Defence Force Journal
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Managing Editor
Mr M. P. Tracey

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Managing the Defence Resource

Dear Sir,

Mr Dreitkopf wrote an article in your November/December Journal entitled “Maximising Effectiveness of the Defence Resource”. The article is a useful start in opening up the topic.

He refers to the internal and external processes for managing the Defence resource.

There are some broad comments I would like to make on the resource control process. The external scrutiny the Department is subject to seems detailed and concerns itself with reviewing Defence resource decisions and their implementation. Defence personnel need to lead the scrutineers through the reasons for decisions and to provide comment on second guessing of the decisions. This takes considerable effort on both parts. Any shortfall in effort or time can lead to incorrect conclusions in issued scrutiny reports, leading to further effort and adversative attitudes. Much of this effort could be spent better in examining the framework influencing Defence decisions rather than the decisions themselves.

Some framework structures worthy of investigation are the influences of finance regulations and our interpretation of the Westminster vote control system on the efficiency of Defence resource usage. As one example, the allowance of some flow on of expenditure in the UK from one financial year to the next seems to bring flexibility.

The influence of Public Service structure, training and recruiting might bear investigation as could that of Government policies for industry and employment. Your readers doubtless could offer others.

Regarding the internal review process, as a vote co-ordinator I find there is too much concentration on balancing of the budget and too little on Departmental and Service policies affecting resource usage. Posting and re-engagement policies for servicemen affect productivity and training costs and their effect on resource usage could be examined vigorously. The effect of maintenance contractors arranging supply of their own spares rather than relying on Defence stockholdings could be looked at also.

Our finance staff spend considerable time investigating “what if” budgetary questions and are trying to develop better ways to determine the direct costs of the different Defence activities. Some of us would like to be supported by business advisers. The business adviser concept suggests increased delegation of expenditure and contractual powers and of other administrative decision making. Many of our current administrative staff would need wider experience and training to meet the function and possibly could be supplemented with accountants from industry.

Without some changes we might continue to achieve “control” of expenditure without optimising the “cost effectiveness” of it or identifying an accountability for this.

D.S. FERRY
Captain, RAN
Director of Naval Aircraft Engineering
THE EFFECT OF PERSONNEL LOSSES ON DEFENCE FORCE OPERATIONAL CAPABILITY

By Wing Commander C. L. Mills, RAAF

Introduction

PERSONNEL losses affect the operational capability of the Armed Services more than any other factor, since fluctuations in loss rate cause substantial variations to the size and quality of the operational force. This article examines the effects of loss rates on the workforce component of the Services. Examples drawn from the RAAF are used as I am more familiar with the manpower aspects of this Service. Notwithstanding, the theory is equally applicable to the other Services. The application of the theory to observations taken from the recent past indicate that substantial operational capability may have to be surrendered in the near future unless prompt remedial action is taken.

Assumptions

Some assumptions are made. Only volunteer Forces are considered; ie recruitment and separation are voluntary. One of the central factors is that Force size is constant and that diversion of manpower into the training component must be made within the current allocation of manpower and hence at the expense of the operational force. This constraint has significant effects as we shall see. The term 'losses' includes separations from the Service from any cause; eg resignations, deaths, retirements, medical discharges, voluntary refusal to re-engage etc.

The terms 'conceptual', 'model', and 'mathematical' involve nothing more complicated than high school arithmetic and a little algebra. If you wish to make some calculations of your own, you will find the equations easy to follow, although a simple four function calculator will make the mathematics a little easier. The term 'Force' is used generically instead of 'Navy', 'Army', 'Air Force' or 'Defence Force'.

A Conceptual Model of Service Manpower

Military forces typically have a unique approach to manpower management. In the great majority of cases, new members of the Services are recruited into the lower echelons and progress through their careers by promotion. Thus, the Services have implemented a 'vertical' manpower system. By contrast, other employers recruit into all levels of the organization. This is usually called 'lateral' recruiting. A combination of vertical promotion and lateral recruiting is commonly used by non-military organizations to effect the desired manpower structure.

Figure 1 shows a conceptual model of the Service manpower system. Applicants from the community volunteer to become members of the Service. Once accepted, the recruits are trained and graduate to become working mem-
FIGURE 1: A CONCEPTUAL MODEL OF SERVICE MANPOWER
bers of the Service. The total number in the Service is fixed and is divided into two components: training-force and work-force.

In the training-force component, recruits enter the training system and progress towards graduation. Some are 'core' trainees who will graduate into the work-force. Others fail to meet the required standard and are lost from the training system.

The work-force component is quite straightforward. Growth in the workforce and losses from the workforce are replaced by graduates from the training force. These graduates enter at the lowest ranks and progress by promotion to higher ranks.

The division of the allocated manpower into work-force and training-force is uniquely determined by the following parameters:

- loss rate from the work-force;
- the requirement for growth in the work-force, which may be negative;
- the ratio between recruits and graduates, hereafter called the 'start-to-end' ratio; and
- the length of training.

Figure 1 shows the division of the allocated manpower into the work-force and training-force components. The 'effective' force is that component of the manpower that is left after the training-force has been deleted from the total allocation. Note that the effective force is reduced by:

- high losses from the work-force;
- growth in the work-force;
- high failure rates in the training-force, represented by a high start-to-end ratio; and
- long training times.

In addition to these factors, other factors change the effects of work-force losses; these are called loss rate 'multipliers' and affect the size of the effective force. These factors are:

- the effect of recruiting rates on the quality of recruits;
- the length of post-graduate training conducted in the work-force; and
- the student to instructor ratios for basic training.

The recruiting quality factor is the most subtle of the loss rate multipliers. The reason is that recruits are placed in gradation order by recruit centre tests and the more recruits taken, the lower the quality of the last to be taken. As work-force loss rates increase, the number of replacement recruits increases and thus the average quality of recruits falls.

Economic factors magnify this effect. Good economic conditions in the community tend to increase losses from both the work-force and surprisingly, from the training-force. The work-force losses arise when the community competes for the highly trained Service member by offering more attractive conditions of employment. In the same circumstances, trainees are not as motivated to pass Service courses, since they know that if they fail they can still find satisfactory employment in civilian life. The start-to-end training ratio consequently increases. Finally, fewer civilians volunteer for employment in the Services so there is a consequent drop in the quality of the applicants which in turn increases training failure rates.

The overall effect of good economic conditions is an increased number of trainees required, higher training failure rates, and lower average quality of applicants. In these circumstances, the Service can choose to increase the number of inductees to maintain an absolute standard, or reduce the graduation standard. In the former case, the size of the work-force is reduced; in the latter, the quality is reduced. In either event, the effectiveness of the work-force is reduced.

Post-graduate training is required for almost all Service occupations. Basic training provides elementary skills, then individuals must be trained for their specific area of employment. For example, a pilot must receive conversion onto type after the basic pilot course, and this conversion may take several months. High loss rates from the work-force remove trained operators from the operational force, increasing the number of basic trainees who must receive post-graduate training before becoming effective work-force members. Thus, high work-force wastage rates and long post-graduate courses reduce the effective size of the work-force.

The student to instructor ratio also affects the effective work-force. As the number of students rises, more instructors are required to achieve a constant instructor to student ratio. Personnel on instructional duties are not available for work-force duties and must be deducted from the operational component to determine the effective force size.

The student to instructor ratio also affects the effective work-force. As the number of students rises, more instructors are required to achieve a constant instructor to student ratio. Personnel on instructional duties are not available for work-force duties and must be deducted from the operational component to determine the effective force size.

A multiplier effect can be discerned for instructional staff manning. When work-force loss rates are high and student quality is low, the required absolute standard may be achieved by more intensive training. Generally, this means
increasing instructor to student ratios for lower quality students and vice versa. Since this is a 'second order' effect, it is not considered further in this article.

In summary, high work-force loss rates, growth in the work-force, high student failure rates and long training times increase training-force sizes at the expense of the operational-force. The effect of the work-force loss rates is multiplied by effects on student quality, the requirement for post-graduate training and the requirement for a given number of instructors per student.

A Mathematical Model of Service Manpower

So far, I have commented qualitatively on the effects of work-force loss rates (and other factors) on the division of a manpower allocation into a training-force and a work-force. However, the significance of the effects cannot be gauged without a quantitative evaluation. To complete such an analysis, a mathematical model is helpful.

This section of the article describes a mathematical model of the conceptual model. Once in place, the mathematical model can be treated as a 'black box' and be 'fed' with variables such as the work-force loss rate, start-to-end ratios, training years etc. The output from the black box is the division of the allocated manpower into work-force and training-force components for a given set of known, estimated or imagined parameters.

Evaluation demands a criterion. In the case of the mathematical model, the 'Effective Percent' of the allocated manpower will be the criterion. This figure is determined by subtracting the 'non-effective' personnel from the allocation and expressing the 'effective' remainder as a percentage of the total manpower allocation. This particular criterion is useful as it allows simple comparisons to be made of the net effect of values of the parameters used for different types of manpower. For example, it is possible to compare the Effective Percent for the pilot component with the Effective Percent of the non-technical airmen component of the RAAF.

Appendix 1 shows the derivation of the mathematical model which divides an allocation of manpower into work-force and training-force components. The inputs to the model are:

- total allocation of manpower;
- loss rate from the work-force;
- increases in the work-force size;
- start-to-end ratio of the training-force strengths; and
- years of basic training.

Outputs of the model from Appendix 1, equations (4) and (3) are training-force and work-force sizes respectively.

The basic model may be extended to incorporate the loss multipliers: student quality, instructor requirements and post-graduate training. Appendix 2 shows a calculation sheet that implements the extended model, together with an example. If you wish to make your own calculations, copy the blank page to provide work sheets. Tables 1 to 6 show the extended model implemented as a 'Visicalc' application. In each case, the values used have been determined from empirical observations from the 'real RAAF world' averaged over the past few years.

The student quality factor has not been defined mathematically or by empirical studies and is only a guess, incorporated into the model to demonstrate the effect. The extended model takes the difference between the nominated and the actually observed loss rate, then multiplies that variation by both a 'student quality' factor and the calculated number of students to determine the variation to the number of students required. For demonstration purposes, a student quality factor of 2.00 has been chosen in all cases.

Actual student strength is determined by adding the variation calculated from the student quality factor to the basic number of students. Adding the 'Trainees' and 'Q-Factor' columns together in Tables 1 to 6 gives this result.

Calculations of the number of instructors required is relatively straightforward. The actual student requirements are multiplied by the student to instructor ratio to yield the required number of instructors.

Post-graduate student population can be determined in two ways. The simplest is to simply add the post-graduate training time to the basic training time. The disadvantage of this method is that some post-graduate students will be shown as being lost through training failures. Since this is rarely the case, an alternative method is used. The training graduations equal the losses from the work-force plus growth. Multiplying the number of graduations by the
length (in years) of the post-graduation training yields the number of manpower positions occupied in post-graduate training.

The ineffective training component of the manpower allocation is calculated by adding the following columns of the extended model: Trainees, Q-Factor, Instructors, Post-Graduates. The work-force is determined by subtracting the ineffective training-force from the manpower allocation.

Finally, the criterion value of Effective Percent is calculated by dividing the effective workforce by the total manpower allocation and multiplying the result by 100.

Examples of the Use of the Mathematical Model

As noted previously, Tables 1 to 6 are implementations of the mathematical model which show the actual effects of varying work-force loss rates on the Effective Percent of the manpower allocation available for operational duties.

