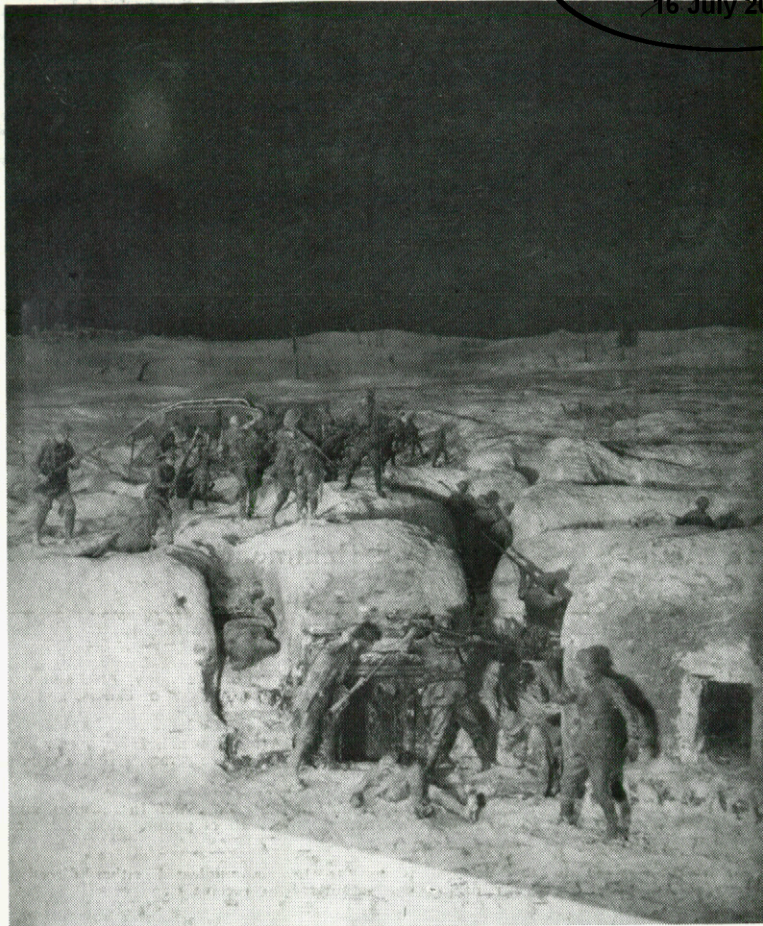


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COVER: Detail from the diorama 'Bullecourt 1917', at the Australian War Memorial.

ARMY JOURNAL

A periodical review of military literature

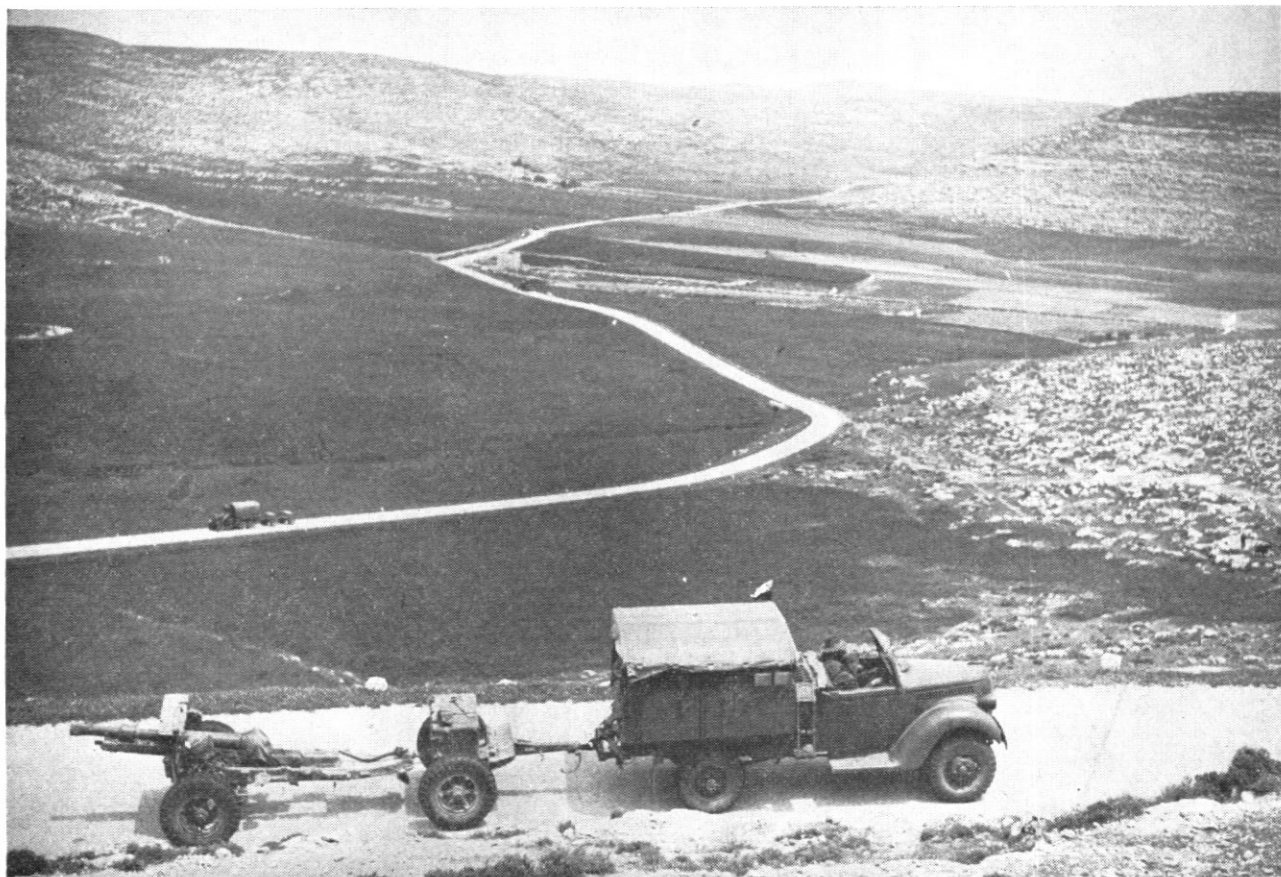
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Guns of the 2/1st Field Regiment near Hebron, Palestine, April 1940.

(Australian War Memorial)



RAE and Northern Territory Development

*Major D. R. Simpkins
Royal Australian Engineers*

INTRODUCTION

SINCE December 1963, the Army has provided a small unit, the District Engineers Office RAE, to the Papua New Guinea Administration. The role of this unit has been to carry out the complete Public Works function in a District, whilst under the technical control of the Department of Public Works, an Administration department. The District Engineers Office RAE, with a strength of four officers and 20 other ranks, has proved extremely useful in its eight years in Popondetta and Mendi, both to the Papua New Guinea Administration and to the Army. The Administration has benefited from a supply of engineers and supervisors whom it has not had to recruit or pay, and it has been saved consulting engineers supervisory fees on the major contracts in the Districts concerned.¹ The Army has benefited because RAE personnel have gained experience in tropical engineering and satisfaction has been obtained from assisting in the development of the country. A not unimportant aspect has been that professional engineering standards within the Army have been compared with, and found comparable to, those existing in civilian organizations. It is to be hoped that this unit will continue to assist the Administration over and beyond

Major Simpkins graduated from the Royal Military College, Duntroon in 1963 and was allotted to RAE. After attendance at the South Australian Institute of Technology he graduated Bachelor of Technology (Civil Engineering) in 1965. He served with 17 Construction Squadron from January 1966 to April 1967, including service in South Vietnam, from April 1966 to April 1967. After service with 7 Field Squadron in 1967 he was posted to the District Engineers Office at Popondetta in Papua New Guinea where he served until 1969. He attended the Division 1 course at the Royal Military College of Science, Shrivenham in 1970 and on his return to Australia was posted to the Directorate of Equipment at Army Headquarters Melbourne. He was Chief Engineer, Tasmania Command in 1971-72 and is currently OC 21 Construction Squadron at Puckapunyal. Major Simpkins became a Member of the Institute of Engineers (Aust) in March 1970.

the difficult independence period expected in the near future. With the withdrawal from South Vietnam, and the uncertainty over the Australian presence in Singapore, Papua New Guinea may well become the main centre of professional engineering interest to RAE. To ensure continuing diversification of engineering experience, and to cater for the need for professional experience for as many qualified engineer officers as possible, consideration should now be given to employment in another location.

AIM

The aim of this paper is to focus attention on the proposed use of RAE on development projects in the Northern Territory.

BACKGROUND

The northern half of Australia (taken as that above 26°S) has in the past two decades, assumed a position of major importance to the entire nation. A succession of mineral discoveries and developments has made Australia one of the most favourably situated nations in the world in respect of natural resources for industrial development. Important advances in rural technology (e.g., emphasis on pasture improvement by establishment of legumes, the principal species being Townsville Stylo; comparison of cattle breeds [Shorthorn, Brahman, Crossbreeds] in breeding and grazing trials to determine the most suitable breeds, etc) with an increasing world meat market, have complemented the mineral boom by firmly establishing the cattle industry in the north.

The strategic value of the north is now more important than ever to Australia because of its present wealth, and the immense potential for the future. The Army must take greater interest in this area by gaining expertise in working and living conditions. For too long, but with justification, the Army has concentrated on antiguerrilla warfare in a South-East Asian jungle setting at the expense of other terrains. A whole generation of Army officers and men have no working experience in other than coastline Australian or jungle areas. The strategic importance of the North must indicate that the Army should turn an increasing attention to this area.

One form of interest is to provide assistance in the development that is occurring. A quote from the Presidential Address of the Institution of Engineers, 25 March 1971, is relevant:

¹ For detail on one road contract under RAE supervision, see *E-in-C Liaison Letter No. 70* of 1 August 1970: 'Report on the Construction of Awala-Kumusi River Section of the Popondetta to Kokoda Road' by Capt. D. R. Simpkins.

'For Engineers it (Northern Development) is important because:

- The development is based largely on major engineering works, and
- The highly integrated undertakings involving establishment of ports, highways, roads, water supplies and mining operations are good examples of co-ordinated activities in which Engineers must participate, and preferably lead, in the future.²

This paper will now be restricted to the Northern Territory, as a specific area of the northern half of Australia.

