreme is for the student to take a course under the same conditions now prevailing for external students at other universities. The lecture staff would again receive their proportion of tuition fees. The first alternative is preferred and represents a very sound national investment considering the return received — apart from the fact that most of the student's work is done in his own time.

Financially, it is a better proposition than full-time schooling, although it takes longer. There are many compromises possible between these two extremes. For example, students may be required to pay tuition fees for each unit, to be reimbursed on the successful completion of each unit or the complete course. Similar situations are already covered by existing financial regulations. One possible advantage of this compromise (apart from a saving of public funds in the event of failure) is that it would be an additional incentive for the student to pass, and so recoup his outlay. Whatever course or compromise is adopted, the residential school requirement should be treated as a normal Army course, as this is the biggest stumbling block to enrolment and greatest inconvenience after enrolment.

Some of the advantages of such a scheme are:

- The number and proportion of degree-qualified officers at all levels would be significantly increased, thus enhancing the professionalism of the Army.
- OCS graduates and other officers would have the opportunity and encouragement to obtain the same academic qualifications as RMC graduates.
- Previous RMC graduates would be better able to utilize their credits towards a degree.
- The exigencies of the service would be catered for.

- Apart from residential schools, study would be in the students' own time.
- No capital expenditure would be necessary and very few additional staff required.
- RAN and RAAF officers could be included.
- The lecture staff would be able to supplement their salaries and would benefit by contact with a broader and more mature student body.
- It would be an incentive for the recruitment and retention of officers.
- Resettlement of retired officers would be easier, and their continued contribution to society greater.
- It would be a cheap investment for Australia which would continue to pay dividends even after an officer's retirement.

The establishment of a Department of External Studies as part of the Faculty of Military Studies at RMC is a feasible and worthwhile proposition. When so much stands to be gained by Australia for so little, it would be sad indeed if for any reason this investment was not made. □

OTHER WARS

Why were we born! Just imagine a regiment landing on a desert island without baggage wagons and horses, without tents enough, and without even a tent pin to kindle a fire with! Every day I detail from a quarter to three quarters of my company to collect wood for cooking; and this wood they must bring in on their backs a distance of two, three, and four miles. We have no cook-tent, and no lumber wherewith to build cook-houses, so that I must store all the rations of my company in my own tent. Consequently I am encumbered with boxes of hard-bread, and dispense nutritious perfume of salt pork, salt beef, onions, potatoes, vinegar, sugar and coffee.

—John William De Forest, *A Volunteer's Adventures: A Union Captain's Record of the Civil War.*

Another Meaning to Mobility

Major C. E. Smith

Royal Australian Army Service Corps

IT is becoming quite fashionable to include civilian managerial terms and expressions in the army vocabulary—in an effort to bridge the gap between the civilian world and the army. Perhaps we should also look at the way our fellowmen apply 'Mobility' to 'Labour' and try to bridge the gap there. As many readers will be aware, the expression 'Mobility of Labour' is an Economics expression meaning the change in location or employment of members of the work force—be they unskilled labourers or managers—to meet the needs of the individual, the work force, the industry or the nation.

I would like to apply the idea to the army; to officers in particular. Most readers would agree that, in concept if not in practice, army officers can be equated with the executive and managerial levels of civilian commerce and industry.

The civilian executive or manager starts in a firm which offers him the best combination of his aspirations and his acceptability. Similarly, a young man may be accepted as a junior officer into a particular corps of the army. We can reasonably equate a firm with a corps and an industry with the army. As the civilian gains in knowledge and experience so he may advance in the firm of his choice in the same way as a young officer will advance in his corps. To be fair, we must admit that advancement to a certain level in the army is probably more automatic in most cases, if not as quick in some other cases. The difference comes when we look at the Mobility of officers in the Economics sense.

Major Smith graduated from the Royal Military College in December 1954 and was allotted to the RAASC. He held a number of regimental and corps appointments until attending Staff College, Queenscliff in 1965. From June 1967 to August 1968 he attended an Advanced Transport Course in the United Kingdom. Attachment to British Army units followed until his return to Australia in March 1969. He is presently OC 25 Company RAASC (GT) at Puckapunyal in Victoria.

The army officer and his civilian counterpart can both change industries by quitting their jobs in their present industry. Both can change location but remain in the same firm. However, the civilian can very readily change firms within the same industry whereas the army officer cannot. The civilian can quit his job and find another which suits him better with another firm in the same industry. The army officer cannot do this without stirring a cloud of suspicion and annoyance. The question which arises here is whether or not this is important. This question can perhaps be best answered by looking at the possible reasons for the civilian counterpart wanting to change his firm. It could be because he feels he could make more money in the new job, or because the fringe benefits are attractive; or it may be because he dislikes his old firm now that he is a bit older. He may be growing tired or bored with the work he is doing, or he may even be frustrated by the firm's policies. Whatever the reasons, he feels that he will be happier in the new firm with a new job, a situation which should result in greater efficiency once he has caught up on the details of the new job.

Most of us would agree that interest in the job is the best incentive towards efficiency; far better than the ambition for promotion or desire to keep out of trouble, which become the only spur to the disinterested officer.

When the civilian changes his job he seeks a position in which his knowledge and experience will be of assistance. Indeed, his new firm would not employ him in a responsible position if this were not so. It is quite the accepted practice for executives and managers in the civilian world to change jobs. Many successful firms prefer to have such people on their staff because of the wider experience and understanding they should possess.

We all know of officers who have found good positions in the civilian world. If we consider the possible reasons for their success we find that their previous army experience was a large factor. This applies whether they were relatively young officers or officers going out on retirement. If an army officer's knowledge and experience are considered suitable to fit him for a responsible position in another industry, it seems logical that the very same knowledge and experience should be acceptable to another firm in the same industry.

One obvious objection to the interchange of officers between corps is the matter of specialized knowledge—or lack of it. However, a closer examination of this problem may prove it to be but a small hurdle. No matter which corps we consider, the responsibilities and tasks of a com-

mander, second-in-command, adjutant, quartermaster, re-settlement officer and a host of other extra-regimental duty appointments are very similar. They are all dictated or guided by the same MBIs, AROs, Law Manual, UEIs, Command orders and instructions, and other publications and letters which form common ground. There are of course certain aspects of all these appointments which are peculiar to the particular corps and which can only be mastered by experience, and it would be necessary to have some key appointments filled by officers with the necessary experience. Nevertheless, a fresh approach to an old problem sometimes produces a simpler solution.

Another possible objection to the suggestion is that the officer would no sooner be master of the situation than it would be time for him to be posted. This could be the case for some officers who have no aptitude for the appointment or who are moved after only a few months' service.