Six examples are given to show the effect of different situations:

<table>
<thead>
<tr>
<th>Table</th>
<th>Manpower Type</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PILOT</td>
<td>High training loss rates</td>
</tr>
<tr>
<td>2</td>
<td>ENGINEERS</td>
<td>Long training times</td>
</tr>
<tr>
<td>3</td>
<td>TECHNICAL AIRMAN</td>
<td>Intermediate loss rate and training times</td>
</tr>
<tr>
<td>4</td>
<td>NON-TECHNICAL AIRMAN</td>
<td>Intermediate loss rate and low training times</td>
</tr>
<tr>
<td>5</td>
<td>TECHNICAL AIRWOMEN</td>
<td>Intermediate training times and high loss rates</td>
</tr>
<tr>
<td>6</td>
<td>NON-TECHNICAL AIRWOMEN</td>
<td>Low training times and high loss rates</td>
</tr>
</tbody>
</table>

Table 1 shows the direct entry Pilot stream where recruits enter the RAAF for 15 months of pilot training, graduate and are converted onto a specific aircraft type. Pilots courses have very high loss rates, data collected over many years indicating that only 50% of entrants pass. At present, loss rates from the work-force are relatively low at 5.4% PA. In the past, loss rates have been higher at about 7% PA. These low loss rate levels are expected to return for three reasons: the airlines are recruiting significant numbers of RAAF pilots, a concentration of personnel in the 20+ years of service is accumulating due to recruiting for the Vietnam conflict 20 years ago and the economy is expected to improve. A return to the 7% PA loss rate for pilots in this stream would reduce the Effective Percent of the work-force from 83.40% to 76.77%, a loss of about 40 operational positions.

The effect of a long training time is shown in Table 2. This table represents degree trained Engineers streaming through the RAAF Engineer Cadet Squadron. They take 4 years to complete an engineering degree and about 6 months to become usable RAAF Engineers. Note that few instructors are required since most academic work is completed at civilian universities. Again, the wastage rates are expected to rise because of high populations in the 20+ years of service and an expected improvement in the economy. If a 9% loss rate as previously experienced eventuates, the Effective Percent of the work-force will drop from 69.61% to 62.59%, about 35 work-force positions.

Technical airmen are trained either in the adult training or apprenticeship system. The adult training scheme is represented in Tables 3 and 4 and includes such skills as airframe, engine, instrument and armament technology. Radio trades are not shown as the student failure rates are much higher. The resultant Effective Percent of the work-force is 83.14%. In previous years, the loss rate for this group of airmen has been about 8% PA. A return to this loss rate would reduce the Effective Percent to 77.94% and would reduce the work-force by almost 330. Even a rise of 1% in loss rate would cause an eventual loss of 166 positions from operational Units.

Non-technical airmen support the operations of the RAAF through functions in mustings such as clerks, cooks, drivers, telephonists, computer operators and so forth. The training time for non-technical airmen is significantly shorter than other manpower streams in the RAAF as the skills required are not as extensive.
The reduced training time yields a much higher Effective Percent of the work-force: 94.56%. If loss rates rise to 8% as previously observed, the Effective Percent reduces to 92.61% and 156 positions are lost from the work-force.

Tables 5 and 6 show the effects of employing females. Special mention of this trend is made later in the article. Loss rates for women were once extremely high, but have reduced to be about twice the rate of their male counterparts.

At this stage comment will be restricted to the effect this has on the work-force. Tables 3 and 5 and tables 4 and 6 are identical except for the work-force loss rate. In the case of technical (non-radio) airmen, the Effective Percent of the work-force is 83.14% for males and 68.03% for females. Similarly, for non-technical airmen, the Effective Percent is 94.48% for males and 88.63% for females. If these manpower streams were composed entirely of females, the
The effects of the employment of females on the Services

These comments on the loss of work-force positions caused by the employment of females may be seen as a slight on the capabilities of women in the Service and as a discriminatory attitude. This is not the case as experience continues to show that females, on average, spend substantially less time in the Service than do men.
The RAAF has been steadily increasing the number of women in the Service for many years. There are no reservations about employing women as far as their individual capabilities are concerned, in fact there is some evidence that they are slightly more conscientious than their male counterparts and consequently training failure rates are slightly lower. It may be opening a 'Pandora's Box', but the Service is finding that the average female entrant is superior to the male by many standards. This is perhaps because the better women are seeking the 'non-traditional' jobs. Opening new manpower streams to the employment of females has an additional benefit in that it widens the civilian recruiting pool and results in a higher quality recruit. Furthermore, employment of women in the Services increases the social equity.

### TABLE 5: LOSSES EFFECT MODEL: TECHNICAL AIRWOMEN (NON-RADIO)

<table>
<thead>
<tr>
<th>Work-force Factors:</th>
<th>Average Loss Rate:</th>
<th>Increase:</th>
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<table>
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<th>Training-force Factors:</th>
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<tbody>
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<td>Training Years: 1.85</td>
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</table>

<table>
<thead>
<tr>
<th>Multiplier Factors:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Quality: 2.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Instructor Ratio: 0.33</th>
<th>Post Graduate Years: 0.50</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Loss-Rate</th>
<th>Trainees</th>
<th>Q-Factor</th>
<th>Instructors</th>
<th>Post-Grads</th>
<th>Work-force</th>
<th>Effective %</th>
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### TABLE 6: LOSSES EFFECT MODEL: NON-TECHNICAL AIRWOMEN

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<th>Multiplier Factors:</th>
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<td>Student Quality: 2.00</td>
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<table>
<thead>
<tr>
<th>Instructor Ratio: 0.33</th>
<th>Post Graduate Years: 0.25</th>
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<table>
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<th>Loss-Rate</th>
<th>Trainees</th>
<th>Q-Factor</th>
<th>Instructors</th>
<th>Post-Grads</th>
<th>Work-force</th>
<th>Effective %</th>
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<td>310</td>
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<td>84.57</td>
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<td>55</td>
<td>246</td>
<td>326</td>
<td>6681</td>
<td>83.52</td>
</tr>
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</table>
in the community. Thus, there are benefits gained from employing females, both to the Service and to the community.

Just as there are benefits, there are also costs. Over the past few years, the RAAF has accumulated reliable statistics on female loss rates. These have been substantially higher than male loss rates. The trend has been for female loss rates to reduce as community attitudes towards working women change. However, indications based on the available data are that it will be many years if ever, before female loss rates reduce to male loss rates.

In an all volunteer force, with voluntary enlistment and voluntary separations, nothing can be done to equalise loss rates of males and females. Indeed, to place restrictions on female separations from the Service, that are not placed on males, would be discriminatory and would probably contravene the new anti-discriminatory laws. Thus, the Services must accept a differential loss rates for males and females.

Assuming that males are exactly equivalent to females in capability, but that females will exhibit a higher loss rate from the workforce over the foreseeable future, the effect of the increasing employment of women in the Services will be a decreasing Effective Percent of the work-force. Because of the substantial differences on male and female loss rates, the cost may outweigh the benefits mentioned above.

The question is: who will pay the costs? This is a National question and the Nation has three options. Firstly, women could be discriminated against on entry to and departure from the Service. This is against Government policy and is clearly unacceptable. There are thus only two practical options. The manpower of the Services can be held constant while the number of women in the Service is increased, with the Effective Percent of the work-force decreasing and operational capability being lost. Alternatively, additional manpower could be provided to the Services to offset the loss of Effective Percent of the work-force. This would either increase Defence Force expenditure or force a variation to the present funding apportionment patterns.

Certainly, there are community benefits in employing women in the Service. However, mathematical analysis shows that there is a resultant cost which must be borne by the community, and this cost can only take two forms: reduced Defence Force capability or increased Defence Force costs. The conscious decision to introduce more females into the Services should only be made in the knowledge that one of these options must be chosen.

The Causes and History of Loss Rate Variations

I have shown that in a Service with a fixed allocation of manpower, changes in loss rate inevitably changes the division of the available manpower between the work-force and the training-force. This section of the article examines the variation in loss rates and the effect on Defence Force capability.

Do loss rates vary significantly? In a volunteer force, each individual free from return of service obligations is subject to two pairs of related forces which affect the decision to stay in the Service or rejoin the civilian community. Within the Service, one force attracts and the other repels. Matched to these two forces are forces from the civilian community which also attract and repel. The balance of these four forces decides whether the individual joins and/or remains in the Service.

Pay rates, the acquisition of skills, camaraderie and a sense of service to the country are examples of forces that attract and retain individuals in the Service. On the other hand, factors such as frequent moves, separation from the family, the requirement to submit to military discipline and lack of control over short term destiny are detractors. In the civilian community, mirror image forces act in the opposite direction. For example, uncertainty of employment, low wages for juniors and unexciting jobs cause dissatisfaction with civilian employment. Freedom of employment, stability of home life and higher salaries for the more senior members, make civilian employment attractive. Each member assesses the balance of forces according to individual values.

The balance of attractive and repulsive forces varies with changes in the economic fortunes of the Nation. Conditions of Service are relatively stable and tend to lag community changes. The economy is much more volatile. When the economy is expanding, new jobs are created and salaries and wages rise. An exodus from the Services results. When the economy is in decline, guaranteed employment and relatively high salaries in the Services attract and retain individuals and wastage rates fall. A change in conditions of Service can also affect loss rates. For example, a substantial pay rise in compar-
FIGURE 2:
OFFICER CORPS LOSS RATES

- = Officer Corps Loss Rate
□ □ = Officer Corps Observations

Percentage Loss Rates

Years
5 6 7 8 9 10 11 12 13
FIGURE 3:
AIRMEN CORPS LOSS RATES

- = Airmen Corps Loss Rate
○○ = Airmen Corps Observations

Percentage Loss Rates
FIGURE 4:
AIRWOMEN CORPS LOSS RATES

- = Airwomen Corps Loss Rate
○ ○ = Airwomen Corps Observations

Percentage Loss Rates

63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84

Years
ison with the community will attract and retain members. Conversely, a loss of a condition of service such as pension commutation rights would increase loss rates, especially in the short term.

Figures 2 to 4 demonstrate these effects; the diagrams show the RAAF percentage loss rates by year for the last 20 years. For the Officer Corps (Figure 2), the loss rate has varied between 5.93% and 11.03%, with an average loss rate of 8.39% and total losses exceeding 5,800.

For the Airmen Corps (Figure 3), the loss rate has varied between 6.22% and 12.48%, with an average loss rate of 8.55% and total losses exceeding 29,000 for the two decades. The Airwomen Corps has suffered considerably higher loss rates. Figures 2 and 3 are drawn on the same scale; note that in the Airwomen Corps (Figure 4), the scale has to be extended to 50% loss rates per annum. The Airwomen Corps loss rates have varied between 14.20% and 45.17% with the losses exceeding 6200 for the
past 20 years. As mentioned before, even though airwomen loss rates have declined over the years, the data indicates that it will be some time, if ever, before the Airwomen Corps loss rates are substantially the same as for their male counterparts.

The shape of the loss curves in Figure 2 is particularly interesting. There is a high degree of correlation between the Officer and Airmen Corps loss rate plots, indicating that the same forces are modulating loss rates. A cyclic pattern is also evident, with the frequency being about 4 years, which corresponds with the cyclic fluctuations in the economy. The Airmen Corps loss rates tend to lag about a year behind the Officer Corps loss rates, probably because officer separations are virtually immediate while airmen must wait for their re-engagement period to end before leaving the Service. Airwomen loss rates show a different pattern, indicating that different forces affect their loss rates. For the Officer and Airmen Corps, note that since the loss rate peak of 1973 caused by the 'easy out' policy after the cessation of the Vietnam conflict, plus the introduction of the DFRDB scheme, loss rates have steadily declined.

The future loss rates for the three Corps are difficult to predict, however, there are indications that they will increase. A statistically significant increase (18.35%) in the Officer Corps loss rate occurred in 1983/84 in comparison with the 1982/84 figures. The Airmen Corps loss rate on 1983/4 decreased over the 1982/3 figures by 2.7% while the Airwomen Corps loss rates decreased by 22.13%. The 1982/3 figures seem to lie at the bottom of a cyclic trough. Given the lag between Officer and Airmen Corps loss rates, and indications that the economy seems to be improving, a rise in loss rates seems probable. Thus, historically and empirically factors point to an increase in loss rates Data from 1984/5 is likely to validate the trend.