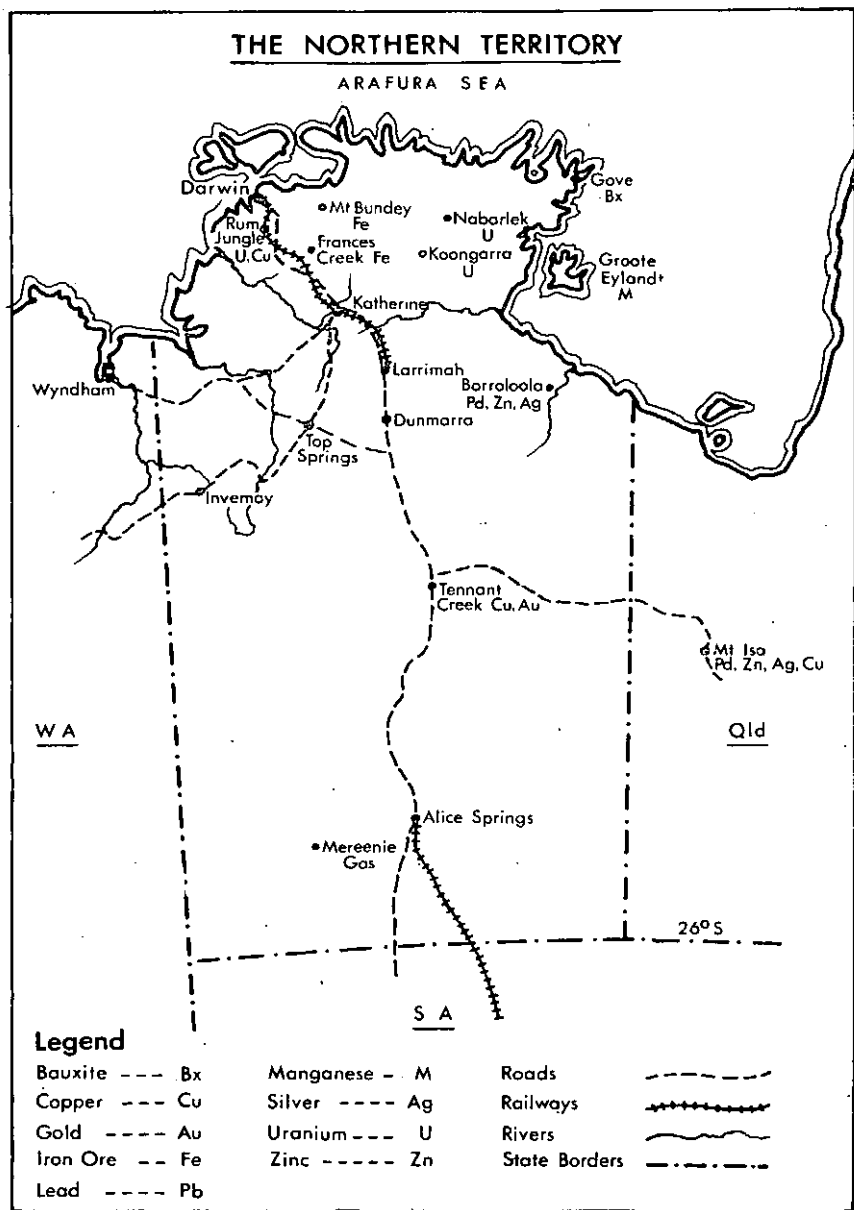
THE NORTHERN TERRITORY

The Northern Territory (see map) has an area of 520,280 square miles, with a population of 64,000 persons as at 31 Dec 68. It lies within the Torrid Zone, with the exception of a strip about 180 miles wide which lies south of the Tropic of Capricorn. There are two main seasons — the Wet from November to April, and the Dry from May to October. Rainfall is comparatively low and decreases as one moves inland — daily temperatures are relatively high.

Attempts to develop northern Australia began with military establishments at Melville Bay, Raffles Bay and Port Essington between 1820-1840. Some mineral discoveries were made last century, but they were insufficient to sustain activity. Pastoral development commenced in the 1840s, but suffered from the climate, remoteness and fluctuating market patterns. Development remained on a low key, except for military interest in World War II, until the 1950s, when bauxite was discovered at Gove in 1951. Other mineral discoveries and development followed.

The establishment of the Commonwealth Department of National Development was a major factor behind the present development. Data on all matters were collected and assessed, and research encouraged by such agencies as the CSIRO. The Government, in providing financial incentives for prospecting, and together with increased mineral markets, contributed to the widespread mineral exploration. Living conditions have been raised because of modern communications and facilities. However, because of mechanisation, the labour force has not, nor has it had to, increase.

² *The Journal of the Institution of Engineers*, Apr-May 71: 'Presidential Address: The Northern Miracle.'



The Northern Territory relies basically on mining and the cattle industry. The minerals available (uranium, iron ore, manganese, bauxite, silver, lead, zinc, copper) are of strategic value in the technological society. When viewed from the aspect of low population to land area (0.8 people per square mile; the lowest in the world), their value could be the basis for the use of force by a nation denied their supply by Australia. This threat, whilst small, cannot be ignored, and Army interest must be focused in this area. Australia must retain control of these resources for her own future.

The primary industries of mining and cattle are served by a poor road and rail network. Because of the vast distances, these forms of communication are only slowly being improved. The Commonwealth Railways operate the two lines in the Territory, separated between Alice Springs and Larrimah by 630 miles. The gauge is 3'6". Only 1,800 out of 12,000 miles of road are sealed. As at June 1968, \$14.2 million had been spent since 1961-62 on beef road construction.³ The table below shows a list of the main beef roads completed or commenced:

ROAD	MILEAGE
Anthonys Lagoon Road	140
Yuendumu Road	168
Plenty River Road	128
Dunmarra — WA Border	364
Top Springs — Wave Hill	100
Katherine — Willeroo — Top Springs — Timber Creek — WA Border	212

So far, this paper has developed the theme of Army interest in the Northern Territory, with an emphasis on engineering development. The problem of how RAE could participate in this development is now to be examined. However, such participation would necessarily involve other Corps, and may require, or even depend on, assistance from the other services.

RAE PARTICIPATION IN DEVELOPMENT

The first consideration must be to ask in what way can RAE participate, and assist, in Northern Territory development. Two solutions are possible:

- By providing design and supervisory assistance on construction tasks; or

³ *Year Book Australia*, No. 55, 1969.

- By providing a construction agency, e.g. a construction squadron, to build a specific project, or projects.

The first solution is based on the successful formula of the integration of the District Engineers Office, RAE with the Department of Public Works in Papua New Guinea. In the Northern Territory, integration of a like unit would have to occur with the Commonwealth Department of Works, a much larger organization, in both personnel and finance, than its counterpart in Papua New Guinea. Factors to be considered include:

- **Integration.** Because the Commonwealth Department of Works is tasked with all Commonwealth Departmental works needs, restraint and diplomacy would have to be exercised. Gaining approval for an Army unit to be inserted into this Department's organization would require high level action. The Commonwealth Department of Works would have to signify that it lacked the staff for, or that it would appreciate Army assistance in a particular project.
- **Manning.** Using the District Engineers Office, RAE as a guide, a strength of approximately 25 all ranks would be indicated. This may not initially appear difficult when viewed as a percentage of the total RAE commitment. However, personnel would need to be carefully selected to ensure relationships between the unit and the Commonwealth Department of Works remained stable. Secondly, only those qualified in supervisory or trade levels could be considered. Finally, care would be needed in selecting only those who would be compatible with a small unit and a possible remote location.
- **Financial Delegations.** Experience from the District Engineers Office, RAE in Papua New Guinea indicates that the engineer appointments in the unit must have equivalent financial delegation and powers to those enjoyed by the parent organization. Existing Army delegations are not designed for construction tasks in that they are geared to a separate set of criteria, not based on engineer needs at all. In determining the unit status within the framework of the host department, this problem of financial control and delegation would need to be examined to assure parity of the Army engineers with their civilian counterparts.

- **Location and Working Accommodation.** In locating a small design and supervisory unit, conflicting requirements would be encountered. First, the unit should be located close to a project to reduce travelling time and to provide ready access to the works site. On the other hand, the unit should be located in a population centre with the minimum acceptable facilities of communications (telephone, main road and airstrip) and the everyday requirements for the family (schooling, shopping and recreation). Working accommodation could either be permanent (as in Popondetta where, after the District Engineers Office RAE moved out, the buildings were taken over by the Administration) or temporary (a good example is the use of caravans). The location, and type of accommodation, would depend ultimately on the project adopted.
- **Families.** To provide continuity and interest in work, and to conform to local behaviour and job tenure, postings of at least two years would be necessary. This would ensure opportunities for others in RAE to undertake this type of work. Families must accompany personnel, thereby involving the procurement, or construction, of married quarters. The provision of normal tropical scales of furniture would apply.

The second solution of providing a construction agency for a particular project (or projects) has been tried before, but not in the Northern Territory. The two examples that spring readily to mind are:

- The Wewak — Maprik Road in New Guinea, and
- The Keningaw — Sepulot Road in Sabah, Borneo.

Neither of these roads was completed, for similar reasons — the first because the commitment to Borneo in 1963 was of greater priority than the Papua New Guinea task, and the second because South Vietnam took precedence over Borneo in 1966. In both tasks, a healthy competition was evident between units as to the amount of work completed in their eleven-month or six-month tour.

Factors to be considered with this approach are:

- **Selection of Project.** Ideally, the task selected should allow for completion, and thus not continue the precedent set in Papua New Guinea and Borneo. The task must then be within the scope of RAE (e.g., railway track laying is outside RAE

capability today), yet should provide a challenge to the tradesmen employed. Ideally, vertical and horizontal construction should be evident, although this may not be possible. (In road construction, the major part of the work is horizontal [or plant], yet vertical construction tradesmen, e.g., carpenters, are required for bridge building.)

- **Type of Unit to be Employed.** There are two types of unit available — the Field Engineer Regiment (of which there are three) and the Construction Squadron (of which there are two). The latter unit is designed to carry out projects in base, or relatively safe areas, whereas the former are designed primarily to provide support in the combat zone. They are not expected to work to the same tolerances as a Construction Squadron, yet all tradesmen receive the same training.
- **Duration of Project.** Major construction tasks take longer than 12 months to complete, and depending on the priority, finance committed and rate of construction, may take several years. Thus, all five construction agencies could be rotated through a job on, say, a six-monthly basis, or alternatively, a unit could be committed to a complete project. The alternatives need consideration in view of turbulence within the Corps, time lost in project handing over, marital separation (and morale) and training value to the majority.

CONCLUSION

Army assistance in development in the Northern Territory would be beneficial, firstly, to the nation. Highly qualified engineers and supervisors, trained at public expense, would give a return on that investment in a strategic area. Secondly, expertise in another environment would be gained. Because of the Army's concern with South-East Asia in the last generation, this is an important consideration. Thirdly, Army engineers would be participating in Australian development, a sadly lacking experience until now.

RAE involvement could take one of two forms. The decision on whether to use a design and supervisory office, or a construction agency, can only be made after considering cost, the type of project, future commitments and manpower and the role of the Army.

Irrespective of the form of involvement, there is a desire within RAE to assist in Australian development.



VALIDATION of OFFICER TRAINING— a manpower planning must



Majors N. A. Jans and P. F. Routh

AN oft-quoted statement is 'that there are no good and bad units, only good and bad officers'. Mesh this with another — 'the Army's most valuable resource is its manpower' — and we have the axiom that officers are the most critical components in the military machine.

Officer manpower planning is thus of vital importance. A general objective of manpower planning is to get the right men with the right abilities in the right place at the right time. For officers, this covers a vast spectrum: the men are of widely differing capacities and inclinations; the abilities required range from conduct of a stocktake to the direction of divisions across continents and the time frame involves immediate manning problems to the higher direction of the Army towards the end of the century.

One of the strategies we use to prepare officers for present and future jobs is that of training. (We use the expression 'training' to include on-the-job training and deliberate policies of development such as job rotation and experience outside the service, as well as formal courses at army schools.) Training is designed to produce behavioural changes by giving the officer knowledge, skills and attitudes which he did not have previously.

This essay is concerned with the validation of training. Validation of training is defined by the Australian Army as 'procedures which are taken to establish whether a training strategy is effective... i.e. determining whether a course appropriately prepares trainees to meet on-the-job requirements'.¹

Major Jans graduated from the Royal Military College, Duntroon in 1964 and was allotted to RAA. He attended the South Australian Institute of Technology from 1965 to 1966, graduating as a Bachelor of Technology in electronic engineering. He held a number of regimental and staff appointments from 1967-71.

Major Routh was commissioned in the RAAEC in 1965 and held a series of educational and training appointments from 1965-71. He graduated as a Bachelor of Science from the University of Queensland in 1968. Both officers attended the Department of Occupational Psychology, Birbeck College, London in 1971-72 graduating as Master of Arts (Manpower Planning). They are presently Training Systems Advisers at the School of Artillery and School of Military Engineering respectively.

Validation broadly concerns itself with such questions as: Are we teaching the right things? Are there aspects of the job which should be covered by training but are not? What job requirements have changed since we last reviewed the course? What is the relationship between training success and job success? — and so on.

Such questions should be answered about every training course the Army runs, but readers will be aware that officers' jobs have certain general characteristics which call for special consideration. These are noted on our model (Figure 1). Executive and managerial jobs are peculiarly sensitive to variations in time, person and situation conditions.² This in no way abrogates manpower planners from validation of training, but it does mean that such programmes must be carried out by skilled and experienced people on a full-time basis with wide-ranging terms of reference.

It is our suspicion that such programmes which presently attempt to validate officer training in the Army are inadequate in terms of the above criteria and in terms of the scale of present activities, i.e., not enough is being done. To illustrate the kinds of programmes we envisage, we intend to discuss the following aspects:

- the adequacy of present courses and job rotation programmes;
- the relationship between training success and job success; and
- the techniques which might be used.