If inter-corps transfers, secondments, attachments or postings, whatever you choose to call it, were to become an accepted part of an officer's career, the army could only benefit. The less healthy aspects of inter-corps rivalry and jealousy would decrease as better understanding of the other man's problems increased. My hope is that this thought will develop into a working system one day and bring the army into the modern world in this respect also. □

MAGDHABA

> Royston, [Brigadier-General J. R.] who, as usual, was riding about in the thick of the fight, attended only by his orderly, galloped up to a Turkish trench and was instantly covered by five enemy rifles. The old fighter excitedly raised his cane and, knowing no Turkish, shouted at the riflemen in Zulu; whereupon the Turks, impressed with the demonstration, dropped their rifles and held up their hands. The 10th [*Light Horse*] *Regiment* captured in all 722 prisoners.
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> —H. S. Gullett, *Sinai and Palestine* (1923).

Diamond Jubilee of the Australian General Staff

Major Warren Perry, RL

THIS year marks the sixtieth anniversary of the creation of the Australian General Staff. In 1909 the Australian Government introduced the General Staff system into the central administration of the Department of Defence, then located in Melbourne, and into the headquarters of military districts. These district headquarters were immediately subordinate to the Military Board. The Military Board had preceded the General Staff's introduction by four years and in 1909 it also formed part of the central administration of the Department of Defence[1]. This Board was the Australian counterpart of the Army Council at the War Office in London. The Army Council had come into existence in February 1904; the Military Board was created in January 1905[2].

The General Staff system, as it is known today, has its origins in Prussia. After its disastrous defeat at Jena by Napoleon in October 1806, Prussia saw the need for a staff, the functions of which were to think out the requirements of war, devise a unified system of training, and provide fully-informed advice on any military situation that was likely to confront its government. Although by 1914 the Prussian General Staff had long become a separate organization, it had in its earlier years formed part of the Prussian Ministry of War in Berlin. This ministry was created on 1 March 1809; and one of the divisions of its War Department, at that time, was the General Staff under the direction of Lieutenant General von Boyen.[3]

Later, Prussia's General Staff system was adopted, but in a variety of modified forms, in armies of other nations. Great Britain, forced by defeats in the field during the South African War of 1899-1902 and by administrative inefficiency at the War Office in London, adopted a modified form of the Prussian General Staff system in 1904.[4] Five years later Australia followed Great Britain's example.

Major E. W. O. Perry, RL, MA (Melb), BEc (Syd), FRHSV. Military Historian. Editor of The Victorian Historical Magazine; *Patron of the Military Historical Society of Australia; and contributor to the* Australian Dictionary of Biography, *the United Service Quarterly,* Sydney etc.

The term 'General Staff' in the Australian Army is a technical one. It does not mean the whole staff. Two other branches of the Staff, that of the Adjutant General and that of the Quartermaster General, are much older in the British and Australian armies; they long discharged functions which the General Staffs of these armies took over from them when they came into existence.

Australia's first Chief of the General Staff was Major General Sir William Throsby Bridges (1861-1915)[5], as he later became. He had previously been the Chief of Intelligence since 12 January 1905. On 1 January 1909, when he became Chief of the General Staff, the title of his appointment was in reality changed from that of Chief of Intelligence to Chief of the General Staff; and his rank of colonel remained unchanged. Bridges' Intelligence Staff thus became Australia's original General Staff.[6] But Bridges was only a caretaker Chief of this General Staff, for he relinquished the appointment four months later and proceeded overseas on other duties.

At the time that Bridges became Chief of the General Staff the Inspector General of the Australian Forces, Major General Sir John Charles Hoad, was overseas studying the General Staff system at the War Office in London. The War Office at that time was under the ministerial direction of Viscount Haldane of Cloan, as that Minister later became, and its General Staff had been in operation since February 1904 when Lieutenant General Sir Neville Gerald Lyttelton became the first Chief of the British General Staff. In May 1909 Major General Hoad succeeded Colonel Bridges in the appointment of Chief of the Australian General Staff. An inspection of *The Australian Army List,* dated 30 June 1909, will show that this General Staff was at that time a small one and that it consisted of officers of the Permanent and Citizen Forces.

A proposal to co-ordinate and integrate the work of the General Staff at the War Office in London with the General Staffs of the Dominions overseas had been discussed at the Imperial Conference in London in April 1907. Steps were taken in 1909 to form a General Staff

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[1] The first Minister for the Army, Brigadier Geoffrey Austin Street, MC, was sworn in on 13 November 1939.

[2] See *Commonwealth Gazette,* No. 1, dated 7 January 1905, p.11.

[3] See Lieutenant General von Cockenhausen, *Von Scharnhorst zu Schlieffen 1806-1906.* E. S. Mittler & Son, Berlin, 1933, S.35.

[4] See Victor Wallace Germains, 'The General Staff and the Army'. *The National Review,* London. Vol. 108, No. 650, April 1937, p.439.

[5] See Perry, 'Major General Sir William Throsby Bridges: Fiftieth Anniversary of his Death in the Gallipoli Campaign.' *The Victorian Historical Magazine,* Melbourne. Vol. 36, No. 2, May 1965, pp.121-124.

[6] See Military Order No. 23, dated 19 January 1909.

FIRST MILITARY BOARD AND DIRECTORS MELBOURNE 1905

Standing (left to right) Capt P. N. Buckley (D of Wks), Cmdr S. A. Petheridge (Asst Sec D of D), Col (Hon Surg Gen) W. D. C. Williams (DGMS), F. Savage (D of Stores).

Sitting (left to right) Lt Col H. le Mesurier (C of Ord), Col J. C. Hoad (DAG), Lt Col the Hon J. W. M'Cay (Minister of Defence), Lt Col W. T. Bridges (C of Int), J. A. Thompson (F.M.).

for the British Empire as a whole; one of its objects was to develop an Imperial school of military thought. Each Dominion was to develop its own General Staff which was to function in close co-operation with the General Staff at the War Office in London.[7] On 1 July 1909 Hoad was appointed Chief of the Australian Section of the Imperial General Staff—an appointment he held in addition to his earlier one of Chief of the Australian General Staff.[8]

In a statement on the subject made in the House of Commons, on 26 August 1909, the British Prime Minister, Mr H. H. Asquith, said:

> I may point out that the creation early this year of an Imperial General Staff . . . is a result of the discussions and resolutions of the Conference of 1907. Complete agreement was reached by members of the Sub-Conference, and their conclusions were finally approved by the Main Conference and by the Committee of Imperial Defence, which sat for the purpose under the Presidency of the Prime Minister. The result is a plan for so organizing the forces of the Crown wherever they are that, while preserving the complete autonomy of each Dominion, should the Dominion desire to assist in the defence of the Empire in a real emergency, their forces could be rapidly combined into one homogeneous Imperial Army.

The Chief of the General Staff at the War Office at this time was General Sir William Nicholson.[9] He had succeeded General Lyttelton in this appointment on 2 April 1908. By an Order in Council of 22 November 1909 the title of Nicholson's appointment was changed from that of 'Chief of the (British) General Staff' to that of 'Chief of the Imperial General Staff'. In this way Nicholson became the first of a long line of Chiefs of the Imperial General Staff.