The Modulation of Force Capability by Loss Rate Variations

I have shown that from a theoretical point of view, in an organization with a fixed allocation of manpower and where manpower is trained from a sub-allocation of that manpower, changes in the work-force loss rates will change the ratios between the work-force and training-force strengths. We have also seen over the past two decades that loss rates are quite volatile with variations in loss rates exhibiting both trends and cyclic variations.

Figure 5 shows a representation of the modulation of force capability by cyclic variation of loss rates. Given a fixed manpower allocation, as loss rates vary, the ratio between workforce and training-force must vary inversely. Since Force capability depends to a great degree on the work-force manpower resource, Force capability must also vary inversely with loss rates.

How large is the effect? Assume that 250 trained people represent the operational output from a squadron, a ship's complement or two companies of soldiers. For the cases given in Tables 1 to 4 and for the proposed introduction of 20% female members, as shown in tables 5 and 6, the effect of a 2% rise in loss rates would be as shown in Table 7.

Table 7: The Effect on the present day Air Force of a 2% increase in Loss Rates and the Introduction of 20% of Women into the Service:

<table>
<thead>
<tr>
<th>Stream</th>
<th>Effect of a 2% Loss Rate Rise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pilots</td>
<td>-39 (out of 600)</td>
</tr>
<tr>
<td>Engineers</td>
<td>-35 (out of 500)</td>
</tr>
<tr>
<td>Technical Airmen</td>
<td>-263 (4/5 out of 6000)</td>
</tr>
<tr>
<td>Technical</td>
<td>-240 (1/5 out of 6000)</td>
</tr>
<tr>
<td>Airwomen</td>
<td>-125 (4/5 out of 8000)</td>
</tr>
<tr>
<td>Non-Technical Airmen</td>
<td>-127 (1/5 out of 8000)</td>
</tr>
<tr>
<td>Total effect</td>
<td>-829 for 15100</td>
</tr>
</tbody>
</table>

Pro-rata effect on force size 22,797 = -1252
Or: 5 squadrons, 5 ship's complements, or 10 companies

The striking effect shown in Table 7 indicates the significance of the effect of loss rates on operational capability. Is there a solution to the problem? Assuming a constant Force capability is required, it is a relatively simple matter to establish the manpower required for a given number of operational Units. If these are to be kept fully manned by trained personnel, then as loss rates fluctuate, the number of trainees, instructors, post-graduate and support staff must also fluctuate. Thus, to main a constant Force capability in an all volunteer Service, the
total manpower allocation must fluctuate in direct proportion to the loss rates. Figure 6 shows a diagrammatic representation of this effect.

Such a solution poses a number of problems, the greatest of which is budgeting. Manpower, be it work-force or training-force, is an expensive commodity and since loss rates can vary more quickly than budget plans, matching expenditure with estimates would be difficult. Controlling the number of trainees would also pose a problem. Given a ‘blank cheque’ for trainees, the Service might be tempted to increase training times and loss rates in order to increase the quality of graduates. Both these actions increase the number of trainees and hence the cost. Conversely, awareness of the high costs of training could force the Services to reduce training times and failure rates. These actions would decrease the quality of graduates and eventually of Service manpower, reducing Force capability.

The reality of the provision of resources for Defence is that a system that varies manpower allocation in proportion to loss rates is unlikely. The consequence of this reality is the inescapable conclusion that in a Defence Force of fixed strength, operational capability will fluctuate inversely with loss rates.

Maximizing Operational Capability

Having established that loss rates significantly affect operational capability and that revised systems of manpower allocation that would alleviate the adverse effects are unlikely to occur. This section of the article describe measures that manpower managers can use to maximize operational capability.

The first step is to minimize losses from the work-force. This requires the manipulation of the forces that attract individuals to, and repel individuals from the Service. Attraction of civilians to the Service is generally achieved by adjusting conditions of service so that they are attractive in comparison with those conditions of employment offered in civilian jobs. The most common measure is salaries and wages; these should be maintained at a high level to attract and retain members of the Services. Non-financial conditions of Service, such as low cost, high quality housing, free medical and dental treatment, retirement benefit schemes, working hours and conditions also play an important part. Slippage of these conditions of service in comparison with the civilian community results in increased loss rates. Those who insist on the maintenance of operational capability should ensure that no such slippage occurs.

Conversely, some aspects of Service life repel members from the Service. The most significant of these factors is the requirement to move from locations and jobs at the Service’s direction. Minimization of posting turbulence and providing each member with a greater influence in these decisions will reduce losses from these causes. Similarly, the effects of other aspects of Service life which repel members from the Service can be minimized by leadership measures which motivate the individual.

Notwithstanding, the aim should not be to reduce loss rates to zero. Reducing loss rates confer a benefit by increasing the Effective Percent of the work-force. Loss minimization also has a cost. Direct costs result from paying relatively high salaries in order to retain members. Indirect costs come from the loss of flexibility in employment occasioned by the reduction in movement of personnel. The best benefit/cost ratio is obtained when the additional cost of reducing loss rates exactly equals the additional benefits of the reduction. Because of the qualitative nature of the benefits and the costs, the ‘ideal’ loss rate is difficult, if not impossible, to determine. Nonetheless, the concept should be borne in mind by those responsible for managing Service manpower and at least a thorough search should be made for this philosopher’s stone.

The training system offers potential for maximizing operational capability. In a Service of fixed size, every position not filled by a trainee or an instructor is available to the operational force. Two measures can be taken to minimize training force sizes. Firstly and most importantly, the training times should be reduced to the minimum consistent with the achievement of operational tasks. One strategy that can be adopted is to provide training only when required rather than as an initial extensive training course. Knowledge, like equipment, becomes obsolete with time. Providing training on a ‘need to know now’ basis reduces the size of the training-force as well as reducing knowledge obsolescence.

Secondly, reducing training failure rates also reduces the number of trainees. More accurate selection methods, improved instructor quality and better student motivation are factors which
reduce training losses. Computer aided instruction also holds promise for the future.

A final factor in maximising operational capability should be mentioned, although it is not directly linked to arguments on loss rates. In the 'high technology' forces such as the RAAF and the RAN, the weapons systems purchased have a direct effect on manpower requirements. Just as manpower allocations are relatively fixed, so are total Defence budgets. If the Services purchase manpower intensive weapons systems, then the manpower required will consume Defence Force budget dollars and will reduce the funds available for equipment. Thus, effectiveness evaluations of any weapons system should include an evaluation of the manpower required to support the system throughout its life.

In summary, operational capability is maximized by controlling loss rates at optimum levels, minimizing training times and loss rates, and reducing the manpower obligation in new weapons systems.

Manpower Prognosis

Upon reflection, the arguments so far developed should show that since 1974, decreasing loss rates should have increased the Effective Percentage of the work-force. This is the case and the RAAF has at present the best work-force to training-force ratio it has enjoyed for some time. In addition, it has managed to provide manpower for a number of new projects and activities over the past few years by using the declining training-force population to provide the necessary manpower. The alternative would have been manpower increases.

Has the RAAF excess manpower as a result? The Directorate of Organization and Establishments — Air Force conducts regular inspections of RAAF Units. These inspections show that the RAAF has just sufficient manpower to complete essential tasks related to the conduct of peacetime operations, but many highly desirable tasks are not being done.

What of the manpower prognosis? The tasks being placed on the RAAF are increasing, especially over the next 4 to 6 years when the introduction of the F/A-18 will overlap with the Mirage operations in order to maintain a Tactical Fighter Force capability. Figure 2 shows indications of an upturn in both Officer and Airmen Corps loss rates. That the steady increase in the proportion of female members of the Service will further reduce work-force numbers is also known. The guidance on manpower for the RAAF is zero growth. The net result of all these factors is that the RAAF is: starting with barely sufficient manpower to complete its current tasks, experiencing increasing demand for manpower to service new equipment, knows that rising loss rates will reduce the amount of manpower available to the work-force in a zero growth environment. The outcome will be reduced Force capability. The other Services can anticipate similar effects.

Summary

In a Defence Force with a fixed manpower allocation and where losses from the work-force are replaced by a training system, the allocation must be divided into a training-force and a work-force. The size of the training-force can only be increased at the expense of the work-force. The training-force requirements are increased by any rise in work-force loss rates, work-force growth, training-force loss rates and the length of training courses.

The effect of work-force loss rate variations on work-force size is magnified by recruit quality contingent on recruiting rates, instructor to student ratios and the requirement for postgraduate training.

Services with long training times are the most affected. Thus, the ‘high technology’ Services, the RAAF and the RAN, tend to be most affected by work-force loss rate fluctuations. In the RAAF, loss rates from the work-force vary significantly over time, showing a cyclic pattern with a frequency of about 4 years. The last decade has shown a trend towards reduced loss rates.

Traditionally, females in an all voluntary force exhibit a higher work-force loss rate than their male counterparts. All other factors being equal, this higher loss rate requires a greater training-force allocation at the expense of work-force positions. The increasing employment of females in the Defence Force will result in a loss of work-force positions.

Fluctuations in the loss rates due to market forces will significantly affect the size of the work-force. Using RAAF loss-rate statistics, a 2% increase in work-force loss rates from the present low levels to average loss rates and the introduction of a 20% female work-force would require that manpower equivalent to about 5
squadrons be transferred from the work-force to the training-force.

Loss rate reductions over the last decade have allowed the RAAF to service new projects and activities without substantial manpower growth. Loss rate data indicates that loss rates are likely to increase. Recent establishment inspections have demonstrated that the RAAF has barely sufficient manpower to meet current commitments. The FYDP plan is for a number of new projects and activities requiring additional manpower in the RAAF; however, growth guidance is zero. If the work-force loss rates increase as expected, the RAAF will not have sufficient manpower to meet all its tasks.

Operational capability can be maximized by controlling work-force loss rates at optimum levels and minimizing training times and training-force loss rates. Financial rewards for service are a major factor and are beyond the control of the Services. Thus, maximizing Defence Force operational capability is the joint responsibility of Service manpower managers and the Government.

The conclusion is that RAAF manpower is at a critical point and if loss rates increase without an increase in manpower allocation, then operational tasks will have to be surrendered.

Appendix 1

Derivation of Work-force and Training-force Strengths

Objective:
Given a fixed number of positions and other data, determine the division of the positions into work-force and training-force strengths.