The Adequacy of Present Training

To be considered as 'effective', training programmes must enable men to cope satisfactorily with the requirements of their jobs. In the case of officers, 'the requirements of their jobs' often include their future as well as their present appointments. The policies of training the Army follows may be producing satisfactory officers now and may produce satisfactory officers in the future. Then again, they may not. It is contended that there is very little knowledge of how adequate training is, because there have been insufficient attempts to systematically investigate and define the requirements of jobs. (We will avoid discussion of the question of preparing present junior officers to be the generals of the future, except to say that we believe it should not be treated as an uninvestigatable problem.)

¹ *A Guide To Training Systems*. Directorate of Training Policy. 1972.

² Campbell, J. P., Dunnette, M. D., Lawler, E. E., and Weick, K. E. *Managerial Behaviour, Performance and Effectiveness*. McGraw-Hill, New York, 1970.

If the above contention is correct, then the Army's position can be likened to that of a sporting coach who sees his team perform only at training sessions and never goes to see them play, receiving reports of their performance by questioning randomly chosen spectators several days after the game.

It may be argued that the normal turnover of training staff ensures that officers of recent field experience are always available to critically review schools' training. However, these officers are not usually fresh from the jobs for which the reviewed training is being carried out; they represent only a minority opinion; and invariably receive neither instructions nor time to carry out a survey of the products of the training whilst they are still on the job. Hence their decisions are not based on adequate evidence. Such 'validation' methods are a poor shadow of those involving comprehensive and systematically gathered information of job requirements and the way they are being coped with by training.

A recent survey done in the RAA illustrates this point. A sample of ARA gunner majors and lieutenant colonels were invited by a questionnaire to give their views on the background required by a Battery Commander. Respondents were invited to comment on the *desirable* situation — the formal training and on-the-job experience a Battery Commander *ought to* have and the *existing* situation — the extent to which they believed this background was possessed. The survey techniques and statistical procedures used were not of a particularly complex nature, but clear indications were obtained of the 'musts, shoulds and coulds' of career planning. The important point was that the survey method gave an assessment of present requirements and a general indication of how they were being met, which was of a much higher quality than that which could have been produced by a single officer or small group of officers.

Of course, this is merely a first small step on the path leading to establishment of systematic validation of RAA officer training. Such an opinion survey should be followed up by an attempt to obtain 'harder' data on the requirements of those areas thought to be weak, and investigation of the reasons.

In summary of this section, then, we believe that training becomes a game of blindman's bluff unless its results are followed through to the job. Officer training is even more important in this regard because we wish to not only measure present effectiveness but also to predict future effectiveness. This leads us into our next section.

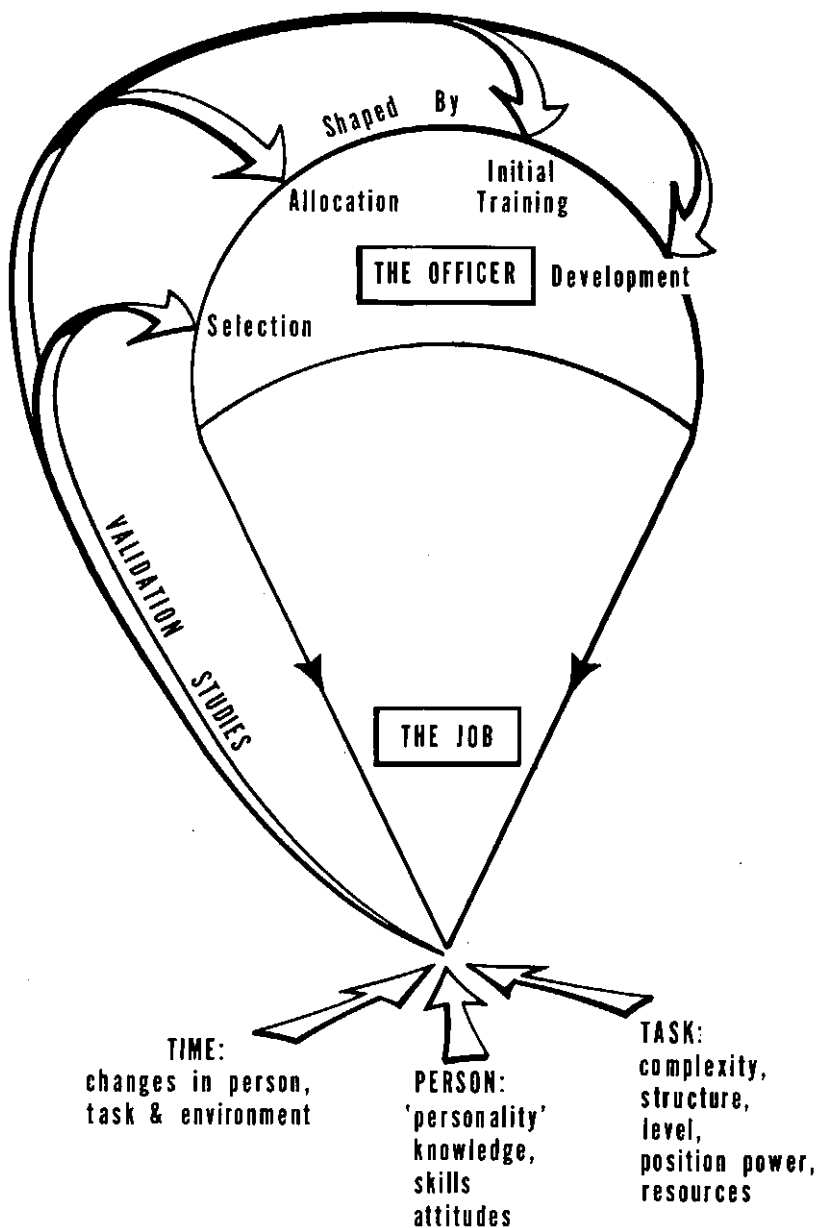


FIGURE 1

Validation model of officer selection and training.

The Relationship Between Training Success and Job Success

The higher an officer goes, the more complex is the mix of executive and managerial skills required to cope with the needs of the job. It matters very much that the future incumbents of senior ranks in any organisation are the best available. The most common way of choosing them is as a result of their past performance. Therefore, the more confidently we can predict future effectiveness from present performance, the better will be our selection procedures. A virtual axiom, this requires that we follow up all training undergone by officers to establish the kinds of training performance done by those judged to be more effective than others.

Taken to an extreme, this means we should correlate generalship with cadetship. It is illogical to then predict generalship by the same parameters as those of effective cadetship, not only because present cadet training is much different from that of the 'distant' past, but also because future generalship is likely to require different capacities (at least in detail) to that of the present. However, by confining our links to periods of time in which the requirements of both the predictor experience and the predicted experience are unlikely to change greatly, we can establish useful relationships.

The above preamble is to the question: to what extent is present career and training performance a good guide to later career performance? Will the best Company Commanders make the best COs? Will the best Company Commander make the best high ranking general staff officer? There is much anecdotal evidence that the answer to these questions is 'yes'. However, recent research into leadership has suggested that significantly different qualities are required in different jobs and in different levels of the same types of job.

A series of experiments and field research conducted over a number of years on military and civilian leaders in many countries has indicated that those leaders who are effective in one situation may be ineffective in another.³ Fiedler's 'contingency model' attempts to predict how the effectiveness of group leaders is related to four variables: the 'personality' of the leader, the degree of structure of the task, the relations between the leader and the group and the leader's position power. The latter three variables can be arranged together to form a continuum of 'situation favourableness' for the leader. The contingency model is shown in Figure 2.

³ Fiedler, F. E. 'Leadership Style and Organisational Performance' in Wilson, N. A. B. (ed.) *Manpower Research*. E.U.P. London, 1969.

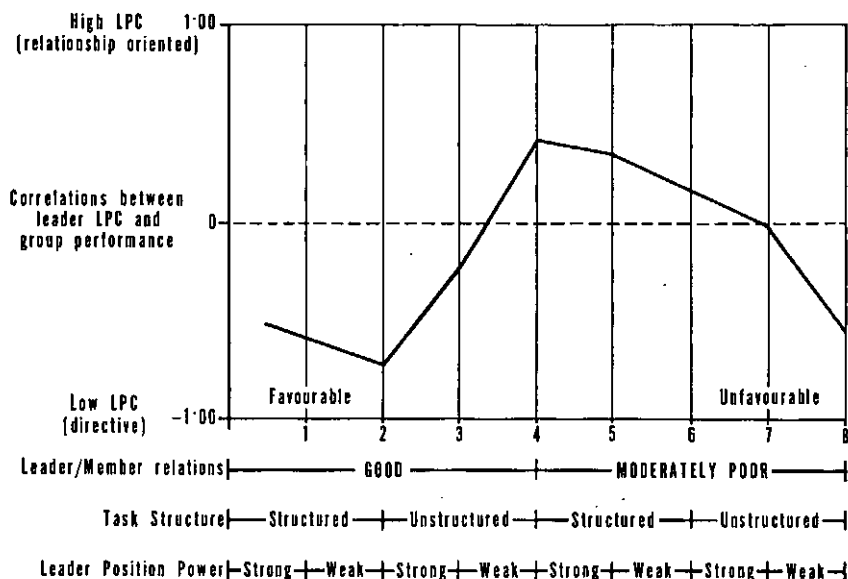


FIGURE 2

Correlations between leaders' LPC scores and group effectiveness plotted for each cell (from Fiedler, op cit).

The evidence presented by Fiedler suggests that 'directive' leaders are effective in very 'favourable' or very 'unfavourable' situations, and that they are *not* effective in situations of moderate favourableness. On the other hand, 'relationship oriented' leaders are effective in moderately favourable situations, but ineffective in extreme situations.

Fiedler's measure of 'directiveness' is a personality factor he measures by the LPC rating. We will not discuss the LPC rating here, but point out that a man's LPC rating would be constant *whether or not he consciously attempted to vary his behaviour to suit the situation*. In other words, the suggestion is that the leading leopard cannot really change his spots as the situation changes, no matter how much he is aware of the need to do so. (Moreover, it has been forcibly argued⁴ that the leader risks disaster by attempting to do so. In many cases, practising the 'wrong' or inappropriate leadership style is not much worse than attempting a style one cannot sustain.)

⁴ In a lecture at SME on 3 May 1973 by the CO of the Sydney University Regiment and Managing Director of Scott & Browne (Australasia) Ltd, Lieutenant Colonel J. R. Dart ED BSc Dip Ed FAIM AFAISM.

The implications of this are obvious, and we can see evidence around us that supports Fiedler's theory. Haven't we all known many officers who were very satisfactory regimental leaders but poor staff officers? (and vice versa?). We do not say that this situation exists in the Australian Army. No one can say that, just as no one can say that it does not exist. We simply have no objective evidence of the relationship between leadership performance in regimental appointments and that in higher staff jobs.

The Techniques

We have argued that there is an urgent need for validation of training for officers, including on-the-job training. We now turn to the question of how to go about it. The rest of this article outlines, in general terms, our thoughts on this.

Basically the problem falls into two categories — deciding on what aspects of jobs we want information and devising procedures for getting it. We could get voluminous information on officers in particular jobs, but in general it is useful to concentrate on two types — behaviour in aspects of the job which are important and the difficulties and distastes associated with the jobs.

- 'Important' aspects are those that if not performed well and willingly lead to an unacceptable failure cost to the unit. They are not necessarily difficult.
- 'Difficult' aspects are those with a high likelihood of failure due to cue, action, feedback ambiguities.
- 'Distasteful' aspects of a job are closely related to the motivational component of the task performance.

Keeping these factors in mind we can use a 'pathological' approach to studying jobs — the study of what went wrong in the past. Assessment of training effectiveness can thus be directed at these key areas.