Soon after Hoad took up duty in Australia's new General Staff he had to busy himself with the making of the necessary preparations for the inspection of Australia's military forces by Field Marshal Lord Kitchener. Kitchener had relinquished the appointment of Commander-in-Chief, India on 9 September 1909; the following day King Edward VII promoted him to the rank of Field Marshal in the British Army; and on 21 December 1909 he arrived in Australia at Port Darwin where he was met, on behalf of the Australian Government, by Major General Hoad who had served under his command in the South African War of 1899-1902.

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[7] See Perry, 'The Rise and Development of the General Staff System.' Part 3. *The Australian Army Journal*, No. 6, April-May 1949, pp.54-55.

[8] The duties of the Australian Section of the Imperial General Staff were set out in Military Order No. 320, dated 31 August 1909.

[9] Later Field Marshal Baron Nicholson of Roundhay. Born 2 March 1845. Relinquished the appointment of CIGS on 14 March 1912. Died 13 September 1918.

Kitchener's inspection began at Port Darwin; it extended from there to all States and it ended in Melbourne, which was then the seat of the Australian Government and the location of what came to be known in later years as Army Headquarters. Kitchener sailed from Melbourne on 12 February 1910 for England, via New Zealand and North America. At this time he was one of the British Army's most illustrious figures; and his official visit to Australia an outstanding event in Australia's military calendar between the close of the South African War in 1902 and the opening of the War of 1914-18. Hoad's onerous duties undermined his health in the following year, and in October 1911 he died at the early age of 55.[10]

Just as Bridges is remembered today as the founder of the Royal Military College at Duntroon and as the original commander of the first AIF, so Hoad may be regarded as the real founder of Australia's General Staff although he became in fact its second and not its first chief. From the outset the General Staff in Australia has concerned itself mainly with three closely allied and interwoven functions; namely, the study of the theory and practice of planning and conducting military operations, the collection and evaluation of military intelligence, and the preparation and training of the nation's military forces for war. The Prussian concept, introduced by Gneisenau, that a commander and his principal General Staff Officer became jointly responsible for decisions made[11], was never adopted in the Australian Military Forces. There, the commander alone has always remained responsible. When war came in August 1914 Australia's General Staff, with Colonel (later Lieutenant General) J. G. Legge as its chief, was subjected to its first wartime tests. But that is another story. □

[10] See Perry, 'The Military Life of Major General Sir John Charles Hoad.' *The Victorian Historical Magazine*. Vol. 29, No. 3, August 1959, pp.141-204.

[11] See Walter Görlitz, *Der deutsche Generalstab*. Verlag der Frankfurter Hefte, Frankfurt am Main, n.d. circa 1950, p.57.

The Specialty of Army Health

A Brief Historical Review

Colonel M. M. Lewis,

Late Royal Army Medical Corps

This will doubtless be demonstrated to you by the Professor of Hygiene by examples of the fatal consequences of neglect of the sanitary function in armies and, on the other hand, of benefits which have resulted from its judicious exercise. The exercise of this duty is not to be confined to specially appointed sanitary officers, although, under certain circumstances in armies, Officers of Health are now ordered to be appointed, who will have to devote their whole time and attention to sanitary arrangements; but army medical officers of all grades, each in his respective sphere, are ordered to be sanitary officers in future. (Longmore, 1860).

THIS extract from a lecture in the year 1860 by Deputy Inspector-General T. Longmore, Professor of Military Surgery, Royal Army Medical School, Chatham, is one of the earliest references to the employment of army medical officers as full-time health officers; it is of interest to note that their appointment did not absolve their professional colleagues from routine sanitary duties.

The work done by these early specialists in Army Health was quickly appreciated. The record of a speech made by the Right Honourable Mr

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Colonel Lewis graduated in Medicine at the University of Bristol in 1938 and was commissioned in the RAMC in April 1939. He served as an RMO and in field ambulances in the UK until 1941 when he went to India and, after a spell in military hospitals, commanded Indian field ambulances. After attending Staff College, Quetta, he held various staff appointments including ADMS (Ops) ALFSEA, ADMS Commando Brigade Group in the relief of Hongkong and ADMS Malaya Command. On return to UK in 1946 he specialized in Army Health and later served as DADAH in Austria, Trieste and Malta. His senior Army Health appointments included ADAH, Ministry of Defence, Professor at the Royal Army Medical College and DDAH Army Strategic Command. He graduated M.Sc. in radiation physics and radiation biology in 1962 and, for a time, lectured in the University of London. He became DAH, AHQ Melbourne in May 1968 and returned to the UK last month to command the Army School of Health, Aldershot.
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Sidney Herbert, Secretary of State for War, on the occasion of the opening of the Army Medical School at Fort Pitt in 1860, contains the following:

He (Mr Sidney Herbert) had just been reading a letter from the Adjutant-General with the army in China. It contained the most gratifying accounts of the present excellent condition, as to health, of the China Force, and it showed how much benefit had arisen from the appointment of a sanitary inspector. This was the first time such an appointment had been made. It was one of the new regulations, and was the result of the recommendation of the Royal Commission.

Dr Rutherford, the sanitary officer, was visiting portions of the camp every day, to see that everything was as it should be. (Herbert, 1860.)

The appointment of health officers in the Army was one of the many measures which stemmed from the upsurge of public opinion following the revelation of the appalling sanitary conditions suffered by the British soldier in the Crimea. The role of Florence Nightingale in bringing these conditions to the notice of the public is well known, and the influence she exerted over the members of the Royal Commission which investigated the matter was profound.

This Royal Commission (1857) recommended 'that medical officers should be given the power to advise commanding officers in all matters pertaining to the health of the troops, including the siting of camps, diet, clothing, drill, duties or exercises.'

These recommendations are still closely followed today; para. 22 of Regulations for the Medical Services of the Army, 1954, which deals with the Duties of Medical Officers, reads as follows:

Officers are charged with: The duty of recommending to general and other officers commanding, verbally or in writing, any precautionary or remedial measures relating to stations, garrisons, barracks, hospitals, movements, food, transports, encampments, billets, bivouacs, dress, physical training, drills, duties and all other matters that may, *in their opinion*, conduce to the preservation of the health of the troops.

These recommendations of the Royal Commission of 1857 gave status and prominence to facts which had been made plain more than a century earlier, but which appear to have been practically disregarded.

Sir John Pringle passed on a veritable mine of information in 1752, gleaned while Physician General to the Forces (1742-48), in his book 'Observations on the Diseases of the Army.' He even described the spread of typhus by lice a century before British soldiers were plagued by the disease in the Crimea (Newsholme, 1927). Of this great man it is written:

Sir John Pringle rose to wealth and rank. It has been questioned whether he deserved all he gained, and the wits of the day sneered at him for sitting in 'Newton's chair' as President of the Royal Society. But his services have been re-examined and more amply appreciated, in the present day, by those who hold it their duty not only to cure disease when it comes, but to intercept its approach. When the

advocates of sanitary science—not yet 40 years old—looked back among the writings of physicians to find those instances where the premonitory causes of epidemics and other gregarious forms of disease had been most carefully and skilfully noticed, they found them in the collection made by Sir John Pringle from his experiences as a military surgeon. (Hill Burton).