Variables:
N = total number of positions
W = Work-force strength
T = Training-force strength
O = Output from the training-force
Y = Years of basic training
S = Start to end ratio of training strengths
L = Loss rate from the work-force per year
I = Increase in work-force size
F = Factor used temporarily to simplify derivation

Derivation:
The number of trainees has two elements: the 'core' who graduate and those who fail. Thus, the number of trainees expressed in terms of training output is:

\[ T = O + \frac{1}{2}Y + \frac{1}{2}O \cdot S \]

thus:
\[ O = \frac{2T}{Y + \frac{1}{2}Y \cdot S} \]

let:
\[ F = \frac{Y + \frac{1}{2}Y \cdot S}{Y + \frac{1}{2}Y \cdot S} \]

then:
\[ O = \frac{2T}{F} \] \hspace{1cm} (1)

In the work-force, training losses must equal the increase in work-force size and replace losses from the work-force:
thus:
\[ 0 = I + W \cdot L \]

and from (1):
\[ 2T/F = I + W \cdot L \] \hspace{1cm} (2)

The allocated force is the sum of the work-force and the training-force, ie:

\[ N = W + T \]

thus:
\[ W = N - T \] \hspace{1cm} (3)

replacing W in (2) gives:
\[ 2T/F = \frac{I + N \cdot L - T \cdot L}{F \cdot (I + N \cdot L)} \]

collecting terms:
\[ T = \frac{2 + L \cdot F}{2 + L \cdot F} \]

and replacing \( Y \cdot (S + 1) \) for F gives:
\[ T = \frac{Y \cdot (S + 1) \cdot (I + N \cdot L)}{2 + L \cdot Y \cdot (S + 1)} \] \hspace{1cm} (4)
Appendix 2
Calculation of Work-force and Training-force Allocations
Example (Pilots)

Parameters:
Total Manpower Allocation ......................................... (600) (1)
Work-force loss rate (this example) ............................... (0.07) (2)
Work-force average loss rate ....................................... (0.05) (3)
Work-force growth per year ........................................ (0) (4)
Training years ........................................................... (1.25) (5)
Training-force start-to-end ratio .................................. (2.0) (6)
Student quality factor ................................................ (2.0) (7)
Instructor to student ratio ........................................... (0.67) (8)
Post-graduate training years ........................................ (0.50) (9)

Calculations:
Training Factor .......................................................... (10)
Trainees ................................................................. (11)
Student Quality Factor ................................................ (12)
Instructor Requirements .............................................. (13)
Post-graduate trainees ................................................ (14)
Work-force ............................................................... (15)
Effective Percent ....................................................... (%)

Calculation of Work-force and Training-force Allocations

Parameters:
Total Manpower Allocation ......................................... (1)
Work-force loss rate (this example) ............................... (2)
Work-force average loss rate ....................................... (3)
Work-force growth per year ........................................ (4)
Training years ........................................................... (5)
Training-force start-to-end ratio .................................. (6)
Student quality factor ................................................ (7)
Instructor to student ratio ........................................... (8)
Post-graduate training years ........................................ (9)

Calculations:
Training Factor .......................................................... (10)
Trainees ................................................................. (11)
Student Quality Factor ................................................ (12)
Instructor Requirements .............................................. (13)
Post-graduate trainees ................................................ (14)
Work-force ............................................................... (15)
Effective Percent ....................................................... (%)

Wing Commander Christopher Laurie Mills joined the RAAF in 1964 and graduated from the RAAF Academy in 1968 with a BSc. Following pilot training, he completed tours on transport and fighter aircraft. After a tour in Butterworth, Malaysia as a member of the Air Base air staff, he returned to an operational research position in Defence Central.

His first experience in manpower came in 1979 in the Directorate of Personnel Officers — Air Force where he introduced a system of strength management and completed the systems analysis for the Air Force Personnel and Establishment Management System (AFPEMS) computer. In 1981 he completed an MSc in Systems Management at the USAF Institute of Technology at Wright Patterson Air Force Base, Ohio. He is currently employed in the Directorate of Organization and Establishments — Air Force on the design and implementation of the RAAF Integrated Manpower System (RAAFIMS).
Definition

AID to the Civil Power may safely be defined as the use of members of the Defence Force:
- to execute and maintain the Constitution and the laws of the Commonwealth;
- to protect a Commonwealth interest; and
- on the application of the Executive Government of the State, to protect the State against domestic violence.

The definition I suggest is safe because the Australian Constitution and the Defence Act support each of these uses of the Defence Force in Aid to the Civil Power.

Statute Law

Let me now direct your attention to the specific provisions in our law which give that support.

Section 61 of the Constitution provides:
“The Executive power of the Commonwealth is vested in the Queen and is exercisable by the Governor-General as the Queen’s representative, and extends to the execution and maintenance of this Constitution and of the laws of the Commonwealth”.

I shall explain a little later on how this section supports the use of the Defence force to maintain the Constitution and the laws of the Commonwealth.

Section 119 of the Constitution provides:
“The Commonwealth shall protect every State against invasion and, on the application of the Executive Government of the State, against domestic violence”.

Section 51 of the Defence Act provides as follows:

“Where the Governor of the State has proclaimed that domestic violence exists therein, the Governor-General, upon the application of the Executive Government of the State, may, by proclamation, declare that domestic violence exists in that State, and may call out the Permanent Forces and in the event of their numbers being insufficient may also call out such of the Emergency Forces and the Reserve Forces as may be necessary for the protection of that State, and the services of the Forces so called out may be utilized accordingly for the protection of that State against domestic violence:

Provided always that the Emergency Forces or the Reserve Forces shall not be called out or utilized in connection with an industrial dispute”.

Section 63(1)(f) of the Defence Act provides:
The Governor-General may:
(f) Subject to the provisions of this Act, do all matters and things deemed by him to be necessary or desirable for the efficient defence and protection of the Commonwealth or of any State.

AMR 415 provides:
“The provisions of this Part shall be applied as far as possible in the employment of military forces by the Commonwealth, on its own initiative, for the protection of its servants or property, or the safeguarding of its interests”.

The words “the provisions of this Part” are significant because after the definition section of Part V. the provisions mentioned specifically refer to “officers called out for the protection of a State against domestic violence” or to “military forces which have been called out for the protection against domestic violence”. Thus Part V. of AMR assumes a call out in all cases.
Employment of the Defence Force

Against this background, the position is that members of the Defence Force may be employed in the maintenance of law and order and the suppression or prevention of violence and disorder in two ways namely:

• in the circumstances envisaged by section 119 of the Constitution, on an application by a State Government for the assistance of the Commonwealth to restrain domestic violence in that State, followed by a call out of the forces by the Governor-General pursuant to section 51 of the Defence Act; or

• by the direct action of the Commonwealth Government to protect Commonwealth interests.

Other Assistance Under Other Legislation

On occasions, members of the Defence Force are required to enforce Commonwealth law and protect Commonwealth interests in circumstances which are quite different to, and removed from aid to the Civil Power, in the sense referred to above. Instances are the patrolling and surveillance of Australian waters by naval vessels or aircraft to prevent intruders. In some cases this is provided for by statute such as the Continental Shelf (Living Natural Resources) Act 1968, the Fisheries Act and the Customs Act. In these cases, the duties and powers of members of the Defence Force when so acting are defined in, and derived from, the particular legislation itself. In other cases the duties and powers of members are derived from the common law.

Common Law

I interpose here that a call out is not needed to enable and require members of the Defence Force to deal with violence, or threats of violence to the security of any place where they are stationed. Trespassers may be arrested and handed over to the civil authorities to be dealt with according to law. These powers derive from the common law but are also provided for specifically under the Defence Act and the Crimes Act. There would be no purpose in mounting a guard, posting sentries and detailing picquets, or having Military Police on duty if they might not lawfully take action to protect the premises where they are stationed, and the property and persons there, against unlawful intruders. In doing so, they are exercising, in the course of military duty, the right, indeed the obligation, of every law abiding subject of the Crown to take reasonable measures available to him to prevent a crime or apprehend a criminal. Equally members of the Defence Force in these situations have the right to defend themselves and to defend their comrades against assault, threatened assault and any form of violence, or threat of violence to life or limb.

The Basics

Aid to the Civil Power is connected with the law from start to finish. The task is, therefore, to see that operations are not only successful, but are carried out within the law.

In order to understand Aid to the Civil Power we start with the fundamental concept that the preservation of law and order within Australia is a police responsibility.

The basic rule which is to be remembered is that it is only in a situation where the police are no longer able to cope, that is, to discharge their responsibility effectively, that the law provides for the use of the Defence Force to maintain or restore order.

Where a particular police force is in danger of becoming unable to maintain order especially through lack of numbers rather than lack of firepower or specialist techniques, it may be expected that its first recourse will be to seek support and reinforcement from another police force, if it is available.

The Defence Force is not trained in police duties, it has no wish to perform a police function, and its organisation is not suited to acting as a police force. As a matter of Constitutional Law members of the Defence Force cannot operate under police command. Members of the Defence Force remain under military command and, therefore, for this reason, they are not to be sworn in as Special Constables. Remember always, the use of the Defence Force is a last resort, high risk, option.

Procedures

There are strict procedures which govern the use of the Defence Force in a law enforcement role.

I will deal first with the position as it relates to Section 51 of the Defence Act and then comment upon ‘Call Out’ to protect Commonwealth interests. Although Section 51 of the Defence Act does not apply to the use of the
Defence Force to protect Commonwealth interests, the requirements for call out, requisition and requests apply to the use of the Defence Force both to protect a State against domestic violence and to protect Commonwealth interests.

The procedures are as follows:

**CALL OUT.** When a State seeks the assistance of the Defence Force to protect it against domestic violence the following conditions precedent must be fulfilled before the use of the Defence Force is lawful:

- The Governor of the State must proclaim that domestic violence exists therein;
- The Executive Government of the State must apply to the Commonwealth Government for assistance;
- The Governor-General must proclaim domestic violence in that State; and
- The Governor-General must call out the Permanent Forces in accordance with Section 51 of the Defence Act. If their number is insufficient such of the Emergency and Reserve Forces as may be necessary may be called out.

In giving military aid to a State the emphasis is that, until the Defence Force, or part of the Defence Force, is called out by the Governor-General, it is not qualified to act in aid to the civil power.

Let me give you a practical example. Three dangerous prisoners serving life sentences for murder, escape from Fremantle Gaol. You can imagine the temptation for the local police to ask the SAS Regiment to send a body of armed soldiers to help capture them. But this is a State matter, and you cannot act to assist the State unless the procedure I have just mentioned has been carried out.

**REQUISITION.** The part of the Defence Force called out by the Governor-General is not to act in aid to the civil power unless ordered to do so by the officer commanding them. He is not to order out troops unless he has received a requisition from the civil authority. He may order out troops without a requisition only in case of great and sudden emergency.

The responsibility to decide whether to order out troops in response to the requisition remains with the officer in command. He also decides on the strength of the force to be ordered out.

**MAGISTRATE.** If the officer in command decides to order out troops, he is to notify the civil authority of his decision and require the civil authority to provide a magistrate to accompany the troops at the scene of the domestic violence. You must ensure that the civil authorities understand this and that under the law as it is at present, a police officer cannot substitute for a magistrate.

**REQUEST.** The function of the magistrate is to make an impartial assessment at the scene, and, if the police are unable to suppress the violence, to request the officer commanding the troops to take action. Preferably the request should be in writing.

At the scene of violence, the officer commanding the troops is solely responsible to decide whether or not he will take action and, if he decides that he will take action, the nature and extent of it.

**EMERGENCY.** In extraordinary cases of immediate and pressing danger which, in the opinion of the officer commanding troops who have been called out, demands his immediate interference, the officer is to take such action as he considers necessary, although he has not received a requisition from a civil authority or a request from a magistrate.

**Commonwealth Interests**

In Australia, no State has called upon the Commonwealth to protect it from domestic violence by specific reference to section 119 of the Constitution and Section 51 of the Defence Act. I think it highly unlikely that a State ever will, because domestic violence ought to be able to be handled by the Police. The action taken after the Hilton bombing was the first time the Defence Force has been called out by the Governor-General in Australia in aid to the Civil Power, and this was by the direct action of the Commonwealth to protect Commonwealth interests. True the Prime Minister had been in communication with the Premier of New South Wales, and apparently there was agreement between them, but the call out was “for the purpose of safeguarding the national and international interests of the Commonwealth.” The Hilton bombing was thought to be a Terrorist incident and, I believe it is likely that Australia will not remain immune from the spread of this growth industry “Terrorism”.

Let us, therefore, examine the right of the Commonwealth to use the Defence Force to protect its interests.

After the Bowral incident in 1978, the Commonwealth Attorney-General sought the views
of Sir Victor Windeyer about the call out and
the legal position of the troops who were called
out. Sir Victor is a retired Justice of the High
Court, was a wartime senior commander and
later, as a Major General, was the CMF Mem­
ber of the Military Board. Sir Victor gave this
advice:

"The power of the Commonwealth Gov­
ernment to use the armed forces at its com­
mand to prevent or suppress disorder that
might subvert its lawful authority arises fun­
damentally, I think, because the Constitution
created a sovereign body politic with the at­
tributes that are inherent in such a body. The
Commonwealth of Australia is not only a
federation of States. It is a nation. Section
61 of the Constitution is a recognition of the
authority of the national Government to pro­
tect the nation.