Procedures should include questionnaires and interviews with the man, his superiors and subordinates, measure of his work output in quality and quantity (although this is often hard to pin down) and measurement of the performance of the people for whom he is responsible. Comparative measurements are useful in all cases: to determine more systematically what effect, on performance, training has had. In many cases, this performance will be assessable only in subjective terms. It is difficult to isolate the influences which other people and events have on performance, making objective measurement difficult or impossible.

Subjective assessment is already in wide use, but we need to have a systematic basis to make it most useful to the service and to the man.

Confidential Reports, covering as they do rather general characteristics of officers, are not suitable for this in their present form. We would propose several steps in producing a more useful one. First, the existing form should be analysed statistically to determine how well it is being used. Secondly, it should be based on job analysis which reveals the aspects of the job on which we want information. (This would require that different types of jobs have different types of reports.) Thirdly, the redesigned form(s) should be extensively piloted and analysed. Finally, continual investigation should be conducted on the manner in which the forms are being used.

All these procedures should be formalised and used in a way that keeps information coming back to manpower planners and training organisations rapidly and as far as possible automatically. This requires schools to appoint quality control teams and devise and promulgate schedules for reporting on ex-students.

We would add that it is highly likely that information gained by quality control of training procedures would be useful for a wide range of manpower planning aspects. Moreover, these aspects may be in many cases the most economical way to tackle problems revealed and may be substituted for or complementary to changes in training. In any case, training changes will inevitably interact with such aspects as selection, allocation, organisation and motivation, and manpower managers must be aware of the nature of these situations.

Conclusion

The interactive nature of training and other aspects of jobs underlies the whole rationale of validation. Jobs and the people in them are dynamic: training must be equally dynamic to cater for the jobs and the people. We conclude by repeating the main requirements of effective validation:

- It must be directed at the key areas of jobs, seeking evidence on these key areas that is comprehensive and systematically gathered.
- It must establish relationships between training success and job success.
- It must be done by experts on a full-time basis using a wide range of survey techniques.



AUSTRALIAN RAILWAYS

a strategic tool of national defence

Captain J. H. Boot
Royal Australian Corps of Transport

INTRODUCTION

AS the arteries and veins are to the human body, so are the railways to a nation. Able to economically transport large quantities of men and materiel over long distances, in relatively short times, railways have proved their strategic value in many theatres of war since the American Civil War when they were first used as a strategic weapon.

However, in most of the Western countries today, military planners are being seduced by the glamour and speed of transport aircraft, such as those that were used in the Vietnam conflict, and are relegating railways to the past.

Australia today has no railway units (ARA, CMF or SR) on its Order Of Battle. Similarly the United States of America has reduced its railway units to holding elements only. It seems that only the Communist countries, realising the importance of the railways in a major conflict, are maintaining their railway units and expanding their rail networks to a strategic plan.

The aim of this paper is to point out the strategic value of the railways to Australia in time of war, in the hope that our military planners will realise that the inherent economies and the flexibility of

Captain Boot enlisted in the ARA in 1958 and attended OCS in 1963. After graduation from OCS he was posted to PNG as OC 821 Water Transport Troop. Subsequently he has held a number of postings in Transportation and Movement Control units. In 1970 he was admitted as a member to the Chartered Institute of Transport. He is currently attending the Transportation Officers Advanced Course at Fort Eustis, USA, following which he will become the Australian Exchange Officer at the US Transportation Centre.

the railways, together with their ability to withstand great punishment and still operate, make them as strategically important today as they have proved themselves in the past. To do this it is first necessary to give a brief historical background of the Australian Railways.

HISTORICAL BACKGROUND OF AUSTRALIAN RAILWAYS 1846-1939

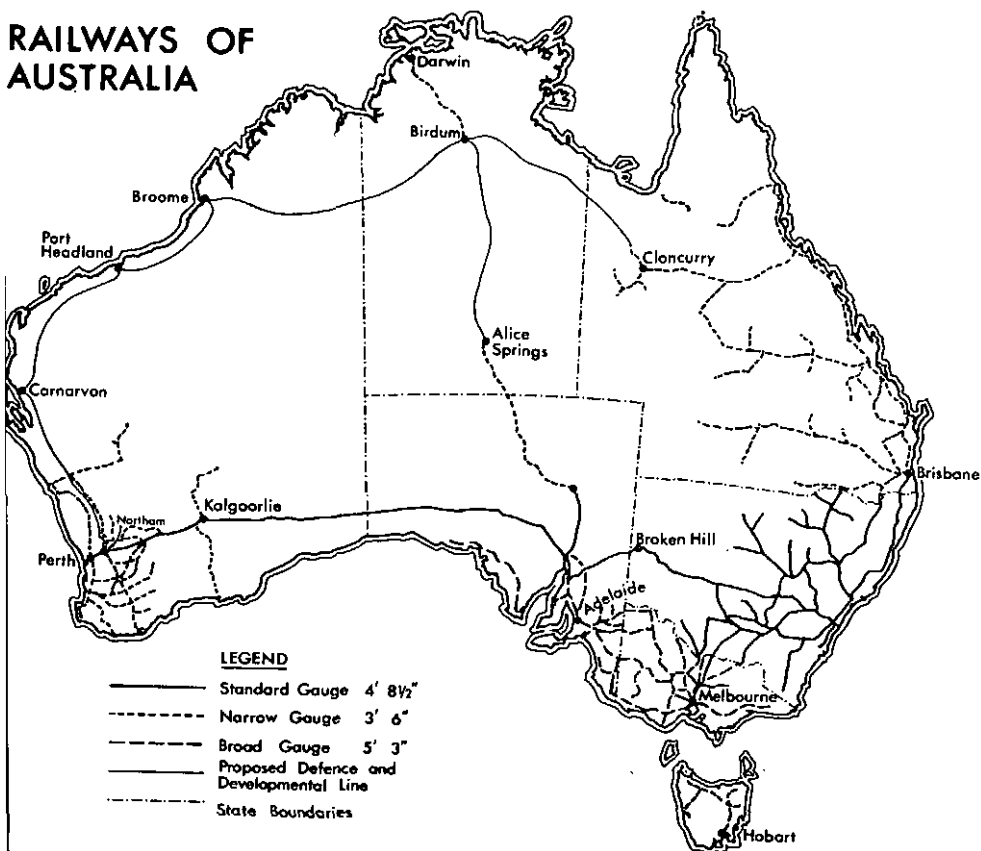
In 1846, before any track had been laid in any of the Australian Colonies, the British Secretary of State for the Colonies (Lord Grey) sent a letter to all the Governors of the Australian Colonies recommending that a uniform gauge of 4' 8½" be adopted for use throughout the Australian Continent. The aim of Lord Grey's letter was to ensure that Australia was not beset by the problems then being encountered by the United Kingdom, Europe and the United States of America where track had been laid in a number of gauges.

However in 1850, New South Wales, on the advice of an Irish engineer named Shields, sought permission from Lord Grey to construct a railway line using a track gauge of 5' 3" (Broad Gauge). In 1853 permission was granted and an Act was passed which decreed that all track laid in New South Wales was to be of 5' 3" gauge. The Colonies of Victoria and South Australia, in the interest of standardisation, accepted this gauge as the Standard Gauge for Australia.

Complications arose when Shields resigned and was replaced by a railway engineer named Wallace who was just out from the United Kingdom. Wallace, knowing that the major overseas countries were standardising on the 4' 8½" gauge, urged that this gauge be used in New South Wales. His representations resulted in the repeal of the 1853 Act, and the 4' 8½" gauge replaced the 5' 3" gauge as the approved gauge for all construction in New South Wales.

Unfortunately, whilst New South Wales was vacillating, the Colonies of Victoria and South Australia had made firm plans for laying track in the 5' 3" gauge and, in fact, had outlaid large sums of money for the purchase of locomotives and rolling stock for that gauge. On being advised of New South Wales' change to the 4' 8½" gauge they tried to induce her to revert to the 5' 3" gauge. Being unsuccessful in their efforts they decided, in view of the capital already outlaid, to continue with the 5' 3" gauge. In 1854 the first section of track built for steam engines in Australia was opened in Victoria; this section

RAILWAYS OF AUSTRALIA



was built to the 5' 3" gauge. This event was closely followed with the opening of a section of 4' 8½" gauge in New South Wales in 1855.

The Colonies of Queensland, Tasmania and Western Australia commenced railway operations in 1868, 1871 and 1873 respectively. Being small colonies, isolated from New South Wales, Victoria and South Australia (with links between the colonies considered remote), they had followed the dictates of economic necessity and constructed their railways in the cheaper 3' 6" (Narrow) gauge, thus compounding the gauge problem within Australia.

From 1873 until Federation in 1901, no effort was made to standardise the rail gauge throughout Australia. Western Australia's demand, prior to Federation, that a railway line be constructed to join

that State with the Eastern States was the catalyst that brought about the construction of the first section of standard gauge outside New South Wales. With the construction of this section between Kalgoorlie and Port Augusta (1,063 miles) the decision in favour of the 4' 8½" gauge as the Standard Gauge for Australia became irreversible.

Between 1901 and the outbreak of World War II a number of Commonwealth/State Conferences were held. These conferences all paid lip service to the principle of a standard gauge, but no action was taken to implement the conversion of the various systems. In fact, during this period an additional 9,776 track miles of other than standard gauge track was added to the total route mileage open within Australia.¹

The following table shows the break-up of the route mileage open by gauge and State at the outbreak of World War II.²

Gauge	NSW	Vic	SA	WA	Qld	Tas & Terr	Aust
5' 3"	204	4,307	1,651				6,162
4' 8½"	6,164	202	871	767	69	5	8,078
3' 6"			1,287	4,068	6,468	1,132	12,955
2' 6"		9					9
2' 0"					30		30
Total	6,368	4,518	3,809	4,835	6,567	1,137	27,234

WORLD WAR II — THE TESTING PERIOD

World War II brought home to Australia's leaders the fact that the transportation system was an essential element in the nation's war effort. With Japan's entry into the war and her subsequent interdiction of the sea lanes to and from Australia, the nation was forced to utilise its internal transportation systems to the utmost.

The railways bore the brunt of this huge increase in passenger and freight traffic. Factors which caused a heavy reliance to be placed on the railways were:

¹ *Year Book Australia 1968*, Commonwealth Bureau of Census and Statistics, pp. 412-3.

² *ibid.*

- Coastal shipping was severely restricted by the presence of enemy submarines off the Australian coast.
- Diesel fuel was rationed, which restricted the use of motor vehicles; the steam locomotives then in service with the railways used coal which was readily available in quantity.
- They were the only mode of transport that could handle the huge quantities of war materiel over the distances involved.

It was not long before this tremendous workload showed up the inadequacies of the Australian railway systems; locomotives and rolling stock were unable to proceed beyond the limits of their respective systems; large transshipment yards had to be constructed and manned at a huge cost in men, materiel and money (all in critical short supply at that time); the system was unable to economise by the pooling of equipment and facilities as was done in the USA in the same period.

All this resulted in a gradual overtaking of the system, which reached the stage that in 1943 (at the commencement of the New Guinea offensive) almost every siding on the main line between Melbourne and Cairns was filled with staged traffic, and it became necessary for strict embargoes to be placed on non-essential traffic to enable the movement of priority traffic to be implemented.³

Queensland, being the state closest to the war zone, was used as the major staging area in Australia. This resulted in a particularly heavy load being placed on the Queensland Railways which was taxed to its limits. Breakdowns and bottlenecks within the system had an adverse effect on the war effort.

At the end of World War II, the Australian Government, mindful of the difficulties encountered during the war, appointed Sir Harold Clapp, the then Director General of Land Transport, to prepare a report on the standardisation of the Australian Railways. From the defence point of view Clapp's most important recommendations were:

- That all sections of line between Sydney and Fremantle should be converted to standard gauge.
- That a standard gauge defence and developmental line should be constructed joining Darwin to the New South Wales standard gauge system at Bourke.

³ Fearnside J. H., *All Stations West*, Haldane Co. Pty Ltd. 1970, p. 115.

Because of differences between the Commonwealth and the various State Governments, Clapp's plan went the way of its predecessors and no action was taken to implement his recommendations. In fact it was not until 1962 that work started on the upgrading of the Sydney to Fremantle line to standard gauge.