Sir John Pringle was almost the first of the military surgeons to attempt to systematize the hygiene and diseases of military life, and, had more attention been paid to his work, there is no doubt that thousands of lives would have been saved in later years. In spite of his teaching, the military medical history of the period which followed reveals that the army sugeons of those times were concerned mainly with improving hospitals and methods of collecting and transporting casualties. That this was so is easily understood; the plight of the sick and wounded was so pitiful that it demanded immediate attention and, by contrast, the seemingly less urgent, ill-understood, and somewhat intangible subject of preventing sickness lapsed into obscurity.

However, three military physicians who were striving at that time to improve army hospitals also found time to ponder on the subject of preventing disease and to record their opinions by writing books.

Dr Brocklesby (Physician to the Military Hospital at Pimlico 1758-63) was a particularly prolific writer, and recorded his observations in 'Economical and Medical Observations'. Many military officers of distinction in that day endorsed everything that had been written by this most able physician; General Bland expressed an opinion that the preservation of the health of the men depended so much on attention to the necessaries and cleanliness of the men that 'in those regiments where this method was duly observed, the men were generally healthful, but where it was neglected great numbers fell sick and died' (Gore, 1879).

Dr Donald Munro (Physician to His Majesty's Army and St George's Hospital) contributed 'Diseases of the British Military Hospitals in Germany, 1761-63, and Means of Preserving the Health of Soldiers.' He described, among many other diseases of armies, 'epilepsy due to the severe duty of long marches in the hot weather'; this was, presumably, a description of heat hyperpyrexia.

Inspector-General Robert Jackson (1750-1827) wrote 'Formation, Discipline and Economy of Armies.' This book, which delighted Sir John Moore, advocated the employment of 'health officers' as an important part of an Army, 'as the health of troops is a matter of the greatest importance to success in war.'

But in spite of the writings of these eminent physicians, and even though they were from time to time wholeheartedly endorsed by en-

lightened generals, the sanitary circumstances of the troops improved but little.

It is true that Lord Wellington stimulated his officers regarding the basic facts of environmental hygiene; one of his General Orders read:

Officers of the army were much mistaken if they supposed that their duty was done when they had attended to the drill of their men and to the parade duties of their regiment — the orders and regularity in camp and quarters, and the subsistence and comfort of the soldier being of equal importance.

It is also true that Sir James McGrigor, who was Director-General for 35 years, continuously (1815-51), strove to improve the soldier's living conditions; but he was chiefly remembered for the remarkable way in which he improved the lot of the sick and wounded — 'under the able administration of Sir James McGrigor they (the Army hospitals) were brought to a state of perfection never since observed.'

Despite all this, however, the sanitary circumstances of the soldier went steadily from bad to worse during the aftermath of the Napoleonic Wars. Successive cuts in military expenditure reduced the service to a bare outline. The medical staff themselves had no status or power, and were generally bluntly discouraged when they did try to remedy evils.

Some 20,000 dead in the mud of the Crimea and Scutaris' 'dreary corridors of pain' were the bitter price the country paid for this criminal neglect and parsimony (Lovegrove, 1951).

The public scandal of the Crimea brought speedy action; the Royal Commission of 1857 made its recommendations regarding the sanitary state of troops, Army health officers were appointed and the practice of hygiene was acclaimed the primary duty of the military medical service.

Great attention was then paid to the professional education and training of military medical officers, and it was realized that the civil practitioner could not undertake the duties of military medical officer without special training.

As early as 1808, previous to the disastrous Walcheren expedition, Dr Nisbet had drawn attention to this fact in a letter to His Royal Highness the Duke of York:

The life of the soldier, like every other life of irregular exertion and hardship, predisposed him to disease while, from the nature of the service, the treatment of military diseases differed from common practice, and required peculiar experience, both in preventing the attack and also in rendering their cure speed and complete.... Having it in mind that military practice requires bold and energetic measures; and that the absence from duty on the day of actual service is perhaps an irreparable loss to the country—hence the necessity of a medical officer possessing superior professional knowledge to others, much decision, and a great deal of acquired experience. (Gore, 1879.)

This theme was elaborated by Deputy Inspector-General T. Longmore, Professor of Military Surgery, in an introductory address on the occasion of the opening of the Army Medical School at Fort Pitt on 2 October, 1860, when he said:

> Students have been told that after passing the normal examinations they must submit to be sent back again to school, if they wish to obtain appointments in the army. But it is not right to say *back again*, it should be *forward*, if regard is paid to the future pursuits of the person most interested.... But in military practice, the case is altogether different; the knowledge has really not been acquired which is necessary to fit the probationer for it. His studies have all tended towards the prime object of the great bulk of British practitioners — the *cure* of disease.... But the cure of disease, though an important part of the complex duties of an army surgeon, is by no means his chief duty; and this will be readily understood on recollecting that he is usually placed in medical charge of a body of men in the prime of life and sound constitution, and that he best performs his functions, in the eyes of the State, who has the least disease to treat, who keeps his men in the most efficient state of health. (Longmore, 1860.)

It remained for the great Professor Edmund Parkes to teach according to this policy; he was appointed the first Professor of Hygiene at the Army Medical School.

The School was indeed fortunate in having the services of such a man at its command and on its formation. For in addition to the scientific and practical value of his work, he was a great teacher and by the power of his personality exercised a far-reaching influence on the band of followers trained under him when the general teaching of hygiene was in its infancy. In 1842 he joined the Army and went as an Assistant Surgeon with the 84th Regiment to India and Burma. He was a brilliant and hard-working man who utilized his Army experience to the full; two of his papers, one on 'Dysentery and Hepatitis,' the other on 'Cholera' have been acclaimed among the most remarkable in medical literature.

He retired from the Army in 1845, and was appointed Professor of Clinical Medicine at University College, and Physician to University College Hospital, in 1849, posts which he held until he became Professor of Hygiene at the Army Medical School (Walker, 1930).

When Edmund Parkes died in 1876, the German Field Marshal von Moltke said of him: 'Every regiment in Europe ought to parade on the day of his funeral and lower their standards in honour of one of the greatest friends a soldier ever had.'

With the establishment of the Army Medical School came the realization that the practice of military hygiene was a specialty in its own right and that it involved the practical application of several academic disciplines. Deputy Inspector-General Longmore had this to say:

The preservation of health, whether as applied to individuals or, especially to communities of men, is now acknowledged to be by no means a matter of such common and ready attainment, but a science requiring deep and special study; a science demanding acquaintance, not only with all the varied functions of the human frame, but also necessitating a knowledge of the physical laws which influence those external operations of nature with which our existence is so inseparably associated. (Longmore, 1860.)