I do not doubt that the Commonwealth
Government can, of "its own initiative" em­
ploy members of its Defence Force "for the
protection of its servants or property or the
safeguarding of its interests". I take these
words from Regulation 415 of the Aus­
tralian
Military Regulations. Regulation 511 or the
Air Force Regulations is in the same terms.
But I consider it a mistake to regard the
Regulation as the source of Commonwealth
power. It assumes it. It does not create it".
Sir Victor then cites a decision of the Supreme
Court of the United States which he says is
apposite for Australia:

"The entire strength of the Nation may be
used to enforce in any part of the land the
full and free exercise of all national powers,
and the security of all rights entrusted by the
Constitution to its care . . . If the emergency
arises, the army of the Nation and all its
militia are at the service of the Nation to
compel obedience to its laws."

These quotations establish the legal right of
the Commonwealth to use the Defence Force
to protect itself and its interests. What we then
have to consider is the procedure, the machinery
which is to be employed so that the Defence
Force may lawfully be used to protect Com­
monwealth interests or to maintain the laws of
the Commonwealth.

**Powers under the Constitution and
Defence Act**

The Australian Constitution empowers the
Executive to maintain the Constitution and this
clearly indicates that the Commonwealth Gov­
ernment is entitled to protect the territorial in­
tegrity and sovereignty of the Commonwealth.
It clearly follows there must, by implication,
be contained in the executive power, authority
to do that which is necessary, because otherwise
what would be the point of being able to say
you can defend the sovereignty and integrity of
the Nation.

The Defence Act, in defining "war", con­
templates invasion or apprehended invasion of
Australia or attack or apprehended attack on
Australia but the Act does not clearly contem­
plate threats to our national sovereignty or in­
tegrity in situations short of an all-out nation
at war concept. Apart from domestic violence
in a State, the Defence Act has no particular
thought about the possibility of violence or
harrassment which might affect our national
integrity. It follows that the Defence Act does
not set out and make clear what the procedures
for use of the Defence Force are, what the
powers of members of the Defence Force are,
and what the responsibilities of members of the
Defence Force are in situations where they are
called upon to protect the Commonwealth, and
which are not to be regarded as war.

Despite these apparent difficulties, it can be
shown there is an unbroken thread back to the
head of power in the Constitution to support
the use of the Defence Force to protect the
Commonwealth and its interests. To demon­
strate this I am going to make brief reference
to the Hilton Bombing/Bowral incident and to
Exercise KANGAROO 83.

**Exercise K83**

The use of the Defence Force for the purpose
of safeguarding the national and international
interests of the Commonwealth of Australia,
and for the protection of persons and property
in the Commonwealth, and for other purposes
related to these matters, was first considered in
relation to the call out after the Hilton bombing
but more recently, and in greater detail, in
relation to Exercise K83. You will all be aware
that it was the duty of members of the Defence
Force to secure the route between Sydney and
Bowral and to protect "internationally pro­
tected persons". Some of you will be aware of
the general scenario for K83; for those of you
who only have a minimal knowledge of what
took place let me, very briefly and very broadly,
give you some background information to pro-
vиде a framework for some of our later considerations.

Because the setting for K83 was entirely hypothetical and was merely directed at assessing our ability at low-level operations, not at any specific country or contingency, a hypothetical enemy was created for the exercise. This was a fictional country called Kamaria located approximately 1000 kilometres west of Learmonth. The setting for the exercise envisages that after a period of diplomatic conflict in negotiations over various issues, the enemy would increase pressure upon the Australian Government by the infiltration of illegal immigrants, small scale disruption and harassment, threats to lines of communication and logistic installations, and small scale harassment at sea. Then, this pressure would escalate into the lodgment of a number of armed raiding parties and limited air strikes on shipping and land targets.

The exercise actually got under way in early September with Kamarian naval and air intrusions, as well as the clandestine insertion of raiding parties.

In response to these moves, Defence Force reconnaissance units were deployed to the area to determine the extent of Kamarian intrusions and to augment civilian law enforcement resources. In anticipation of an escalation in the enemy threat, a naval task group left Sydney on 13 September carrying stores and equipment which were expected to be needed in a developing emergency. At the same time air combat assets were sent to the west to preserve the integrity of Australian air space against further violation. As the situation on land deteriorated, elements from the Operational Deployment Force in Townsville were flown in in late September to deal with Kamarian infiltrators and saboteurs, who by now were posing a major threat to the community and in the infrastructure of the area.

You will appreciate from the setting which I have just described, that in any real situation the civil authorities and the community of the north-west would be involved in all stages of the escalating conflict, from initial tension during the harassment at sea, then when the raiding parties landed, through to the actual conflict, and that the Defence organisation as a whole would need to work closely with the civil authorities.

The existing police, increased civil coastal surveillance and counter-terrorist systems would, for example, be likely to be activated prior to, or parallel with the involvement of the Australian Defence Force. The public would be involved in reporting occurrences and the suspected movement of the enemy.

In low-level contingencies, hostile actions against Australia may, in law, simply begin with actions that breach Commonwealth or State laws.

Examples are breaches of customs and quarantine regulations and unauthorised incursions into Australian sea space, air space or coastal territory. They may even extend to apparently isolated acts of criminal violence such as arson, sabotage or terrorism before the distinctly military threat becomes evident, that is, uniformed bodies of armed men with distinguishing uniforms and under orders of foreign national authorities. Thus in the early stages of the scenario envisaged for K83, where the situation involves or appears to involve no more than isolated breaches of Australian or State law, Governments are shown as unlikely to authorise dedicated military operations, at least in the first instance, as distinct from specialist defence assistance in aid to the civil power.

Even when the military operations have been authorised the role of civilian law enforcement agencies is unlikely to diminish. It is also to be expected that the Government of the day may wish to preserve an atmosphere of business as usual for as long as possible.

The scenario of K83 suggested, that the sequential development in a deteriorating situation could be as follows:

- Firstly, a phase of reaction by law enforcement agencies from within their own resources;
- Secondly, assistance by the Defence Force to civil authorities to supplement limited civil capabilities for dealing with armed violence;
- Thirdly, a point at which the military nature of the enemy's campaign predominates, and the State and Federal Governments accept that in certain respects and in certain areas, the Commonwealth defence function predominates over, but does not exclude State and Commonwealth law enforcement functions; and
Finally, the use of the Defence Force on military operations requires limitations to be placed on civilian movements and activities; for instance, roads may be closed and civilians excluded from particular areas.

We define "low-level conflict" as activity in which the opponent engages in politically motivated hostile acts ranging from non-violent infringements of, to small scale military actions, against Australian interests or sovereignty. This level of conflict has the potential to arise with little or no warning, and may or may not require direct Defence Force participation. Interestingly, nowhere in the defence legislation nor, indeed, in the Constitution is any concept of low level threat dealt with satisfactorily.

How, then, are we able to use and, ultimately to deploy the Defence Force?

Machinery for Use of Defence Force to Protect Australia

Initially law enforcement is a matter for the Police and other Commonwealth Officials. If necessary, because of the remote nature of the area, members of the Defence Force could be asked to assist in accordance with say Fisheries or Customs legislation.

I suggest it would be a transparent pretence to attempt to describe "as domestic violence" what was going on in the Scenario for K83 in Western Australia despite the wide meaning of that term.

Section 119 of the Constitution talks about the protection of the States against invasion, and I daresay one could look at the incursions by the Kamarians and say "Western Australia is being invaded and there is a need for the Commonwealth Government to take action to protect it". But is it not more realistic, and is it not more important to say there have been threats against Australian interests, and related violence and disturbances have occurred, or are threatening to occur, so it is necessary to call out the Defence Force for the purpose of safeguarding the national and international interests of the Commonwealth of Australia, and for the protection of persons and property in the Commonwealth of Australia and for other purposes related thereto.

He did so and authorised the CDFS to issue such orders and directions under his powers of command as may be necessary for those purposes.

Reliance was then placed on Section 63(1)(f) of the Defence Act which says the Governor-General may do all matters and things deemed by him to be necessary or desirable for the efficient defence and protection of the Commonwealth or of any State.

I am pleased to be able to inform you that the Head of Advising Section of Attorney General's Department expressed the considered opinion that Section 63(1)(f) would justify using the Defence Force in an operational role. Indeed Section 63(1)(f) is the thread back to the power conferred by the Constitution for the Commonwealth to protect itself and its interests and property.

As Sir Victor Windeyer said in relation to Bowral:

"The ultimate constitutional authority for the calling out of the Defence Force in February 1978 was thus the power and the duty of the Commonwealth Government to protect the national interest and to uphold the laws of the Commonwealth. Being by order of the Governor-General, acting with the advice of the Executive Council, it was of unquestionable validity . . ."

When military forces are used to protect Commonwealth interests they should be called out by the Governor-General. Permit me to say that I am of the abiding opinion that it would be crass stupidity to use armed members of the Defence Force in an Aid to the Civil Power role unless they have been called out by the
Governor-General acting on the advice of the Federal Executive Council. The requirements for requisition and request will be applicable. Normally the requisition will come from an appropriate Federal Minister. Equally those forces will have the same power to act in cases of immediate and pressing danger as they would have when called out to protect a State against domestic violence.

The only difference in procedure between call out to protect a State against domestic violence and to protect Commonwealth interest is that relating to the magistrate. While a military commander must insist on the presence of a magistrate if a State requests aid, if call out is initiated by the Commonwealth a magistrate will be provided only if the civil authority considers it practicable to so do.

Rights and Duties of the Members Called Out

The rules and principles governing the rights and duties of soldiers called out to aid the civil power are contained in Part V of the Australian Military Regulations. These principles are recognised in Defence Instructions (General) which specify the principles to be applied in providing aid to the civil power to be:

- the primacy or supremacy of the civil power;
- the use of minimum force; and
- members of the Defence Force remain under military command and are accountable as such.

These general principles are fundamental in any action by members of the Defence Force in aid of the civil power in time of peace, whether the purposes of their employment be to frustrate terrorism, or to maintain public peace against other forms of disorder, or to protect Commonwealth interests.

Primacy of the Civil Power

The primacy of the civil power means that the civil power remains paramount throughout, and the civil law supreme. A call out of the Defence Force in aid of the civil power is not like a declaration of martial law. The law of the land is not suspended or superseded. Members of the Defence Force are called out to be in readiness to uphold the law. They remain subject to it, and are liable to its penalties.

Minimum Force

A separate paper could be written on this subject. I will merely quote part of a classic statement of the law:

“Soldiers when called upon and required to aid the civil magistrate in apprehending or opposing persons engaged in a riot will be justified in using the force necessary for that purpose. Any excess will be illegal . . . the only rule that can be given is that the force to be legal and justifiable must in every instance . . . be governed by what the necessity of the particular occasion may require.”

This is the law in Australia today. It is applicable not only in riots, but in any cases where members of the Defence Force are called out to enforce the law, or protect Commonwealth interests, but I wish to return a little later to this latter issue, since a different degree of force is usually involved but the law remains the same.

Military Command

The principle that soldiers must remain under military command, and cannot be placed under police command, is so well established and accepted that it requires no further comment.

The Soldiers’ Legal Position

The Attorney-General and Solicitor-General considered the legal position of members of the Defence Force called out by the Governor-General and requisitioned on 13 February 1978 “for the purpose of safeguarding the national and international interests of the Commonwealth and for giving effect to the obligations of the Commonwealth in relation to the protection of internationally protected persons”. Their advice was along these lines:

- they were subject at all times to the rules of the common law;
- they were subject to the legal duty and possessed the legal authority to protect the persons mentioned in the order;
- they had legal authority to take whatever steps were necessary, including the use of reasonable force to achieve that end;
- they had lawful authority to apprehend persons believed on reasonable grounds to intend injury or death to the persons whom it was their duty to protect.