POST WORLD WAR II IMPROVEMENTS

Since the end of World War II the Australian Railways have made a number of very important improvements from the defence viewpoint. These include:

- The Sydney to Melbourne standard gauge link, opened to traffic in 1962.
- The Sydney to Fremantle transcontinental standard gauge through line. This line, linking all capital cities except Adelaide, was completed in 1970 just 49 years after the Inspector General of the Australian Military Forces had included the following statement in a Defence Report to the government:⁴

The linking of our capital cities by railways, beyond striking distance of the coast, and the establishment of a uniform gauge throughout the Commonwealth is a matter of paramount importance.

- The introduction of a bogie exchange system by the Victorian Railways in 1962. This system, located at break of gauge points, enables straight through raiing of interstate freight, over different gauges, without transhipment of goods from one waggon to another thus saving time and double handling.

These improvements and others have improved our capability to move men and materiel from the East to the West Coast but little has been done to improve our capability to move men and materiel to our Northern shores which is the most likely area an enemy would pick to invade the Australian Continent.

THE UNPROTECTED NORTH

The northern third of the Australian Continent is extremely rich in mineral deposits, and its agriculture is capable of sustaining much closer settlement. Because of its present and potential wealth and the fact that it is underpopulated and without any major defence force

⁴ *Harding, B. Uniform Rail Gauge*, Brown, Prior Pty Ltd, 1958.

between Townsville and Perth (approximately 5,000 miles of coastline), this area is a beckoning target for any expansionist country.

It is not within the scope of this paper to deal with possible threats to the Australian Continent, but it is prudent to point out that throughout recorded history there are numerous examples of unexpected invasions which were successful because the inhabitants were not prepared.

What must be brought home is the mere fact that if an invasion force were to land at Cape Londonderry, Massacre Inlet or at any other inaccessible location on our Northern coast it would be a major problem to even transport a limited reaction force to the area, much less support a large force for any protracted period.

Now is the time when our military planners should be actively supporting, or even initiating, plans for defence and developmental projects in this area.

DEFENCE AND DEVELOPMENTAL LINES

It is realised that expansion of any rail network is an extremely expensive proposition. For example, the 120 miles of standard gauge necessary to join Adelaide to the national standard gauge system is planned to cost \$50 million or approximately \$416,000 per mile.⁵ In more remote areas this cost would probably be considerably increased. The following projects are submitted, however, as being worthy of consideration from a commercial viewpoint, apart from their obvious strategic value to the nation.

- **Priority 1 — Mt Iso to Birdum.** Approximately 650 miles of track which would connect the Darwin to Birdum line to the Queensland system. Apart from providing a strategic rail link with Darwin this line would provide an outlet for the rich mineral and cattle producing Barkly tablelands to southern markets.
- **Priority 2 — Meekatharra to Mt Newman.** Approximately 250 miles of track which would link the private Pilbara iron ore lines to the Western Australian system. This line would connect the tremendously rich and rapidly expanding Pilbara mineral region to the populated areas to the South.

⁵ *Australian Transport*, November-December 1971, p. 44.

- **Priority 3 — Birdum to Derby.** Construction of this spur line, from Birdum to Derby, would complete a Trans Australian line *across the northern third of the Continent.* This line would open up the vast Kimberley mineral and pastoral region and be of vital importance to the defence of the area.

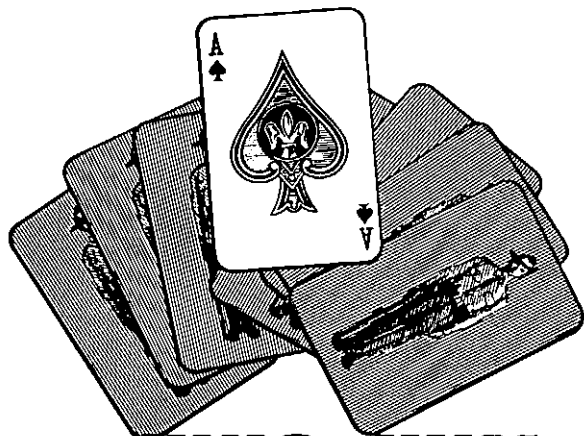
The magnitude of the above projects means that they would be extremely costly and of a long term nature. It is not within the scope of this paper to cost them or to argue the pros and cons of whether construction should be in standard gauge, or narrow gauge in conjunction with bogie exchange.

A study of railway history will show that developmental lines of this nature are invariably followed by closer settlement, which generates additional traffic for the line. Another factor which will influence the economics of the above lines is the ever growing world shortages of minerals and beef, which predicates a growing importance being placed on the development of the rich mineral and grazing areas of the northern third of our continent.

CONCLUSION

To date Australia has not been host to the type of general war in which the railways have played such a decisive part as have Europe, Asia and the United States of America. It is hoped that the railways of Australia will never have to be used to support a war effort again but it is essential that we have the capability if it is ever required.

Let us be cognisant of the fact that the railways of Australia are a strategic tool of this nation's defence and expand them in such a manner as to serve our nation's strategic and economic interests at the same time. □



WHO WILL IT BE ?

Captain W. L. Fowles
Royal Australian Corps of Transport

INTRODUCTION

DID you know that about 50 soldiers are killed in road accidents each year? The limited figures available to the author also indicate that about 500 soldiers annually are injured seriously enough to warrant NOTICAS action. The *1970/71 Army Manning Review* shows that road accidents are the largest single cause of hospital admissions for soldiers. This represents an unacceptably high loss of trained or partly trained manpower, particularly when one considers the size of our Army.

RESEARCH

It appears that there is no really effective Army policy on prevention of road accidents, although some units and formations in which the author has served have taken positive action to reduce the toll within their capabilities. One therefore wonders whether any wide research has been carried out in this field with the aim of reducing

Captain Fowles graduated from the Royal Military College, Duntroon in 1966 and was allotted to RAASC. He was OC of Central Command Trade Training Centre in 1967-68, 4 Supply Depot in 1968-69 and 24 Transport Platoon in 1969-70. After service in South Vietnam in 1970 as OC 2 Transport Platoon he was posted to 1 OTU, Scheyville as an instructor. He is presently attending a transportation course at the Tn Centre, Chowder Bay.

road accidents involving serving soldiers. In particular, death and injuries to soldiers driving or riding in civilian vehicles give cause for concern. For example, the statistics available indicate that of the 27 road deaths in the six months to 30 June 72, only three involved military vehicles. Of 45 road deaths in 1971, again only three involved military vehicles. Whilst any deaths at all are, to say the least, highly undesirable, it seems that more benefits would accrue from research into the causes of road fatalities and injuries related to civilian vehicles than research purely related to military vehicles.

Speculation on the major causes of road accidents in this context is a temptation to which the writer has succumbed. However, any researcher attempting to prove or disprove the thoughts that follow may find himself restricted due to a lack of accurate statistics. Not all road accidents involving civilian vehicles are reported through NOTICAS, AAF D11 or other channels. It is likely that most units have had soldiers off work with minor injuries caused by a road accident without anyone outside the unit being aware of it. It follows that no research into the cause of the soldier's accident can be done if no central authority is aware that the man has even been involved in one. It is doubtful, therefore, that current statistics paint a true picture of the causes and extent of the road toll's cost to the Army as far as injuries are concerned.

THE COST

Research notwithstanding, the problem as it exists provides food for thought. It would probably be difficult to measure the cost of road accidents in dollars and cents, but the effect of losing a soldier either temporarily or permanently is certainly not one which can be glossed over. If a man is killed on the roads another must be trained to take his place. This takes about six months for most corps, including recruit training. If he is injured, there is a delay before he is fit for duty once again, and his workload must be spread amongst others. Additionally, the injured man may occupy a hospital bed at public expense whilst on normal pay. The less obvious costs of repairing or replacing a military vehicle, (if applicable), plus the time taken for an investigation, and the general additional A burden, must be taken into account. The reduction of a unit's operational efficiency, particularly if the injured or dead soldier is a key member, cannot be measured in dollars but is certainly an important consideration. The emotional cost to relatives and friends also cannot be rated in monetary terms.

THE CAUSES

Alcohol

According to Press reports, alcohol is the major single factor contributing to road accidents in the general community. It is likely, therefore, that this also applies to soldiers. The NSW Traffic Accident Research Unit (TARU) states that the average male can consume five 10 oz glasses of beer in the first hour of drinking before the NSW legal maximum blood alcohol limit of 0.08 is reached. His body will, however, only eliminate the equivalent of one glass of beer per hour. Consequently, only one glass per hour can be drunk after the first hour's drinking if the 0.08 limit is not to be exceeded. The average soldier at a good party or social function will, of course, drink at a higher rate. It follows that he will be driving illegally if he attempts to propel his car back to camp afterwards. He could still be over the legal limit if he decides to sleep overnight and drive back to work the next morning, depending on his total consumption.

The TARU has also found that the traditional methods of sobering up are myths. Black coffee, cold showers and walks in the cool night air merely succeed in producing wide awake drunks. The man who drives his car after trying these so called remedies is probably more dangerous than the man who has not, as the latter would most likely be asleep rather than behind the wheel. The legal consequences of drunken driving do not have to be detailed here. It is sufficient to say that the soldier who drives whilst drunk reduces his chances of collecting his pension.

Semi Isolation of Camps

Semi isolation of major army camps is another likely factor. Camps such as Woodside, Puckapunyal and Holsworthy are within reasonable, but not close, driving distance of city attractions, and as there are few attractions in the camps themselves, particularly for the young single soldier, he will be more inclined to drive to the city than to remain in his lines after work. As most city attractions are synonymous with alcohol, the soldier is left with an hour or so's drive back to camp whilst in the worst possible condition to sit behind a wheel. All too often the result is another avoidable NOTICAS. An associated factor to this isolation of camps from cities is the distance many married soldiers must travel to and from work because of the lack of on-station married quarters in many areas.

Access Roads

Also allied with the semi-isolation of most camps is the condition of access roads to those camps. Remembering that our soldier is likely to become more careless in his driving towards the end of his journey through the effects of weariness, alcohol and perhaps over-confidence in his own driving ability, it is likely that some soldiers kill or injure themselves when close to their barracks on the bitumen obstacle courses called access roads. It does not follow, however, that current statistics will reflect whether this is a valid assumption, for reasons mentioned earlier. The roads between Singleton and the 3TB area, between the Hume Highway and Puckapunyal, and the access road to Woodside are prime examples. Readers may think of others. The main reason for these poor roads seems to be an unwillingness on the part of the local road building authority or council to provide roads commensurate with the traffic that uses them. Finance is no doubt the prime consideration, and as the Commonwealth does not seem to pay direct rates or direct State road taxes for these roads, they are often given a low priority by the local authority responsible. Road width, lighting, warning signs and centre lines are therefore inadequate or absent just at the time they are needed most. This does not absolve the soldier from responsibility to drive within road limitations of course, but telling him where he erred becomes futile if he is already a statistic.

Age Bracket

It is common knowledge that the under 25 age group has the worst accident record. The average age of ARA/ARAS(O) ORs is 24 years. Statistically, therefore, the bulk of regular soldiers are in the high accident risk group. All NSM who have elected to complete their 18 months service are, apart from a handful of deferred members, in the same age bracket. This factor must, therefore, have some bearing on the Army's road toll.

Mobility

The other probable major factor contributing to the high casualty rate is the high mobility (not in the recruiting poster sense) of the soldier. Looking at the Army as an industry, it is doubtful whether any other Australian employer group except the road transport industry commits its employees to such frequent movements by road. Coupling this with

the ease of obtaining motor cars in this age of HP, plus the isolation factor mentioned earlier, one realises that the average soldier spends a great deal of time behind the wheel of his private car. How many single soldiers in your unit, for example, travelled home by normal means for ARL? Probably most drove their own cars or travelled by road with a friend.

These major likely factors of alcohol, isolation of camps from entertainment attractions, condition of access roads, the age bracket and the personal mobility of soldiers both on and off duty, all contribute to a situation which is quite alarming. They are all, except the alcohol factor, mainly peculiar to servicemen and soldiers in particular.