Twenty-six years later the Medical Act (1886) was passed. This Act gave official recognition to the Diploma in Public Health; the General Medical Council later confirmed the specialist status of the holder in the following terms, being an extract of its Rules:

All, therefore, that the Rules purport to do is, as has been indicated in paragraph 3 of this Introduction, to give due weight to the intentions of Parliament in enacting that registrable Diplomas and Degrees in Public Health should indicate a *special degree of proficiency*, should be granted after a *special examination*, and should, when registered, *confer special privileges on their holders*. . . .

The sanitary reforms which were taking place in the Army in the second half of the 19th century were accompanied by efforts on the part of all concerned to improve the organization of the Medical Service itself. This organization was an illogical and ill-knit affair. The Army Medical Department was a corps of medical officers without other ranks, and the Army Hospital Corps was a corps of other ranks without medical officers.

In 1884 an effort of unification was made; the AHC other ranks were reverted to their old title 'Medical Staff Corps,' and the AMD Medical Officers were designated 'Army Medical Staff' and given command over the other ranks. This attempt at unification fell far short of the actual requirement, particularly as it denied full military status to medical officers who were soon even deprived of their relative ranks. In such circumstances the insistence upon proper hygiene standards by medical officers was almost impossible. Despite the general enlightenment brought about by the recommendations of the Royal Commission and by the teachings of the recently established Army Medical School, the status and power of medical officers was quite insufficient to enable them to influence effectively commanders and staff officers upon whom executive action depended.

In short, as far as improved hygiene was concerned, the Army Medical Staff had nothing but knowledge; it had neither the power, the money nor the materials to put this knowledge to good effect.

But a great event was shortly to take place, namely the creation of the Royal Army Medical Corps. A unified Corps of medical personnel having ordinary military ranks and titles, members of which would be able to deal with personnel of other Corps and Regiments on level terms;

a situation of paramount importance in the general furtherance of hygiene knowledge, and one which would greatly facilitate the procedure whereby the acceptance of medical advice might be ensured.

The first public reference to the impending creation of the new Corps was made on 4 May 1898, by Lord Lansdowne, at a banquet given at the Guildhall in honour of the medical profession, in which he said 'Her Majesty, upon whose goodwill towards your profession I need not dwell, has been pleased to signify her intention of bestowing upon the newly formed Corps the title of the Royal Army Medical Corps, a title which I am sure it will wear worthily' (Lovegrove, 1951).

On 23 June 1898, a Royal Warrant of Queen Victoria united the Medical Staff (up to the rank of Surgeon-Colonel) and the Medical Staff Corps, with ordinary ranks and titles throughout.

Although this great event represented the victorious culmination of a long struggle for recognition, prestige and satisfactory terms of service in respect of medical personnel, prospects of victory in the struggle for better sanitary conditions were actually receding.

Memories of the insanitary horrors of the Crimea were growing dim in the minds of the laymen, and the teaching of Pringle, Parkes, and Longmore were being overlooked by those combatant officers who should have put them into effect.

> From the medical point of view, the main lesson the British Army learned from the South African War was that of the vital importance of hygiene and sanitation. . . . But sanitation until then had been considered just a fad. *The post of the Sanitary Officer had been abolished against medical advice;* the combatant officer took little interest in matters affecting the health of his men; the troops were not taught the elementary laws of personal hygiene; there was a great scarcity of facilities for the purification of water supplies; the camp cleanliness left much to be desired. (Lovegrove, 1951.)

The Royal Commission of 1901 which investigated the medical aspects of the South African War concluded 'All witnesses of experience of other wars are practically unanimous in the view that, taking it all in all, in no campaign have the sick and wounded been so well looked after as they have been in this.'

But the newly formed Corps had been set a tremendous task, so soon after its birth and internal difficulties, with its units overworked and undermanned; it had to cope with 74,000 cases of enteric and dysentery alone — compared with 22,000 battle casualties, injuries and accidents. It would not have been so overworked if the standard of hygiene in the Army had been in keeping with the state of medical knowledge of the times and with the bitter experiences of previous wars; the RAMC was

burdened, in its work of caring for the wounded, by overwhelming numbers of sick men who were mainly the casualties of ignorance and carelessness.

Surgeon-General Jameson said in his evidence to the Royal Commission: 'If sanitation had been understood not alone by our officers but by the rank and file, by the regimental officers and by commanding officers, I think it would have saved thousands of lives' (Richmond, 1948).

In 1902, an RAMC officer was despatched by the War Office to South Africa to report on the health of our troops there; an extract from his report is as follows:

> Military sanitary organization in South Africa is based on the existing regulations by which the Principal or Senior Medical Officer of a district or station is the responsible sanitary adviser, of the General or other officer commanding. The senior medical officer has been, as a rule, the officer in charge of a large hospital, and sanitation has been more an act of inspection than one of organization and administration.... The appointment of one or more specially qualified sanitary officers, who can devote their whole time, under the Principal Medical Officer, to the sanitary organization of cantonments and standing camps is essential. (Macpherson, 1902.)

How disappointed the Right Honourable Sidney Herbert would have been to hear that evidence; for in 1860, on the occasion of the opening of the Army Medical School at Fort Pitt, the recorder of his speech wrote as follows:

> He (Mr Herbert) was assured that not only had his appointment of a medical officer charged especially with the sanitary supervision of the Army had the best effect directly, but that it had also indirectly acted in a remarkable way, by rousing not only the regimental medical officers, but the combatant officers to pay increased attention to hygienic measures. He believed that no men now were more anxious to enforce sanitary measures for those under their command than the military officers. It had been anticipated that such would be the result. (Herbert, 1860.)

This was the great sanitary lesson of the Crimean War; it was also the great sanitary lesson of the South African War; in addition, it had to be relearned in World War I.

It was even the great sanitary lesson of World War II, of which the Medical Director-General of the Royal Navy wrote as follows:

> The most important medical lesson learned in this war is that executive and combatant officers must be taught that the enforcement of hygiene measures to preserve the health, morale and fighting efficiency of their troops is as important as any other military duty.... No one admires more than I the efficiency of the equipment and the medical organization which the Army doctors have devised to prevent the field diseases which have wrought such havoc in former wars. Yet the same diseases become almost as great a menace in the early years of the Japanese war, because the combatant officers had not been properly taught the value of applied hygiene as a factor in the success of military operations. In this

respect the final success of the RAMC in replacing the combatant officers' early indifference and apathy and gaining their enthusiastic support for hygiene is to me the most remarkable achievement in the history of military hygiene. (Dudley, 1947.)

This repetition of history regarding the health knowledge, and enthusiasm for practical hygiene, of regimental and staff officers merits very serious attention. The familiar cliche, 'History teaches us that we do not learn from history' is particularly apt in this context.