It also followed that:

- force resulting in injury or death, provided always it was no more than was
necessary, would have been legally justifiable, and
• if excessive force had been used, the individual soldier using that excessive force would have been legally liable under the general law.

Rules of Engagement

Rules of Engagement, based upon the Rules applicable in Northern Ireland, were issued to members of the Defence Force called out on 13 February 1978. These Rules accorded with the legal principle of minimum force and may, in my view, be regarded as Rules which could be applied generally.

The Minister for Defence issued a direction to the Chief of Defence Force Staff requiring him to ensure that the Defence Force used only the minimum force necessary to carry out its duty.

Pursuant to that requirement, the Chief of Defence Force Staff issued a set of “Rules of Engagement” for the guidance of commanders and troops operating collectively or individually. Its principal provisions were:
• never use more force than the minimum necessary to carry out the duty;
• always try to handle situations by means other than opening fire;
• if forced to fire, fire only aimed single shots and do not fire more rounds than are absolutely necessary;
• whenever possible a clear and loud warning should be given before firing; and
• when operating collectively, open fire only when ordered to do so.

Minimum Force — A Last Word

It is vital to observe carefully the law relating to the use of minimum force, or if you prefer, relating to the prohibition against the use of excessive force, but that law should not be misunderstood. Deadly force may be used at times, but not if lesser means will achieve the object. Depending upon the circumstances, the minimum force necessary to restore law and order can vary from the mere appearance of troops to the use of all the force at a commanders’ disposal.

A soldier can meet force with force. If his life is endangered he does not have to wait until the terrorist is almost successful. In a terrorist situation I think the law becomes simplified. In counter-terrorist operations, members of the Defence Force are dealing with desperate, fanatical, armed adversaries determined to achieve their mission at any cost. They can meet the force the terrorist offer with appropriate force, provided they use no more force than is reasonably necessary. If soldiers are ordered to assault a building or aircraft to release hostages, they will have sound military intelligence and an appreciation of the force they are likely to encounter. They are entitled to make the assault with such force as is necessary to meet and overcome the anticipated force, but they must not use force which is excessive in the circumstances and especially, they must not use force for the purpose of retribution or vengeance. If they use excessive force they render themselves, as individuals, liable to trial and punishment, but if they abide by the principles I have explained to you, they will find the law will safeguard and protect them.

Finally, let me emphasise that if the matter is put to the test, the test is whether, in the circumstances, at the particular time, the force used was reasonable. That is to say, reasonable in the circumstances as the soldier believed them to be at the time. The fact that subsequent investigations and inquiry might show the circumstances to have been, in fact, different is irrelevant. It is what the soldier believed to be the circumstances at the time which is the critical criterion. The position has been put very clearly by Lord Diplock as recently as July 1976 in a case known as Attorney-General for Northern Ireland’s Reference. This is a fascinating case so permit me to quote the 13 facts which were stated in the Reference to the House of Lords:

(i) The accused, who was a soldier on duty, killed the deceased, who was a young man, with one shot from his SLR rifle when the deceased was less than 20 yards from him in a field in a country area in daylight. The field was close to the farmhouse where the deceased lived with his parents and formed part of the farm.
(ii) The shot was a quick snap shot at the body of the deceased after the accused had shouted “Halt” and the deceased had immediately run off. The shot was not preceded by a warning shot.
(iii) The deceased had not been under arrest at the time when the accused shouted “Halt”.

(iv) At the time of firing the shot the accused was a member of an Army patrol of sixteen men which was on foot and which had been engaging in searching the area and seeking information about persons suspected of terrorist activities.

(v) The said area was one in which troops had been attacked and killed by the IRA; it was an area in which soldiers faced a real threat to their lives and where the element of surprise attack by the IRA was a real threat. The said patrol had been briefed to expect attack and to be wary of being led into an ambush. The patrol was in an area which the members of the patrol were entitled to regard as containing people who might be actively hostile.

(vi) There had been no terrorist activity in the said area on the day on which the accused shot the deceased or during the days preceding the day of the shooting, but this did not mean that there was not a real threat of attack to the said Army patrol, and the threat was increased by the patrol having spent a number of hours in the said area.

(vii) Before firing the shot the accused and other members of the said Army patrol had been searching the out-building of the said farmhouse, and the said patrol had been briefed that the said farm, and two other farms in the said area, were places where terrorists might be hiding.

(viii) The deceased was unarmed and appeared to the accused to be unarmed.

(ix) The deceased was alone and was not one of a number of persons acting in a group.

(x) The accused was wearing full military equipment and a pack.

(xi) When the deceased ran off after the accused’s shout of “Halt,” individual pursuit by the accused was not a reasonable possibility. The accused was 70 yards from other members of the patrol and the chase could have led anywhere and over open ground and the briefing about the risk of being led into an ambush was in the mind of the accused.

(xii) The deceased was an entirely innocent person who was in no way involved in terrorist activity.

(xiii) When the accused fired he honestly and reasonably believed that he was dealing with a member of the Provisional IRA who was seeking to run away but he had no belief at all as to whether the deceased had been involved in acts of terrorism or was likely to be involved in any immediate act of terrorism. This being the state of mind of the accused when he fired, he did so because he thought it was his duty so to do and that firing was the reasonable and proper way to discharge his duty in the circumstances.

I am now going to read some passages from Lord Diplock’s judgement which are crammed full of relevance to our present discussions:

“To kill or seriously wound another person by shooting is *prima facie* unlawful. There may be circumstances, however, which render the act of shooting and any killing which results from it lawful; and an honest and reasonable belief by the accused in the existence of facts which if true would have rendered his act lawful is a defence to any charge based on the shooting. So for the purposes of the present reference one must ignore the fact that the deceased was an entirely innocent person and must deal with the case as if he were a member of the Provisional IRA and a potentially dangerous terrorist, as the accused honestly and reasonably believed him to be.

There is little authority in English law concerning the rights and duties of a member of the armed forces of the Crown when acting in aid of the civil power; and what little authority there is relates almost entirely to the duties of soldiers when troops are called upon to assist in controlling a riotous assembly. Where used for such temporary purposes it may not be inaccurate to describe the legal rights and duties of a soldier as being no more than those of an ordinary citizen in uniform. But such a description is in my view misleading in the circumstances
in which the Army is currently employed in aid of the civil power in Northern Ireland.

In some parts of the province there has existed for some years now a state of armed and clandestinely organised insurrection against the lawful Government of Her Majesty by persons seeking to gain political ends by violent means — that is, by committing murder and other crimes of violence against persons and property. Due to the efforts of the Army and police to suppress it, the insurrection has been sporadic in its manifestations but, as events have repeatedly shown, if vigilance is relaxed the violence erupts again. In theory it may be the duty of every citizen when an arrestable offence is about to be committed in his presence, to take whatever reasonable measures are available to him to prevent the commission of the crime; but the duty is one of imperfect obligation, and does not place him under any obligation to do anything by which he would expose himself to risk of personal injury, nor is he under any duty to search for criminals or seek out crime. In contrast to this, a soldier who is employed in aid of the civil power in Northern Ireland is under a duty, enforceable under military law, to search for criminals, if so ordered by his superior officer, and to risk his own life should this be necessary in preventing terrorist acts. For the performance of this duty he is armed with a firearm, a self-loading rifle, from which a bullet, if it hits the human body, is almost certain to cause serious injury if not death."

Their Lordships were not prepared to find that the amount of force used by the accused was unreasonable. I quote one short comment:

"In the circumstances postulated, the soldier had no choice as to the degree of force to use. It was a case of all or nothing. He could either aim a bullet at the suspect with his rifle or use no force at all and let the suspect escape . . ."

The case is really a fascinating one and there are many extracts from the judgements to which I would like to invite your attention, but it is sufficient merely to say that the House of Lords were of the opinion that the accused soldier was acting in good faith and was acting as his military duty required him to act and in so acting used no more force than was reasonably necessary.

The Hope Report

Following the Sydney Hilton bombing, on 21 Mar 78 the Prime Minister appointed the Hon Mr Justice Hope CMG to conduct a review of protective security, and the Judges Report was presented on 15 May 79. It is called Protective Security Review, published by the Australian Government Publishing Service, and I commend it to you.

Mr Justice Hope recommended some major changes to the Defence Act. The present Section 51 will be replaced by a new Division of the Act to deal with the use of armed members of the Defence Force for the protection of State against domestic violence, enforcement of Commonwealth laws and protection of Commonwealth interests.

The proposed provisions were subject to much debate by the previous Government. I do not know the attitude of the new Government so I will only deal with the broadest outline:

- When the Government of a State requests assistance of armed members of the Defence Force, it will still be necessary for the Governor-General to authorise that assistance;
- It will also be necessary for the Governor-General to authorise the use of armed members of the Defence Force to execute or maintain the law of the Commonwealth, to assist in executing and maintaining those laws, and to protect or assist in protecting Commonwealth interests;
- The Minister will be empowered to give the CDFS directions as to the maximum number of troops;
- In certain circumstances (still to be finalised) the call out will have to be reported to the Parliament;
- It is expected that the Magistrate will virtually disappear and his role will be taken over by Commissioners of Police and senior Police Officers;
- When armed members of the Defence Force are called out, the CDFS may direct that members of the Defence Force other than armed members may assist those armed members;
- Members called out will be given the duties and powers of police officers; and
- The Reserve can not be used unless the Governor-General by proclamation au-
authorises their use and states the reasons for it. The Reserve can not be used in an industrial dispute.

Army will continue to stress the need to spell out with some precision the rights, duties and obligations of soldiers called out, and will continue to stress the need for their adequate protection under the law. Even a clause along the lines of Section 3 of the Criminal Law Act (Northern Ireland), would be very helpful. That clause states:

"A person may use such force as is reasonable in the circumstances in the prevention of crime, or in effecting or assisting in the lawful arrest of offenders or suspected offenders or of persons unlawfully at large."
THE rapid advance of the Japanese in the Far East and Pacific areas from January to May 1942, brought the threat of war closer to Australia. In early March, the Japanese landed on the northern shores of New Guinea, and proceeded to advance over the Owen Stanley Ranges, digging in and fortifying their positions. In August, the enemy was moving still closer, and large numbers of Australian and American troops were arriving in Port Moresby.

The 2/9th Australian General Hospital, a 600 bed hospital, had returned from the Middle East on 17 March 1942, and had set up a hospital at Northfield, on the outskirts of Adelaide. In August, orders came for the men of the 2/9th AGH to move to Moresby. Because of the doubts in the stability of the military situation, the AANS were not, at first, permitted to accompany the men.

On 23 August 1942, the male staff arrived in Moresby on the Hospital Ship Manunda. They were taken to a site 17 miles out of Moresby, near Rouna Falls, and found all the hospital equipment dumped in huge piles where an area of the scrub had been burnt out. The site for the hospital was long and narrow (because of the hilly terrain), and spread out over a mile. The wards at first, were erected on level ground by the staff.

In less than a fortnight, the 2/9th AGH was admitting patients at a rate of 46 a day. At the end of three weeks, the staff had erected eleven wards, and had 600 beds equipped, the establishment of a General Hospital. The amount of work, digging latrines, panwash and soakage pits, admitting and nursing patients in the heat and humidity, extended the staff to the utmost. The 2/9th AGH was the only General Hospital in New Guinea.