Other Probable Factors

Other factors which may affect the accident rate include unroad-worthy vehicles and the generally (by community standards) long working hours of Army members. It is unlikely that any major unit in Australia is manned to its establishment level, and whilst this does not materially affect the workload on most soldiers in understrength operational units, it probably does mean that members posted to units with a constant workload, such as RTBs, RAEME workshops and RAASC transport companies are relatively overworked. It is possible that this factor, combined with the distance that married soldiers have to travel to and from work, leads to unnecessary accidents through the soldier being in a poor mental condition to drive home. Again, it is doubtful whether any accurate statistics indicating this factor are available.

Remedies

Assuming that the thoughts expressed earlier are proven to be valid, some likely remedies come to mind. There is, however, no obvious panacea. It is easy to say that driver education is the complete answer; but whilst this is an asset it does not overcome the fact that soldiers are human, and are therefore subject to human frailties and errors. Some units have taken positive steps within their resources to reduce the accident rate, but unless a wider awareness of the problem is forthcoming there will be little decline in this needless carnage.

Alcohol

The alcohol factor will probably never be overcome. Driver education is of assistance here, but should be positive in its nature. It is

quite useless to talk in generalities to a group of soldiers and hope for a response. Facts such as the number of soldiers injured or killed in accidents where alcohol was involved, the actual effects of excessive drinking on driving ability, and the limit of 'capacity' for the average person should be stressed. The civil law penalties for driving under the influence should be publicised, but this should not be done as a scare tactic to attempt to frighten soldiers into obeying the law. The TARU has found that exhibiting horror films such as those produced by the Ohio State Highway Patrol has a negligible effect on the driving habits of the audience, as people tend not to identify themselves with the mangled bodies shown on the screen. The greatest results in driver education, according to the TARU, have been achieved by appealing to the individual's common sense; a straight factual presentation of the disadvantages of driving whilst drunk is a most effective way for this to be done. The writer does not have access to all pertinent facts, but no doubt statistics and related facts could be disseminated by AHQ for presentation to soldiers in units. There is probably sufficient justification for a small team of experts to be attached to each command headquarters for the sole purpose of driver education in units. The saving of even one life would justify the expense.

Some units have introduced a system whereby a member without any cash who considers himself incapable of driving can take a taxi back to his barracks, with the fare being paid by a float from unit regimental funds held by the duty staff. The member then reimburses the float on the next pay day. Units in isolated areas where taxi services are not available could use their duty vehicles similarly. These means of returning drunk soldiers to their lines are far preferable to losing a soldier through injury or death, and represent a hidden saving in hospitalization and general A administration. If a detailed study was made of the costs to the Army from accidents, there may be a case for all units being permitted to use their duty vehicles to return inebriated soldiers to their lines. One danger would be that some soldiers may see it as a free taxi service, but this could be overcome by charging a nominal fee recoverable at the next pay day. It is cheaper to drive a drunk man twenty miles back to camp than to train a replacement.

Access Roads

Access roads could be improved with direct Commonwealth assistance to local road building authorities and councils, the funds being

earmarked for that specific purpose. This need not be excessively costly, as immediate improvement can be made by signposting and marking existing roads. A programme over a longer period should be aimed at improving access roads by widening them and adding adequate lighting. Such improvements would have the additional benefit of making camps more accessible to heavy military traffic in times of defence emergency. Puckapunyal, at least, needs good access roads for this reason alone.

Age Bracket

Apart from driver education, nothing positive can apparently be done about the age bracket's contribution to the road toll. As mentioned earlier, appeals to the young soldier's common sense should produce some results. It is doubtful whether the reaction to driver education in the danger age bracket in the Army will be much better than the reaction in the same bracket in the general community, but at least unit commanders have the advantage over most other employers in this regard, as driver education can be included as part of the normal training programme. The message about the dangers of driving should reach all soldiers if an active programme is pursued, and may produce positive results in the under 25 age group.

Mobility

The mobility factor could be reduced in a number of ways. First, by having an adequate number of married quarters at or close to each camp, commuting long distances could be reduced. The shortage of housing is widespread, and there is little doubt that this contributes to accidents through forcing married men to drive long distances twice daily, often after working longer hours than the eight hours which the general community considers normal. More quarters would reduce this factor.

Amenities of a standard acceptable to young men who like to make the most of off duty hours would reduce mobility if they were available at, or close to, major army camps. Unfortunately, because of the geographic location of major camps, the most sought after amenity would not be available whatever buildings were constructed. There are just not enough unattached females in Seymour, Townsville, Hahndorf or other towns close to major camps, and as over 80% of private soldiers are unmarried, it follows that they will go to where the females are and

not vice versa. There can be little argument that improved facilities for films, socials, sport (indoor and outdoor) and OR clubs would reduce mobility to some degree. Again, a detailed study of the effect of such improvements on the road toll in particular and morale and welfare in general would be beneficial.

Now that Australia's major Vietnam involvement is over, and policy is to reduce posting turbulence, mobility due to the postings factor has been reduced. This should have a marginal effect on the road toll. A wider aim should, however, include an active programme to encourage soldiers not to drive their own cars when travelling on duty or leave. This could be done relatively easily by making air travel normal means of transport within Australia, instead of rail. Many soldiers who are presently discouraged from travelling by air because they have to 'pay the difference' would fly home in preference to hitch hiking or driving their cars. If this was combined with a reduction in mileage allowance for journeys over, say, 500 miles, most soldiers would probably fly in preference to driving. This sounds a little Orwellian, but in view of the road toll's cost to the Army, it may be desirable. Bearing in mind that allowed travelling time between major capitals is one day, and that a car driven sensibly should take two days to do a 500-600 mile trip, the present system can be seen to be encouraging soldiers to drive excessive distances with insufficient rest time so that their ARL period is not eaten into. This must contribute to accidents, but by having air travel as the normal means this factor would be reduced, probably quite significantly.

Working Hours

Long working hours can be reduced only by high level action to maintain posted strengths of constant workload units at, or close to, establishment levels. There are two ways of overcoming this; first by eliminating some units from the Orbat, and secondly by increasing the number of recruits. The first is undesirable for many reasons, and the second is apparently most difficult to achieve. This factor cannot be reduced materially by the efforts of people in uniform, apart from increasing unit efficiency at a given task so that time spent on it is reduced. The effect of this is marginal on hours worked as there is a limit on making efficiency alone bridge the gap of having one man doing two people's work. Unless high level initiative is forthcoming, little effect on this factor will be seen.

Unroadworthy Vehicles

Some units and formations have taken steps to provide soldiers with free roadworthiness checks from RAEME tradesmen before granting permission to drive long distances on ARL. This is a positive step which could well be adopted as Army policy, although faulty vehicles probably cause few accidents. One life saved would, however, make such a programme worthwhile.

CONCLUSION

Far too much unnecessary suffering and monetary waste is caused by vehicle accidents to Army members. Even if you disagree with the factors or possible remedies outlined earlier, it is hoped that some constructive discussion will be generated by this article. Road safety is everybody's responsibility, and despite the apparent lack of research into this subject there is much that can be done at all levels throughout the Army to make soldiers aware of the problem. It is hoped that you, the reader, will take some positive action within your sphere of responsibility to cut the toll. After all, if it won't be you who is the next statistic, who will it be?

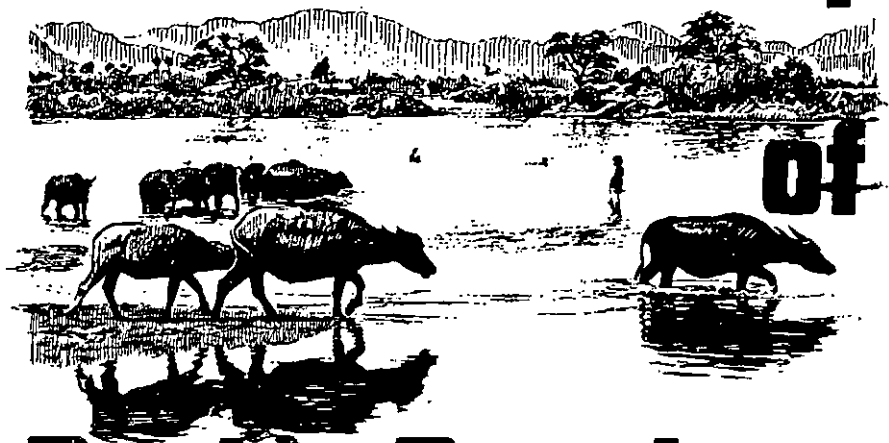
MONTHLY AWARDS

The Board of Review has awarded prizes for the best original articles published in the February and March 1973 issues of the journal to:

February: Lieutenant Colonel A. R. Howes ('Army Officers: Management Training and Education') \$10.

March: Lieutenant C. D. Clark ('Aborigines in the First AIF') \$10.

a brief history



of

Baria Province

*Lieutenant Colonel P. C. Gration, OBE
Royal Australian Engineers*

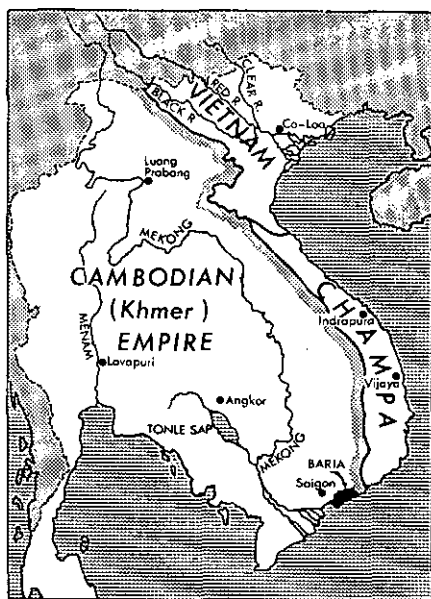
DURING the years of our military involvement in South Vietnam, many thousands of Australian servicemen became familiar with Phuoc Tuy Province, the home of the 1st Australian Task Force from 1966 to 1971. It may be of interest to note something of the past history of the Province, seen through French eyes of some thirty years earlier. This article is based mainly on sections of a document entitled *Mono-graph on Baria Province* written principally by a M. Rouys, Administrator of the Indochinese Civil Service in 1937, and published by the Province Chief Le Thanh Tuong in 1950. The name of the Province

Lieutenant Colonel Gration graduated from the Royal Military College, Duntroon in 1952. He holds Degrees in Civil Engineering, Arts and Economics from the Universities of Melbourne and Queensland. He attended the Staff College, Camberley in 1964 and the Australian Joint Services Staff College in 1972. His regimental appointments have included service in Malaysia (1955-56), Papua New Guinea (1962-63) and South Vietnam (1969-70) as Commanding Officer of 1st Australian Civil Affairs Unit. His present appointment is Staff Officer to the Chairman Chiefs of Staff Committee.

has of course since been changed from Baria to Phuoc Tuy, although the name Baria remains in popular use as an alternative for the Province capital, Phuoc Le.

The significant history of Baria Province starts with its occupation by the Vietnamese in the 17th Century. In earlier times the area was covered in forests and was sparsely inhabited by people of Indonesian origin, of whom the present *mois*

(or 'savages' and sometimes referred to as Montagnards) are the last representatives. At the beginning of the Christian era, Baria was part of the Kingdom of Founan, later to become Cambodia, which occupied the whole of the lower Mekong Valley. The Khmers never populated Baria and were content to let it remain a buffer zone of forests between them and their enemies the Chams, whose Kingdom of Champa to the North occupied most of the area of Central Vietnam. The only relic from that period is the 'elephant bath' just to the East of Long Dien. This is a large



rectangular earth dam with walls approximately fifteen feet high and a circumference of several hundred metres. It is still intact and holding water and is thought to have been used for bathing the elephants of a nearby Cambodian pagoda.

From the fifteenth century, the fighting between the Khmers and the Chams died down, as the Khmers were forced to turn west to face inroads from Siam, and the Chams to turn north to face the Vietnamese who were spreading south from the Red River Valley. By 1471 the Vietnamese had conquered and absorbed Champa and had become the immediate neighbours of the Khmers. Their 'March to the South' continued and Baria was the first part of Cambodia to be penetrated.