It is evident that, between wars, the whole subject of hygiene in the Army tends to be forced into the background. For this there are several reasons, chief of which the apparent and comparative lack in peace-time of manpower losses due to preventable medical causes. In these circumstances the subject of hygiene gradually ceases to occupy the minds of those who are not specialists in its practice; commanders and staff officers are no longer beset by hygiene problems causing them urgently to seek specialist advice. Insidiously, the status of the subject declines as does the status of its specialist practitioners.

Just as a war, disastrous from the health viewpoint, followed by a Royal Commission, brought about the sanitary reforms in the latter part of the 19th century, so another war, and yet another Royal Commission, was needed to bring about further reforms in the early part of the 20th century. There was no Florence Nightingale to champion these later reforms. Instead, there appeared on the scene several prominent RAMC officers dedicated to the first duty of their Corps, namely to promote and maintain the health of the troops; a review of their main achievements during the first 50 years of the Royal Army Medical Corps is given in the Golden Jubilee Number of the *Journal of the R.A.M.C.* (Richmond, 1948).

Health recommendations invariably involve the provision of additional money, materials and often manpower. Not uncommonly in the lay mind, such additional provision is unjustifiable except when there is either a patently obvious increase of disease incidence to be overcome, or an approach of circumstances pregnant with the elements of public scandal to be intercepted. This point was stressed by the RAMC medical officer who was allotted the task of reporting on the sanitary circumstances of our troops in South Africa in 1902. In his report he wrote:

But the main conclusion which I arrived at with regard to military sanitary administration was that its efficiency was greatly hampered by financial considerations, and by an inadequate appreciation of some of the more important health problems, on the part of those officers outside the Royal Army Medical Corps who had a voice in determining expenditure. (Macpherson, 1902.)

As memories of wars speedily grow dim, for it is characteristic of man's psychology that things unpleasant are the first forgotten, the numbers of serving personnel who learned their sanitary lessons by personal and perhaps bitter experience steadily diminishes. Their places are taken by those who must learn from the experiences of their predecessors; unless the status of the subject is kept high in their eyes they will, amid the warlike and novel skills they are called upon to master, regard it as 'just a fad.' In such a way the lessons so hardly learned in war, often at great cost, are forgotten in peace, and in the next war the casualties from preventable disease rise to proportions quite out of keeping with the state of medical knowledge of the times.

Richmond (1948) has already drawn attention to the progress of military hygiene in the period between the two world wars. In this period a large amount of original research was performed by army hygiene specialists particularly at the Army School of Hygiene and at the Royal Army Medical College.

The practical application of this work was of great value in World War II; but despite this, and despite the elaboration during that war of new techniques, such as the chemoprophylaxis of malaria, the main problem was, as it always had been, that of translating technical knowledge into effective hygiene action.

In writing on the medical lessons learned in World War II, a Consultant Physician to the Army had this to say:

> It is my opinion that the Army Medical Service requires to be more preoccupied with prevention than it is at present. This means that a much higher proportion of personnel should be allocated to whole-time hygiene duties. It always struck me as absurd that we had about 5% of our personnel engaged in prevention and most of the rest occupied in curing diseases which need not have occurred had known knowledge been fully applied. Hygiene is a matter of constant education and detailed supervision. It cannot be done effectively by a handful of officers and men. Any personnel given up to the hygiene side by hospitals and other curative units do not represent loss to those units because the diminished incidence of diseases will result in much less work for them. One medical officer engaged in hygiene can save the work of 10 medical officers in hospitals . . . (Marriott, 1946.)

In the period which has followed World War II, Army health specialists have continued their endeavours to enhance the health and efficiency of the soldier by the practical application of new knowledge.

Their investigations have led them into many different fields of study; they have accompanied jungle patrols in Malaya and scientific expeditions to Antarctica; rocket fuels, mental health, new insecticides, acclimatization, radiation hazards, hospital design, and industrial work studies have,

among other things, claimed their attention. There is, however, a pressing need to ensure that the practical application of old knowledge is not overlooked; recent military medical experience has warned us not to be complacent regarding this.

In recent years the international scene has been dominated by the subjects of nuclear warfare.

This subject draws our attention to radiation hazards which are, to quote the words Longmore used in 1860, merely an addition to 'those external operations of nature with which our existence is so inseparably associated.'

Although it behoves medical officers of health, both military and civilian, to possess expert knowledge regarding protection against radiation hazards, this must not be allowed to overshadow the fact that the catastrophe of a nuclear war will bring far greater hygiene problems of a nature perfectly familiar to us all — the old problems of practical sanitation and disease prevention in populations living amid great material destruction. In combating these hazards, civilian medical officers of health and service health specialists will need to work more closely together than ever before; each will have important contributions to make to the common cause from their respective specialist fields.

Just as the status of the subject of hygiene in the Army has tended to decline in times of peace, a similar public spirit of *laissez faire* is apt to affect insidiously the status of the civilian Public Health Service in times of security and prosperity. At such times, when there is nothing obviously detrimental to health upon which public opinion can be focused, the role of its Public Health Service in *creating* this state of affairs is slowly forgotten; moreover, the fact that this state of affairs is *maintained* only by the constant vigilance of the Public Health Services is comprehended by only an enlightened minority.

It is in these rather unco-operative circumstances in times of peace, security and prosperity that health specialists, both civilian and Service, must work to prepare their respective communities for whatever the future may hold. Hence the status of the specialty must be kept high; upon this largely depends the prevention of avoidable wastage of Service manpower and the health, perhaps even the very survival, of whole sections of the civilian community.

War has now forced the lesson home, and it may seem rather late in the day for a sermon of this sort, when the majority of medical and other officers have learnt by bitter experience during the past six years the value of applied hygiene; now that habitability and personnel research is encouraged, and field hygiene and safety measures are demonstrated to combatant officers in schools

established for this purpose. Nevertheless, there is a great danger that the sudden relaxation of tension, which follows the end of hostilities, may cause us to drift back to the old *laissez faire* attitude, so hard to avoid in piping times of peace . . . (Dudley, 1947.) □

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CAMPS

From the evidence given it seems that there is a little too much entertaining and what may almost be called luxurious living in camp, which is quite out of place in modern soldiering—pianos in mess tents, with, in some cases, wooden floors and carpets in officers' tents, are mentioned. Now, an officer who requires such comforts may truly be styled a feather-bed soldier, and his services might certainly be dispensed with. If officers cannot set a proper example to their men, and be satisfied with the simple kits of professional soldiers, they had better retire at once. . . .

— Extract from page 19 of 'Report of the Royal Commission Appointed to Inquire into the Military Service of New South Wales', appointed 10 June 1892.

REVIEWS

LAOS—BUFFER STATE OR BATTLEGROUND, by Hugh Toye. (Oxford University Press, 1968, $6.30).

Reviewed by Major P. H. Roberts, a candidate at the Australian Staff College, Queenscliff in 1969. Other reviews included are by fellow officers attending the Staff College during this year.