When a site was selected for a ward, the ground had to be levelled to provide a level floor. Men with picks and shovels would level one end, tents go up, and beds go in. Patients who were on the road on ambulance stretchers, would be moved in, while the rest of the ward would be levelled and tents put up. The staff would be struggling to cope with the paper work, and attend to the needs of the patients. The wards consisted of marquee tents or EPIP tents brigaded together to make a 60 bed ward. A native type hut would be built beside the ward by New Guinea natives. This annex was divided by canvas or Sisalcraft into an office, pantry and shelves. If appropriate (eg. a surgical ward), a treatment tent would be in the plan. Latrines were of deep pit variety behind the wards, surrounded by hessian or Sisalcraft.

On 6 October there were 732 patients. Problems arose and were accentuated by the fact that the AANS had not been permitted to accompany the men. Many technical procedures normally carried out by sisters had to be performed by medical officers and nursing orderlies (who had comparatively little training). This workload added to the strain, and they deserve high praise.

In September, the Japanese were halted at Ioribaiwa, approximately 40 air miles from Mo-
In October, a decision was made to send 68 AANS to join the men. They arrived on the *HS Manunda* on 24 October and were welcomed by the CO, Officers and men of the unit. The sisters commenced duty straight away, some volunteered for duty that night. There was no time to become acclimatised, and most found, at first, the heat very oppressive and tiring.

Soon after arrival, a huge number of patients from Buna, Gona and Sanananda were admitted. The numbers rose to 826 patients, and because of a shortage of beds, some were nursed on ambulance stretchers under the beds. This presented many difficulties in the administration of a ward and management of nursing procedures. Those with malaria and having a rigor would change to the top bed. The arrival of the wet season did not help the situation. Deluges of rain each afternoon flooded the wards and leaked through the tents, and in order to miss the drips, beds had to be moved in the limited space. Wards became bogs, and beds sank into the mud at all angles.

Although the Japanese were being driven back, the fighting was fierce and difficult. Not only did the Australian troops have to fight an enemy in a new type of jungle warfare in difficult terrain, they had to overcome diseases such as malaria, scrub typhus, dysentry and worm infestations as well as battle casualties. Evacuation down the Kokoda Trail presented many difficulties, as the terrain was mountainous, making the use of planes impossible. All stores and equipment had to be carried. The sick and wounded either walked, often crawling and dragging themselves along, or were carried on stretchers. It sometimes took many days.

The Kokoda Trail rose and fell in valleys. Paths and steps had to be hacked out of steep slopes and around gorges, and swift streams had to be conquered. Always, there was the heat and the rain, the thick hostile jungle, and underfoot, always there was the deep, heavy sticky and slippery mud. Clothes rotted and feet were soggy, flies were prevalent and the waste left by the Japanese was putrid.

On arrival at the 2/9th AGH, the patients were often in a state of extreme exhaustion and high fever, clothes in tatters.

On arrival at the 2/9th AGH, wounds were often putrid and fly-blown, and on occasions, gas gangrene was present, at times causing death. On arrival of a convoy, the theatre staff would receive stretcher-after-stretcher of wounded and shocked patients, and the two operating theatres, each with four tables, worked in teams, speedily and methodically. The staff worked long hours, and if necessary, through the night.

The blood bank was adjacent to the theatre. At first, blood was taken from the staff or walking wounded. Later, large crates, each containing ten Soluvac bottles of blood packed in ice, was flown up regularly from Australia. All equipment used was cleaned and autoclaved; needles had to be reused and sharpened.

The medical patients were in greater numbers by almost ten to one. They were debilitated and exhausted, often in a state of high fever—many would be having dreadful rigors, others would be in a semi-comatose condition and in heart failure from scrub typhus. In spite of leaking tents, thick mud underfoot and limited unappetising food, the patients gratefully accepted sponging or showers, a clean bed, bread and butter and jam and a mug of tea (their most
popular meal on arrival). They stated, in letters home, that the sisters in their grey uniforms made them feel that it must be a safe area, which was good for their morale.

In spite of large numbers of sick evacuated to Brisbane on the Hospital Ship (up to 400 every 10 days), the bedstate grew rapidly. Reinforcements began to arrive (sisters and orderlies), and the 2/9th AGH was still the only General Hospital in New Guinea.

On 26th November 1942, there were 1,010 patients. Every available site was occupied, and difficulties were experienced with shortage of tents, beds, lockers, linen (especially pyjamas) and mess gear. On 30 November, there were 1,247 patients, and 250 of these were being nursed on ambulance stretchers under the beds. Some medical wards had 120 patients (60 beds and 60 stretchers).

At this stage, the 7 Field Company Engineers commenced expanding the hospital site to make 1,200 beds by cutting out the sides of hills with bulldozers (first we had ever seen), and constructing roads through the hospital area and improving drainage. This relieved a critical situation.

On 4 December, there were 1,566 patients (323 on stretchers). On Christmas Day, there were 1,901 patients and 2,261 beds and stretchers were equipped. At the end of December and beginning of January, in spite of evacuations by Hospital Ship and transfers to the Convalescent Depot, all beds and stretchers were occupied.

There were 10,083 admissions from September to December 1942, and 5,490 of these were in December. It was calculated that in December, the hospital functioned at the rate of over a 4,000 bed hospital.

At the end of the year, there were over 2,000 patients, and the staff consisted of:

- Medical Officers 29
- Other Officers 7
- Male, other ranks 275
- AANS 112
- Physiotherapists (female) 3

There were many difficulties in the first few months of the 2/9th AGH. On arrival, no water supply was available. By good grace of the American Medical Unit, two water carts were loaned until a \( \frac{1}{2} \)" water point was extended from their unit, but five weeks passed before this happened. Later, the engineers laid a pipe from Sapphire Mine, over a mile away, and a reticulation system was gradually extended through the hospital. The unit held 600 patients when this was done.

There were air raids every moonlight night about 9 p.m. This was the time of the change of day and night staff, and there were many difficulties when handing over in the blackout. The dark green mosquito nets tucked round
Arrival of Sisters to 2/9 AGH, 1942.

every bed (malaria precautions) did not help the staff sort out the new patients in dim torchlight, many of whom needed oxygen, IVI Quinine or blood transfusions. The pathway for the Japanese bombers was in line over the 2/9th AGH to the airfields at 7 mile, or the harbour, which were the targets. The planes would be picked up in searchlights, and flak often fell on the hospital. On one occasion bombs were dropped on the 2/9th, miraculously without loss of life.

The food was of a limited variety and became monotonous. Bread was available from the Field Bakery, but it became mouldy very rapidly. All rations were either tinned or dehydrated, a new process at the time, and not very appetising when cooked in chlorinated water. The Red Cross provided extras for patients, such as jellies, lemon or orange cordial and Milo. Refrigeration was not available in the wards till the New Year, but a “hot box” with a daily block of ice in each ward, helped in its limited space to keep drinks cool. It tested the ingenuity of the cooks and staff to make up suitable food and drinks for sick patients.

The medical records and clerical staff were on duty 24 hours-a-day. Their work load was heavy with large numbers of admissions, discharges, transfers and evacuations to mainland. Accuracy was essential in the reporting of deaths, wounded, very dangerously and seriously ill patients, as well as staff movements and statistics.

Living conditions were at first very primitive and uncomfortable. Tents had been hastily erected, and many had to be moved to more suitable sites because of the floods of water and mud. Everyone learned to live with mud, canvas stretchers, packing cases, mosquito nets, and the wearing of gum boots and ground sheets to the showers. Clothes rotted in the heat and humidity and rats and insects seemed to enjoy eating the sister’s underclothes. Many of the tents were mouldy and leaked.

The Mobile Laundry Unit did the laundering of hospital linen and uniforms. At first, uniforms were worn rough dried and white collars were discarded. The situation improved in the New Year. Because of malaria precautions, khaki boiler suits and gaiters were worn after 6 p.m., and some sisters were issued with men’s khaki trousers and shirts until enough boiler suits were available.

The sulphonamides were the only anti-biotic drugs available at this stage, Sulphaguanadine was the treatment for dysentry (which was prevalent in large numbers, it was called “cement” by the troops). Infections and wounds were treated with sulphanilamide, powder and oral tablets. Malaria was treated with a course of quinine, atebrin and plasmoquin, followed by atebrin maintenance. Quinine was taken daily as a suppressant. Cerebral malaria and black-water fever was also present, sometimes causing death.
There was a great deal of bedside nursing care. Frequent rigors and the comatose scrub typhus, (no known drug for treatment) required constant nursing care. Priorities had to be worked out, as there was not enough time in the day. It was essential to carry out all treatments, give adequate fluids, and carefully observe patients. It was a cause of concern that the best was not being done for everyone in making patients more comfortable or given suitable tempting food and fluids. We could not have managed without the help of other patients.

The compassion shown by the patients for each other was outstanding. They helped with the sponging, feeding and giving of fluids. They often worked late into the night. They were so patient with the sick boys, talking to them, sitting with them or fanning them for hours with a magazine.

In the report on 25 December 1942, the CO commented that the staff of the 2/9th AGH was so heavily overtaxed, that the organisation would break down unless reinforced. He recommended more accommodation be provided, both in hospitals and convalescent depots.

It was with great relief when, in January 1943, the 2/5th AGH arrived to set up a hospital at Bootless Inlet near Moresby. Some of the sisters, while waiting, moved into the 2/9th AGH to give some help. It was then that the staff of the 2/9th AGH had their first day off since arrival—for the sisters, over two months.

A general all round improvement occurred in the New Year. Grass roofs and floor boards were installed in the acute wards, and the dysentry ward was fliescreened. Best of all, kerosene refrigerators were installed in every ward. The food for light diets improved—some fresh meat, fruit and vegetables appeared. The wards took on a neater appearance, and became more manageable, as more beds, lockers, overbed tables, mess gear and linen (especially pyjamas) were issued. Gardens were planted and flourished around the area.

The co-operation between the staff of all departments (eg. dispensary, 'Q' store, ration store, kitchens, pathology, administrative staff, physio) and the ward staff, each helping the other when the workload was overwhelming, and was an outstanding feature during these four months. The great respect the doctors, sisters and staff had for those brave and gallant men who fought against such odds on the Kokoda Trail, helped overcome many of the difficulties at "17 Mile".
POSTSCRIPT

In October 1943, a group of AANS from the 2/9th AGH, who were on leave from New Guinea, were invited by Major-General G.A. Vasey, Commander, and men of the 7th Division, AIF to lead their march of honour through the streets of Sydney. The 7th Division had just returned from New Guinea, and arrived in Australia to be received by the people of Sydney.

This was a unique occasion, as no sisters had ever taken part in a Divisional March of Honour. They received a warm and tumultuous welcome from the thousands who lined the route.

For the AANS of the 2/9th AGH who had nursed so many of these men who had fought so gallantly over the Kokoda Trail, and who were marching with them, it was a very moving experience.

This article first appeared in Grey and Scarlett, the Magazine of the Royal Australian Nursing Corps, ARA — Editor.

Colonel Joan Crouch ARRC, a trained nurse, was appointed to the Australian Army Service in 1942, and served with the 2/9th AGH in New Guinea and Morotai, and continued in the Australian Regular Army after the war. During the Korean War she served in Japan and was posted as Matron, British Commonwealth Communications Zone Medical Unit in Seoul, Korea. In Australia she served in Camp Hospitals, Royal Military College Duntroon and School of Army Health and before her retirement, was the Assistant Director of Army Nursing Service in Southern Command.

DEFENCE FORCE JOURNAL AWARDS

The Chief of the Defence Force has accepted a request from the Board of Management to cease the award for the best original article in each issue of the Defence Force Journal. It has become increasingly difficult to judge articles in order of merit due to the wide variety and high quality of material submitted for publication. Therefore, to be fair to all contributors, in future, no prize will be awarded.
INTRODUCTION

This article examines the domain of engineering design in the Royal Australian Navy (RAN); it has been prepared to help identify the "role(s) of (engineering) design in the RAN." The article examines:

- what is it that characterises and defines design;
- why the RAN must be intimately involved in design;
- the extent of current RAN design;
- discussion of factors affecting the degree of "in-house" design ability;
- implications for future RAN design activities; and
- examples illustrating the points made under the headings above.