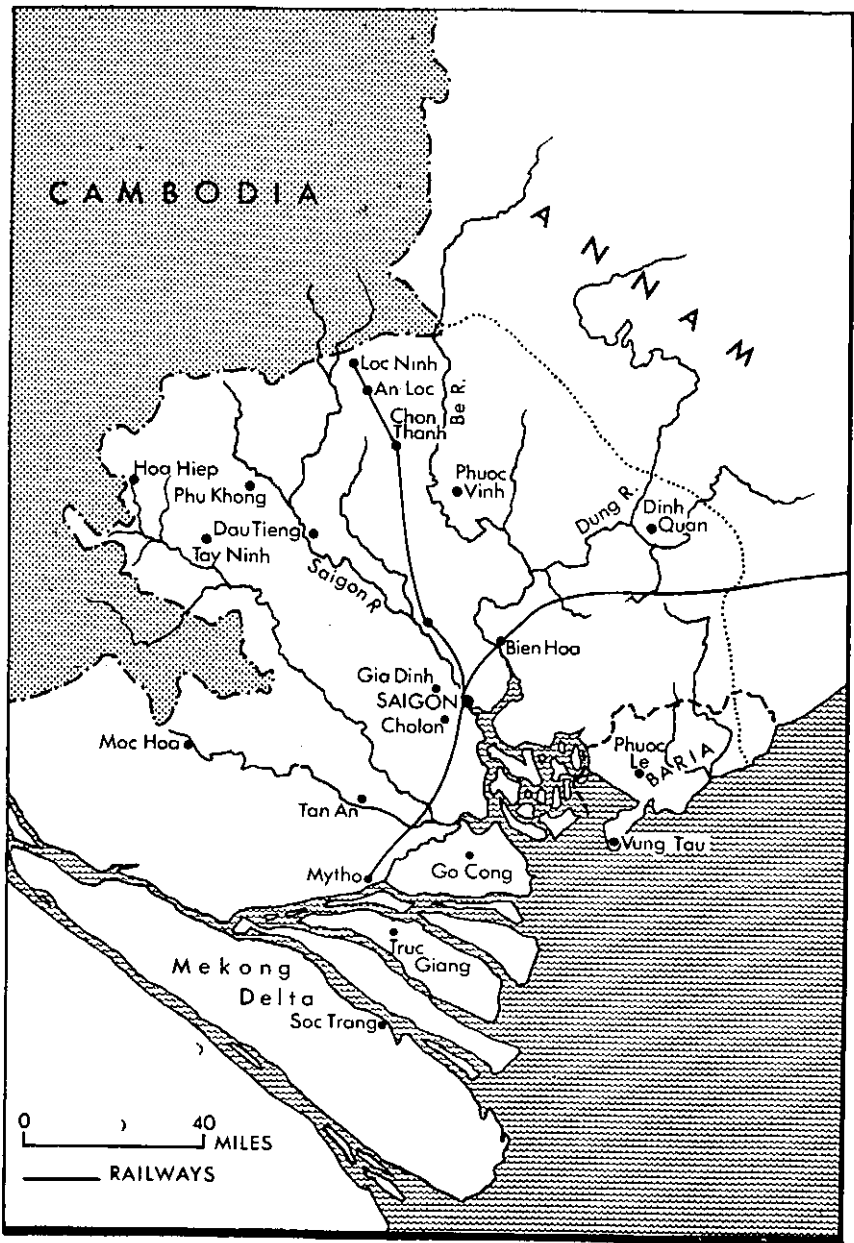
The penetration was at first peaceful in the form of groups of colonists from the narrow coastal plains of Quang Nam and Binh Thuan,

seeking rice land in the uninhabited river delta areas. From 1658, under the pretext of protecting their racial brothers installed in Baria and Bien Hoa, the Vietnamese invaded the area and forced the local Cambodian ruler Neac Onh Chan to become a vassal. In 1971, Binh Vuong conquered all of what was later Cochin China and parts of modern Cambodia, but beaten at Kompong Cham, he could only hold Saigon, Bien Hoa, and Baria. It was in this period that these areas had their first Vietnamese administration. In 1765, the Vietnamese annexed the remainder of Cochin China.

This annexation was no sooner complete than Baria underwent its first experience of revolutionary war in the form of the Tay Son uprising. This lasted for 22 years from 1766 to 1788 and was led by three brothers from the village of Tay Son. It started as a local rebellion not very different from many that preceded it, but spread until it took on the form of a national uprising against the rule of the Mandarins. In 1777 the Tay Son overthrew the Nguyen regime in the south, and in 1786 overthrew the Trinh regime in Hanoi. In 1787 they deposed the Le monarchs who still had nominal rule over the entire country. Thereafter for a brief period, the whole of Vietnam was united under Tay Son rule. Their remarkable success was attributed to their gaining the support of the miserable landless peasants, and the financial support of the emerging merchant class. There is no indication of where the sympathies of the inhabitants of Baria lay, the monograph stating only that:

Baria passed from the hands of the revolutionaries to those of the legitimate heirs several times. All the neighbouring regions suffered from these struggles and the village of Phuoc Tinh still carries the memory of a terrible fire lit by the Tay Son.

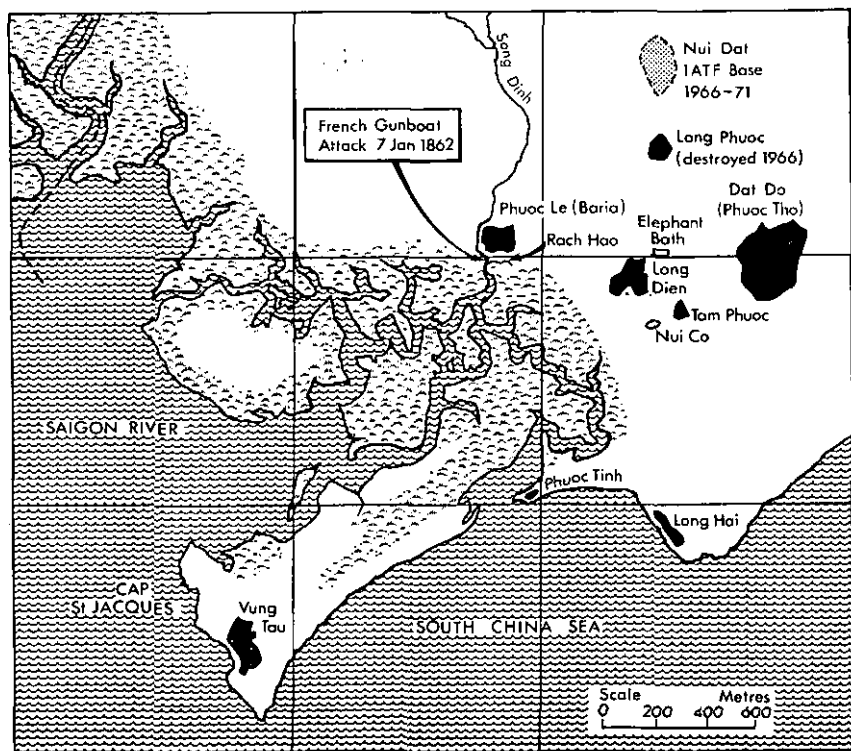
From 1789 there was a long period of stability during which intensive settlement of Baria took place and most of the present day villages were founded. The Vietnamese, being wet-rice cultivators, sought the flat lands of the river deltas to settle. Ba Ria (Mrs Ria), after whom the Province was named, arrived in 1789 from Binh Dinh Province and founded several villages, notably Tam Phuoc, where she died in 1803. After her death she became an object of worship and her tomb was placed on a little hill near the road from Tam Phuoc to Long Hai. The hill took the name of *Nui Co* (ancestress mountain) and a pagoda was built on it.



Cochin China under French Administration.

Baria's second period of revolutionary activity took place in the first half of the nineteenth century commencing in the reign of Minh Mang, 1820-1841. At the centre of this activity were the Christians of Baria, who were persecuted by successive Vietnamese emperors, and gave their support to revolts against these emperors. Christians were numerous in Baria, and a mission had existed in Hung Hoa before 1664. The significance of the year 1664 is that the French *Société des Missions Étrangères* was formed with the mission of evangelizing Indochina. The first organized missionary work had begun earlier in 1616 by some Portuguese Jesuits from Macao. Baria was one of the first provinces evangelized by the Society, but with the same limited success that characterized its work throughout Indochina.

Although the French Church had assisted the Emperor Gia Long in overthrowing the Tay Son in 1803, in Gia Long's lifetime the



Some principal villages of Baria province.

Vietnamese turned against the West and against Vietnamese Christians in particular, who were suspected, with good cause, of helping the French. Gia Long's successor Minh Mang outlawed the Christian Church, in the knowledge that the French Church was advocating (and eventually achieved) French military invasion on the excuse of aiding the oppressed missionaries. Vietnamese Catholics in the south, including those in Baria, were implicated in a rising against Minh Mang which he harshly repressed.

Minh Mang attacked the rebels by land and sea, retook Saigon, and ravaging the rural villages of Baria, put down the revolt in blood. Persecution of the Christians continued under Thieu Tri and Tu Duc* and did not stop until the arrival of the French in 1862.

When the French finally undertook the military conquest of South Vietnam, the campaign started in Baria, or to be more precise at Cap St Jacques (Vung Tau) where on 10 February 1859 the ships of Admiral Genouilly destroyed the two forts defending the mouth of the Saigon River. The French then took Saigon and My Tho but had to suspend further operations because of sickness and fatigue amongst the troops. They resumed after almost two years and on 14 December 1861 took Bien Hoa, after which the Vietnamese forces withdrew to Baria. The French commander, Admiral Bonard, followed up by river and on 7 January 1862 attacked Baria.

The light craft and gun boats went into the attack and razed the defence works at Rach Hao at the mouth of the Song Dinh† while the bulk of the force, transported by ship's boats and sampans, landed at Vung Vang, a hamlet of Long Dien village. A delay caused by the low tide prevented him from reaching Baria that day (7 January 1862). However a strong reconnaissance element got to within two kilometres of the citadel and opened fire, but the decided attitude of the Vietnamese troops, commanded at this stage by Tong-Ty Van-Duc-Dai, and the approach of nightfall caused them to withdraw. This delay, as at Bien Hoa, allowed the Vietnamese to burn alive 300 Christians who were locked in the prison near the Catholic cemetery. In 1920 a chapel was built on the spot to commemorate the martyrs.

On the following day, the Vietnamese forces withdrew east to Phuoc Tho village, which was later to be part of the group of three villages referred to generally as Dat Do, and a centre of support by the population for the Viet Cong. Later they moved north to Long Phuoc village (destined to be destroyed almost a century later by 1 ATF) where they had built strong points covered by entrenchments. They were

* Minh Mang's successors.

† The river flowing through the Province capital.

again forced out, withdrawing north through Cu My into Binh Thuan Province thus vacating all of Baria Province of Vietnamese forces.

Sporadic guerilla warfare against the French continued in the south for most of the nineteenth century. In this period Baria was strongly occupied and a fort 'surrounded with walls and ditches' was built opposite the present day Administration. This is almost certainly the present day gaol. The military garrison was reduced in the early twentieth century when almost all organized Vietnamese resistance to the French had ceased. In 1923, the section of Vietnamese scouts who were still quartered in the fort were sent to Cap St Jacques, 'and the fortified camp left under the sole command of a corporal and ten men, who were themselves relieved some years later'.

All was then sweetness and light.

'Today the camp and surrounding areas are used for games by the young people of the Baria Sporting Societies. It is truly a symbol of the evolution of the spirit. The people up till now continually disturbed by civil wars (for example the Tay Son revolt) could at last give free rein to their peaceful activities. The population increased, villages formed, the cultivated land increased steadily'.