MUCH of Hugh Toye's regular service in the British Army has been spent in South and South-East Asia, including Thailand and, during the period 1960-62, in Laos where he was in close contact with political and military developments. This work on Laos originated during the author's service in that country and was completed after further historical research in Paris and at Oxford where he undertook a Research Fellowship at Nuffield College. Previous work includes *The Springing Tiger,* an account of the Indian National Army, published in 1959.

Hugh Toye describes the problems of Laos from the ancient South-East Asian conflicts through the period of French colonization, the Second World War, the Indo-Chinese War, to its most recent phase. There is comprehensive treatment of such factors as ethnic grouping, Thai foreign policy, Vietnamese ambitions, the influence of communism, the post-war Lao nationalist movement, the Pathet Lao rebellion and the Geneva Conferences of 1954 and 1962, and subsequent attempts to achieve national integration in Laos.

The problems of Laos have been very much overshadowed by recent events in Vietnam but the solution of the Laotian problems will have a significant effect on future settlements in this part of Asia. The author describes the ancient conflict between the Chinese influenced Vietnamese and the Indian influenced peoples west of the Annamitic chain: a search for living space on the one hand and a fear of conquest on the other. This conflict produced a buffer region from the Mekong River eastwards to the highlands of the Annamite hills, with the inhabitants of this region acknowledging a dual suzerainty to east and west. Later external influences by the French and Japanese disturbed the accepted boundaries and imposed borders which took little account of ethnic distribution, serving to re-awaken ancient hostilities. To the traditional opposition was added the modern conflict of Communism and the West. Hugh Toye offers some penetrating criticism of American actions in

Indo-China against which the present Vietnamese involvement can be usefully studied.

This book is well organized and the author's style makes for both useful and pleasant reading. In itself, the introduction is a useful summary of the Laos problem. There is a comprehensive index and bibliography and the appendices provide interesting background on French colonial policy for Indo-China. Maps are monotone, rather too small and do not fold out. At least one modern fold-out map of the region would be a useful aid to reading.

Laos-Buffer State or Battleground is a book to be recommended to Australians, particularly to those of military calling, as a source of useful knowledge on the problems of South-East Asia. □

THE DEFENDERS, by GEOFFREY COUSINS. (Frederick Muller, 1968, $5.30).

Reviewed by Major C. J. Mayhew.

A STUDY of history can be helpful in understanding the motives which prompt men to certain courses of action today. Unfortunately the facts of history can frequently be bent to suit the particular view of the proponent.

In this history of the British volunteers Geoffrey Cousins has, perhaps unwittingly, fallen into the error of bending history to highlight his view that so long as British freedom exists there will be men ready to defend it.

Whilst not denying the author's assertion I find it difficult to agree that there is a parallel between the motives of the Saxons defending their homes against the Danes and the British army fighting the Boers. Surely if there is a parallel here it is that the Saxons could be likened to the Boers.

Again the author would have us believe that there was only a degree of difference in the motives of the Iceni fighting against the Roman invaders in A.D. 61 and in the motives of the labourers and shopkeepers who rushed to enlist in A.D. 1914. Was the initial rush of volunteers in 1914 really the result of a desire to preserve British freedom or was it the result of mass hysteria cunningly provoked by glib-tongued politicians? Perhaps the fact that subsequently men had to be conscripted to defend their 'homes and hearths' provides the answer. Defence of home and freedom is too often the excuse, not the reason, for war.

Whether the reader agrees or disagrees with the author, *The Defenders* provides a useful insight to a colourful and interesting facet of British history.

The author begins his chronicle at the time of the Roman invasion and portrays the fortunes of the citizen soldier during the subsequent 2,000 years up to the reorganization of the Territorial Army in 1967. The efforts of the volunteer, often faced with official opposition and neglect, and only occasionally rewarded with praise, are presented in a coherent and engaging manner.

The value of the book as a reference is enhanced by the inclusion of a comprehensive bibliography, a list of statutes concerning volunteers, a chronology and an index.

The author has presented a well documented account of the subject, obviously the result of a thorough enquiry. Military traditionalists and historians will find much of interest in this book. □

FIRE AND MOVEMENT, by Jac Weller. (Thomas Y. Crowell Company, 1967, $9.35).

Reviewed by Major J. B. Healy

SINCE the end of the Second World War most conflicts in Asia have taken the form of revolutionary war. This has led in the last decade to a spate of books dealing with all aspects of revolutionary warfare — strategic, tactical, political, economic and social. Unfortunately the complexity of these situations makes a simple accounting difficult. Even such experienced observers as Denis Warner and Bernard Fall find difficulty in offering positive solutions to the problems. Their accounts of Western mistakes in the area, in a style more in sorrow than in anger, make depressing reading.

Jac Weller's book offers a more optimistic view. His observations derive largely from a fourteen-week tour of Eastern Asia and Australasia made by the author in 1966. He sets out to describe the weapons, organizations and tactics of the Western-aligned nations of the area. In addition he gives the broad background to the situation in the area, a brief summary of the campaigns against the Huks in the Philippines, the Communists in Malaya and the Indonesians in Borneo, and a more detailed description of the French War in Indo-China and the present fighting in South Vietnam.

The final chapters offer comments and predictions on likely developments in weapons and tactics, and conclude with a recommendation, based largely on the 'Domino' theory, that America should continue her efforts to contain Communism on the mainland of Asia.

The historical background is of necessity brief. Weller lists the main lessons of the various campaigns in the area but takes too little account of the very different conditions that applied to each.

In discussing weapons the author is on happier ground. Weller is an acknowledged expert on small arms and has contributed many articles on this subject to military publications. He describes in detail the various weapons authorized in the infantry battalion establishments of nations in the area, and assesses their suitability for their likely tasks. Particularly noteworthy are the comparisons of the various light machine guns, the discussion of the 5.56-mm weapons systems and the evaluation of the three main types of ammunition in current use — 5.56-mm, Russian Intermediate 7.62-mm and NATO 7.62-mm. Australian readers will be interested in the very high rating given to the Owen Machine Carbine (but not to its successor, the F1).

Of less value are the discussions of squad, platoon and company organizations in the different armies. These are described in detail in the text and also listed comprehensively in statistical tables at the end. The Australian organization is shown as the pentropic four platoon, four section company, although this organization had changed at the time of writing. The tactics ascribed to the various armies appear in some cases to be more a statement of doctrine than a realistic assessment of capabilities.

The book is well illustrated with photographs and has an index, bibliography and detailed table showing organizations, weapons of all kinds and ammunition by countries. The two maps, of South-East Asia and South Vietnam, show insufficient detail and are not scaled. A number of errors and misprints and considerable repetition indicate hasty preparation and poor editing.

Despite this, and the generally uncritical tone, the author does achieve his aim. The book is recommended to the army reader for its discussion of weapons systems and for the occasional sharp observation or comparison hidden within the uncritical mass. □

THE END OF SUKARNO, by JOHN HUGHES. (Angus and Robertson, 1968, $4.95).

Reviewed by Major P. G. Wilkins.

THE murder of six top generals of the Indonesian Army was a bloody prelude to the abortive communist coup attempt of 30 September 1965. This prelude was to trigger a climactic finale, in which hundreds of

thousands of communists and alleged communists lost their lives, and which ultimately led to the deposing of the 'lifetime President' and 'national hero,' Sukarno.

John Hughes, a reporter for the *Christian Science Monitor,* was one of the first of the few foreign newspaper correspondents allowed into Indonesia, just three days after the murder of the generals, and this book is a reorganization and expansion of his news dispatches sent during the subsequent crisis.

The book has been organized into three chronological parts; the coup itself, the purge of the communists, and the fall of Sukarno. The descriptions within each part of the book follow closely the actual sequence of events, and an air of authenticity is created by means of eyewitness accounts, interviews, and detailed evaluation of the evidence used to sort out probable facts from the many wild and exaggerated rumours circulating at the time.

The journalistic approach is very evident in this book, which is most interesting and even exciting to read. However, students of Indonesian politics will find some parts of the book disappointing and superficial. The emphasis is on the spectacular and newsworthy aspects of the crisis, obviously as a direct result of the need to interest and attract readers of the *Christian Science Monitor.* For example, the long drawn out story to determine whether or not the generals were castrated, would no doubt have increased newspaper sales considerably, but is in poor taste in a serious evaluation. It should only have been necessary to illustrate how these rumours increased the violence and extent of the subsequent reprisals.

The treatment of the final part of the book — the fall of Sukarno — is more restrained, and the book is better because of it. Mr Hughes reveals a good understanding of the complex world of Asian politics, and the Indonesian way of doing things, with the result that this section of the book is well worth reading, even by the most serious of students.

Probably the most interesting section of the book is the assessment of the importance of America's passive role in the suppression of the communists. This was an exclusively nationalist campaign, carried to a successful conclusion without foreign intervention, and without relation to world events outside Indonesia. The anti-communist campaign succeeded, not in spite of American non-intervention, but because of it. As such, it negates President Johnson's oft repeated claim that American involvement in Vietnam was the key to success in Indonesia, and gives a clear warning that military or political intervention by the Western

nations is not always the best means of combating communist insurgency, particularly when nationalism is a strong force within a country. If only to ensure that this point is not forgotten, this book is recommended to Australian Army officers, and indeed, to all Australian politicians. □

THE MODERN HISTORY OF CHINA, by HENRY MCALEAVY. (Weidenfeld and Nicholson, 1967, $6.65).

Reviewed by Major J. F. Hughes.

ON 7 April 1840 Britain was at war with China. The most erudite member of the British Government, Thomas Babington Macaulay, then Secretary of War, said in the British Parliament:

'What does anybody here know of China? Even those Europeans who have been in that empire are almost as ignorant as the rest of us. Everything is covered by a veil, through which a glimpse of what is within may occasionally be caught, a glimpse just sufficient to set the imagination at work and more likely to mislead than inform.'

The truth of this statement has not diminished over the years. If anything the outsider's understanding of China is likely to have been further confused by the purpose and meaning of the propaganda outpourings of the present Communist government. The author aims to give the reader as broad an understanding of current events in China as is possible in a book of such short length, considering the enormous scope of the material involved.

The book is more than a history; the author considers that the history of China is meaningless without knowledge of the cultural and social values which pervade every facet of Chinese life and affairs. This approach pays handsome dividends in terms of reader interest and the sections on the relationships of the various Chinese religions are particularly fascinating. For example, Mao Tsetung has much to thank the leaders of the Taiping rebellion for — their perverse Christian ideas did much to pave the way for later Communism.

The starting point is 1840 with the Manchu dynasty in its final decline. The collapse of the Manchus in 1911 and the description of the chaos which follows is the highlight of the book. The turmoil of warlords, Nationalists and Communists, is presented with a clarity which is rarely seen in descriptions of recent Chinese history. For once one can read an uncluttered and unemotional account of the rise of Chairman Mao and his 'long march' associates. The book concludes in 1967 and

fortunately there is no attempt to cram the end with masses of topical comment. The pace is kept constant throughout and the reader has the opportunity to keep his own counsel regarding the future of China.

The author lived in China for many years and he is at present Reader in Oriental Laws at the University of London. The publishers state that he has based the book almost entirely on Chinese sources. The tone of the book throughout suggests just this. He is pleasingly detached but in firm command of the realities and meaning of the turbulent history which he describes.

The style is easy to read and in no way stuffy. For those who want to know, or who should know, about the essential background to current events in China this is a valuable book. It is highly recommended. □

HITLER'S LAST GAMBLE, by Jacques Nobecourt. (Chatto and Windus, 1967, $7.40).

Reviewed by Major J. D. Harverson.

IN mid-August 1944 the Allied conquest of Europe halted temporarily and during the months that followed Hitler planned the fateful Ardennes offensive which culminated in the 'Battle of the Bulge' in December 1944. The author clearly states the purpose of his book in the last lines of his introduction where he writes; 'The problem is this: was Europe really on the verge of catastrophe in December 1944? This is the question to which this book will attempt to provide an answer.'

M. Nobecourt attempts to answer this question by describing in great detail the political and military events which took place before the battle, the events of the battle itself, and the effect the result had on the famous Yalta Conference in February 1945. The first four chapters are devoted to an account of Hitler's reasons for launching the offensive, the struggle for individual power amongst the German generals and the effect of the attempt on Hitler's life in July 1944. The next five chapters deal with the problems which faced the Allies during the autumn of 1944. Roosevelt was not interested in the military aspects of the war, Eisenhower was not given any clear direction for his future actions and, says the author, 'the British and Americans seemed to be so preoccupied with their disagreements that they had forgotten that the war must be finished before they could turn their thoughts to peace.'

The remainder of the book (146 pages) is devoted to the battle, and the final chapter gives an appreciation of its effects on the Allies' bargaining power at the Yalta Conference. Again M. Nobecourt becomes involved

in great detail when describing certain aspects of the offensive. He goes to some length to discredit famous legends which were born during the fighting by quoting German military documents and interviews he had with the German officers involved in these legends.

The writer has an easy style and his publishers have produced an adequately illustrated volume. It contains photographs, several well drawn maps and is supported by a detailed bibliography and index. However, I feel that the author's passion for detail tends to lead to incoherence in his narrative, which results in a feeling of frustration. The background to the offensive is very interesting but as an Army officer I was looking for more comment and analysis of the military aspects. When battle was finally joined in chapter ten it was difficult to follow events because the maps are included in the body of the book. Fold out maps at the back of the book would have been more helpful.

This book is recommended for the Army reader who is interested in the detailed political events associated with the Ardennes offensive. As a military history study, the study of the past application of the Principles of War for future use, it is disappointing. □