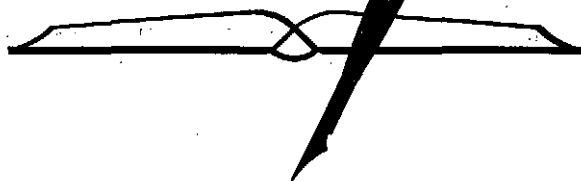
MONTHLY AWARDS

The Board of Review has awarded prizes for the best original articles published in the April and May 1973 issues of the journal to:

April: Colonel D. Willett ('Decision Making and Defence Organization') \$10.

May: Major C. C. M. Peters ('Communism and the Military Efficiency of the Soviet Armed Forces') \$10.

BOOK REVIEWS



DEAR MISS EM — General Eichelberger's War in the Pacific, 1942-1945. Edited by Jay Luvaas (Greenwood Press, Westport, Connecticut, USA, 1972) US\$12.50.

Reviewed by A. J. Hill, Senior Lecturer in History, Faculty of Military Studies, RMC, Duntroon.

THIRTY years ago, tired troops of the 7th Australian and 32nd United States Divisions completed the destruction of the Japanese force at Buna in one of the hardest fights of the New Guinea campaign. Much of the credit on the American side belongs to the commander of 1 US Corps, then Major General Robert L. Eichelberger who, on MacArthur's orders, took personal command of the Americans and led them to success. Buna was the beginning of a wartime career of uncommon distinction, culminating in operations in the Philippines which were described by MacArthur as 'a model of what a light, aggressive command can accomplish in rapid exploitation.'

Throughout his service overseas, Eichelberger wrote daily to his wife Emma, the Dear Miss Em of the title, '... conversational, candid letters, that revealed his hopes and frustrations, experiences and opinions ...'. He kept a diary and after the war, having published *Our Jungle Road to Tokyo* he dictated copious recollections and opinions

on his experiences in the Pacific. It is from this material that Professor Jay Luvaas has quarried an unusual and valuable commentary on MacArthur's war. Eichelberger was nothing if not candid about himself and any other who would be of interest to his wife, especially MacArthur, the Big Chief or Sarah, short for Sarah Bernhardt. He had an agreed nick-name for most of the major figures for use when he wanted to get material of special interest past the censor. Eichelberger was too good a soldier to give away anything of value to the enemy but he often found it necessary to unburden himself to Miss Em about 'the play of personalities' (his term) in the higher ranks of the US Army. As a study in the psychology of command, this book may well be unique but it is happily balanced with humour and military horse sense — Eichelberger's ideas on command in battle. That he succeeded against odds in the bad days of 1942-43, established an outstanding reputation as an administrator at Hollandia and elsewhere, crowning his service with swift successes in the Philippines, should attract wide attention to these letters. Inevitably, much of *Dear Miss Em* is about MacArthur. Eichelberger, who was in his sixtieth year when the war ended, had served under MacArthur in the War Department. Like MacArthur, he had been Superintendent of West Point which he left to command a division in 1942. He was to have taken a corps to North Africa, but owing to the refusal of an American general to serve under Australian command, he was switched to the SW Pacific. Every step along the road from Buna to Tokyo lay under the shadow of the aptly nicknamed Sarah who, it appears, was widely regarded as selfish, even vindictive. In the letters to Miss Em, while there is ample evidence for this view, MacArthur is given full credit as strategist and defender of the Army's interests against the US Navy. The blaze of publicity surrounding Eichelberger as a result of Buna led to an incredible scene when MacArthur, having sent for Eichelberger, burst out: 'Do you realize I could reduce you to the grade of colonel tomorrow and send you home?' 'Of course you could'. 'Well, I won't do it.' Even the citation for his DSC was designed to swing the spotlight elsewhere: '... for precise execution of orders'. Thereafter Eichelberger, who had a natural desire for recognition of his own and his troop's achievement, was careful to avoid publicity. It was not until as commander Eighth Army, his operations won and held MacArthur's esteem by contrast with the slowness and caution of General Krueger's Sixth Army, that the sun of Sarah's favour shone daily on his endeavours. Indeed, the mutual

dislike and jealousy existing between Krueger and Eichelberger may well have been used by MacArthur to sharpen the competition between them.

As would be expected, Eichelberger reveals much of himself in his letters; a commander deeply touched by the courage and sufferings of his men yet with enough iron in his soul to relieve two divisional commanders who had been his classmates at West Point; meticulous in logistical planning but letting the staff get on with the job once he had given his orders. The editor has not failed to show how his staff, from the devoted Chief, Brigadier General Clovis Byers down, worshipped him even to the extent of secretly sending citations for a Congressional Medal of Honour home after Buna. The War Department sought MacArthur's approval for this supreme honour; it was refused. Three requests for Eichelberger to command an army in NW Europe were similarly refused.

Eichelberger commanded from the front, unlike MacArthur who failed to make even one visit to Buna and whose staff is frequently criticised in the letters for following MacArthur's example. Despite his age, Eichelberger was constantly on the move and often under fire; as an army commander he had his own B17 in addition to a 60-foot launch. Both were called Miss Em.

It is pleasing to note Eichelberger's high opinion of our own commanders and troops, in spite of MacArthur's initial instructions to pay his respects to the Australians then have nothing more to do with them! He got on well with Northcott, the CGS; the letters reveal the respect and liking which existed between Eichelberger and his superior at Buna, Sir Edmund Herring. In an order of the day after VJ Day, Eichelberger said: 'Today . . . my mind turns back nearly three years to the first ground force victory in the bloody swamps of Buna. Once more my memory recalls those wonderful Australians who fought side by side with us in those bitter days and contributed so much to victory . . .'.
□

The book is admirably produced, misprints are rare and the maps are of the excellence one expects from American sources. Jay Luvaas, who is Visiting Professor of Military History at West Point, 1972-73, has edited the letters with skill and sympathy; his notes must be read with the text not only for the light they throw on men and events but also for the correctives he applies to some of Eichelberger's statements. When, if ever, we have some Australian commander's letters, let us hope they find as able an editor. □

COUNT YOUR DEAD, by John Rowe. Wren edition, 1972. pp. 223.

Reviewed by Lieutenant Colonel C. F. Thomson, School of Infantry, Ingleburn

AFTER I had read John Rowe's *Count Your Dead* for the first time, I handed the book to a young, fellow patient in the hospital where we were both temporarily detained. Later, he said wearily, 'You know, it's a strange paradox of community justice that public opinion, in its indictment of the Allied cause in Vietnam, should be so indiscriminate. It seems to me that lack of discrimination between foe and non-combatant is the very argument that sustains the radical commentator. Surely, in every controversy there are at least two opinions, and in between them, somewhere, the truth.'

His next comment came before I had digested the first. 'I'm compelled to believe', he remarked, 'that the stronger the protest or denial, the more obscure becomes the truth. Not even when it becomes patently manifest, will truth ever induce the retraction of a statement or opinion that is too loudly voiced — so, as far as hope of rational discussion is concerned, you might as well save your breath to cool your pudding.'

Predisposed, as I had been, to reviewing the book with the jaundiced eye of the accused, I now felt obliged to read it again with what might pass for an open mind. I was amazed to find, at this second reading, that there was less matter for indignation than I had thought. Whether through accident or author's design I cannot vouch, but one is able to deduce that the dilemmas faced by the hero, and all the principal characters, were very real.

Bill Morgan's conscience, while he remains an infantry company commander, has simple, clear cut choices to make, and there is little to cloud his relatively straightforward duty of leading his troops in battle against a clearly identifiable, armed, and hostile enemy. Then, suddenly reassigned as the brigade's Civil Affairs staff officer, he is besieged by divided loyalties and a slow awareness that right is being sacrificed to statistics and to the dreaded Efficiency Report. He protests; often just short of getting himself fired and once to the point of actually being reassigned.

All this might give the impression that Morgan is the flower of moral righteousness in the morass of indiscriminate attrition that

popularly portrays the American war machine at work. Yet John Rowe does not allow his hero to go all the way to martyrdom. Here is an unexpected hint of moderation. Morgan is unmoved by the plausible philosophy of the French planter, Junod, with his restrained expressions of hostility against American intervention where French wisdom had not succeeded. No, Bill Morgan defends his country's stand — or at least Morgan's interpretation of it, and one is left with the impression that the war's politics are less important to him than the here-and-now responsibilities that face him.

That the hero is not fired into martyrdom and public notoriety implies, quite properly, that a soldier's conscience is a private, rather than a public concern. To have disassociated himself, physically, from the first abhorrent situation would have been to divest the plot of every vestige of reasonable human behaviour. In the first place, this would have been inexcusable, misinformed humbug because, as the author well knows, there were many Bill Morgans in every strata of authority. In the second place, to have permitted Morgan full rein to his moral indignation from the outset would have terminated the book at page ten.

Morgan's heroic principles, both tactical and moral, are portrayed as being radically at odds with those of his associates — yet there is a certain familiarity about them. Perhaps this is because they bear a marked similarity with those officially enforced by our own Australian task force in Phuoc Tuy Province.

Colonel Robbins, the brigade commander, has to make the sort of decisions, at short notice, that mortals in other endeavours would make only after much fasting, abstinence and many days generally wandering about the wilderness — if then. Rowe makes this point very well, and implies that the problems encountered by Colonel Robbins are difficult enough by themselves without having also to contend with a body count criterion for success. But is this real, or imagined? I get the feeling that the divisional commander would have been happier with the true facts rather than the contrived garbage fed to him at briefing time.

There is something for the regional appetite, too, in the *contretemps* between off duty Americans and Australians in Vung Tau. This did not ring many bells of truth because I have never had the pleasure of seeing my fellow Australian officers become unduly emotional about anything except, perhaps, the shortage of beer.

I rate *Count Your Dead* as interesting reading. Superficially, it panders to the public taste. It wouldn't sell otherwise. Deep down there is a certain understanding that armies have no monopoly on the baddies, and that the inscrutable North Vietnamese could as easily lead their radical Western supporters as John Rowe's South Vietnamese so obviously lead their counterparts. □

THE ANZAC BATTALION 1970-71, edited by Major A. R. Roberts, (Printcraft Press Australia 1972).

Reviewed by Major R. R. Hogarth, Army Headquarters, Canberra.

2 RAR/NZ (ANZAC) Battalion has produced a very good written record of its second tour of South Vietnam. The book is similar in format (down to the same number of pages) to that produced after their first tour. Operational maps have, I believe wisely, been appended to the main volume rather than separately bound as was done with the first work.

The book, financed from Regimental Funds and private subscription, is intended as a memento of the tour for the members of the battalion. It contains what have become fairly standard components of these works: a pithy potted history of the elements of the battalion (which is particularly good); a roll of the members of the battalion (some 1317, which provides food for thought); excerpts from the battalion magazine; short summaries of operations and results; company contributions and, mainly, photographs. Many of the black and white photographs are very good as are some of the line drawings. Particularly appealing I found the 'Chow Duck' strip and extremely admirable the pioneer who offered 'Saigon Tea' for the bar. Printcraft, printers to the Regiment, have made their usual professional job of the production.

As the book is intended for members of the battalion, the non-member will obviously benefit less than fully from the real meaning of many comments but this is of little consequence. For such a reader the work contains, in as unemotional form as is possible, a look at the Vietnam commitment from the soldier's viewpoint. Here is the approach and the attitude of the soldier to the commitment. This view of the war

as a war and devoid of emotional and political comment is of significant potential value. It reveals very clearly what the soldier saw in the war but, consistent with a soldier's role, offers no political theories or answers. Indeed this is the general value of the various unit pictorial histories of the Vietnam war.

The battalion's production is of a high quality and compares favourably with the best of the unit works on Vietnam. One might suggest that more appropriate formats for such publications have been evolved since the one used by the first 2 RAR/NZ (ANZAC) battalion and maintained in this work. Perhaps more photos and less words would better suit the aim and record events without the verbal constraints a soldier must, quite rightly, bear.

Nonetheless, as a memento the work does very well and the side benefits of adding the dust, sweat and laughter (but, tastefully, not the blood) to official histories will, one day, be of significant value. Copies may be obtained from the Adjutant, 2 RAR, Lavarack Barracks, Townsville. □