Throughout the article reconciliation is attempted between:

- the external national environment and the RAN; and between
- the RAN as a whole with the existing (but small) RAN design community.

THE ENGINEERING DOMAIN

Engineering has been defined variously by a great number of people. The following is the preferred definition of the writer:

Engineering is the economical transformation of input materials into output artefacts beneficial to society.

Fundamentally engineering comprises design and implementation, where design is defined as follows:

- "... is the central theme of all professional engineering activity. It is primarily a strategy of creative problem solving." [SVENSSON preface]
- "... engineering design involves forming the most accurate image of an artefact that will perform a set of functions to satisfy given objectives, having regard to the requirements of the market with its discipline of cost." [EDE preface]

Implementation means the transformation of the inputs into the desired outputs by following the methodology inscribed in the design.

The product will only be useful to society and thus capable of a continuing existence over a sufficient time period given satisfactory logistical support—that is spare-parts, maintenance procedures, tools, test-equipment and trained people.

Finally, maintenance is actually a special case of the more-general process of "engineering problem solving by design." Maintenance engineering itself includes the design of maintenance strategy plus its implementation. This will be elaborated further.

THE NATIONAL CONTEXT FOR THIS ARTICLE

EXTERNAL (INTERNATIONAL) CONCERNS. Australia is moving towards an independent stance in political, economic, sociological and defence matters; this is occurring in the international arena, and, even more importantly, in the regional context. This brings responsibilities, and the need for new ideas and abilities, which in turn requires an innovative approach to material
procurement. This is particularly so in defence material where so much of that available from overseas is produced primarily for the differing requirements of Europe and the North Atlantic Treaty Organisations (NATO) treaty areas (which oddly enough does not include recent centres of world tension—the Middle East, Iran or Afghanistan).

The countries of the Association of South East Asian Nations (ASEAN) have been steadily increasing in wealth and importance, and have begun to upgrade their defence capabilities in response to their greater needs, and greater abilities. Australia has an increasingly important opportunity to forge closer co-operation with ASEAN and South-West Pacific nations. An effective means of such co-operation would be the provision of Australian (designed and built) defence material on an increasing scale. In the unlikely event of such co-operation breaking down then rather than putting major arms-supplying nations under the stress of allocating arms on political grounds, Australia would be better off to have its independent means. This will not be accomplished rapidly; achievement can only be assured by the steady building of our innovative capability. This applies at least as much to RAN needs as any other, because a navy needs the full spectrum of technological goods. Thus, even to meet present needs satisfactorily will need a strong design capability; to react to increasing involvement in regional affairs will need even greater effort. Such effort should begin at once.

**RAN Engineering at a Crossroads**

The RAN can be considered at a crossroads as regards design. In the past there have been a number of ships designed in Australia for conventional non-combatant roles, however all combatant ships have been designed overseas. There have been examples of combat-systems design either in component systems (Ikara, Mullok) or in overall system-integration (SWUP, DEupdate) however the most recent programmes have reverted to design overseas (AF and DDGmodernisation). This overseas "supermarket" approach is based on economic and risk factors—cost will be less where the R&D costs are amortised over greater numbers in the implementation, and where the performing activity has much recent experience in such work (resulting in greater productivity). Risks will be less because of better knowledge of the technologies involved since many of the components are produced in the same country. However longer-term costs will be greater due to life-cycle costs and to opportunity costs of missed employment in Australia; and long-term risks will be greater due to the reduction of national sovereignty and independence of action.

Nevertheless the New Construction Submarine (NCS) programme augers well to build on recently-developed expertise in the combat-system area (at the Submarine Warfare Systems Centre (SESC)). This contrasts with Hull, Mechanical and Electrical (power) (HM&E) areas which will be designed overseas (since there is no Australian design experience applicable to submarines). Yet another innovative ship class (the Mine-Hunting Catamaran (MHCat)) is using local expertise in the HM&E area and a hybrid approach in combat-system design.

To properly accomodate pressures for local design effort we must identify and inventory our present capabilities wherever they exist (eg RANTAU, SWSC etc), and thence develop efforts in these and other areas. Greatest RAN benefit will come from the nurturing of our very own resources—recently-graduated degree-qualified engineers.

The first step must be to recognise the essential nature of design in our midst—then to commit to its development leading to greater self-reliance and to greater relevance of solutions in the Australian context. This article is a discussion of these matters; it is intended to assist the beginning of this identification and development process.

**AIM**

The aim of this article is to define the role of engineering design in the activities of the Royal Australian Navy (RAN).

**The Current Scene**

**What is Design?**

Design has been defined earlier. In engineering, design is essentially a problem-solving process. The stages of this process (which is cyclical) have been variously denominated thus:

1. "identification of needs;
2. development of suitable concepts . . . which satisfy the needs;
Figure 1—THE DESIGN CYCLE Model

- recognition
- analysis
- performance spec
- test design
- decomposition
- selection
- synthesis
- evaluation (modelling, simulation, prototypes)

- design spec
- QA design
- implementation
- contract conformance testing; QA
- acceptance testing by users
- modification and retest
- acceptance
- maintenance; reaction to changes in environment

Figure 2.
3. verification that the concepts ... satisfy the needs . . . ;
4. decision as to the final solution;
5. implementation of the chosen solution; plus revision and modification in a recursive manner." [SVENSSON]

- "... the design process ... can be explained as follows: conceptual design involves identifying needs or requirements, weighing up and analysing possible solutions . . . , and coming to a . . . decision as to which design(s) will be most promising. The next . . . phase is to reduce the concept to a practical scheme design (sic) that will show whether a useful product is likely to emerge. The detailed design must then be completed." [EDE sect1.2]

- Figure 1 shows the items listed in [SKINNER84]; they are also discussed in the next paragraph.

- "Recognition of the problem; definition; preparation; analysis of preparatory material; synthesis of solution(s); evaluation and selection of solution; presentation of information to others to execute the solution." (BUHL)

thus there is consensus over a broad range of writers. The individual steps are as follows:

1. recognition of the problem—this is self-explanatory; also it an essential step because in general the design process is not begun if there is no problem.
2. analysis of the problem;
3. statement (specification) of user requirements; this is sometimes called the "performance spec".
4. design of the acceptance tests—this is based on the requirements spec, rather than the design spec which is used for the implementation;
5. decomposition of the requirements;
6. selection among alternatives to meet detailed sub-requirements; this includes practical investigations such as modelling, simulation, or prototyping in design features with greatest technical risk;
7. synthesis of design components;
8. evaluation of the overall design, for example by modelling, simulation or prototyping;
9. generation of the design specification; this document will form part of the implementation contract; it is the basis for quality assurance and assessment of contract compliance;
10. design of Quality Assurance (QA) strategy;
11. implementation (the actual building process);
12. Quality Verification (QV)/Control (QC); contract compliance testing (sometimes called Product Acceptance Test and Evaluation (PAT&E)) and that testing performed by the developing agency to answer questions of design methodology (this is sometimes called Developmental Test and Evaluation (DT&E));
13. performance testing—the prime purpose of performance testing is to determine whether the user requirement has been met (this differs substantially from contract compliance testing which determines whether the design spec has been met (see figure 1); it is sometimes called Operational Test and Evaluation (OT&E) or OPEVAL; OT&E is invariably performed by representatives of the users;
14. modification and retest;
15. acceptance; and
16. modification to the requirements spec to accommodate environmental changes.

It should be noted that the design methodology described is both hierarchical (gives rise to natural decomposition into components) and recursive (the same procedure applies precisely for a subsystem as for the system itself, and is initiated by the decomposition of the system requirement). See also figure 2. Every design decision gives rise to the creation of structure.

What is the Relevance of Design to the RAN?

We must innovate to keep pace with change. This requires the ability to adapt and improve performance and to make more economical use of resources (with minimal undesired by-products). We must adapt the material from elsewhere to the unique Australian environment, especially concepts and material developed expressly for different environments and different purposes. Above all we must keep up with technological change because, in the field of warfare, the state of the technological art is the threat we will next face.

This need for innovation to cope with change has been articulated recently for the Australian context generally. The RAN is no different to the remainder of Australian society.
Who Should be Involved?
The following should all be involved:
a. ships and establishments wherever engineering design is practised and/or where design expertise exists—this prescription includes virtually every command, ship and establishment;
b. all engineers whether civilian or uniform—junior engineer officers (JEO) especially;
• “The best design engineer is the new graduate. However, he must be supervised by an experienced engineer. In this way an employer has the ideal mix of academic skill and experienced judgment”, [ACAE pD-8]
c. users should state their requirements and define the subsequent OT&E; there is particular scope for more rigorous statement of user requirements which in the past have not always been stated objectively;
d. there should be an interaction with the wider professional engineering community, both academic and industrial; in this it is instructive to examine the role of the professional engineer as defined in Australian terms—fundamentally such a person is involved in innovation. [EDE p3.5e] notes that in “UK compared with other EEC countries or the USA has an equivalent number of scientists and engineers in research, but only one sixth of the number . . . between the laboratory and market place”. [NATECHSTRAT p.10] notes in Australia a similar inadequacy of interaction between tertiary education and government research institutions (on the one hand) and industry (on the other).

“In-House Design”
A successful design will follow from a clear statement of the problem; this implies a good knowledge of the problem, as well as a good knowledge of the environment, which in turn implies a good knowledge of the state-of-the-art. This can be described as a spectrum thus:

<table>
<thead>
<tr>
<th>problem</th>
<th>environment</th>
<th>state of the art</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAN</td>
<td>user</td>
<td>uniform civilian</td>
</tr>
<tr>
<td></td>
<td></td>
<td>industry</td>
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<tr>
<td></td>
<td></td>
<td>Defence</td>
</tr>
<tr>
<td></td>
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<td>academic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>engineer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>scientist</td>
</tr>
</tbody>
</table>

Figure 3

The benefits of in-house design are four-fold:
a. better relevance of solutions;
b. more immediate solutions;
c. more responsive design effort—conflicting priorities are less likely; and
d. the design skills are better sustained.
The costs of in-house design are: use of scarce resources especially design manpower, and reduced depth of knowledge in critical design areas because the effort is spread too widely.

The Current Situation
The current situation is confused because there is no detailed statement of intent in the development of design capability, nor even of the current capability.
Most of current design work relates to modifications and maintenance improvements—important work, but especially demanding as far as meeting new requirements on any large scale; thus it can be argued that the design skills for extensive innovation will atrophy on a very wide scale (civilian as well as uniformed engineers). There is a very low-level of uniformed engineer involvement even though large numbers of graduates with appropriate skills are available each year. This is discussed in more depth in [SKINNER 84].
There is a realization that we have both a different environment, and differing requirements than the source countries for overseas material. This should be addressed by locally conducted OT&E and then by locally designed modifications to meet local requirements.
There is a very low-level of awareness in Australia of maritime needs (other than coastal needs which are mostly obvious); this implies the RAN must take a leading role in educating the Australian people to be aware of their maritime surroundings. The importance of Australia in maritime matters reflects our reliance on seaborne trade, and on our geographical location in three oceans (and as a secondary effect on the size of land-mass and hence the length of coastline).

Changes to the Present Circumstances
There must be a top-down management commitment to meet our needs and form our own resources. This requires us to identify the resources we have; these include design skills, a vital ingredient; and then we must develop them to greater capability; finally we must sustain them through use.
“Made in Australia” Ships and Systems

The following are representative of material-items capable of being “Made in Australia”:

- New Construction submarine (NCS);
- AUSDES (New Surface Combatant Destroyer)
- closed-circuit television (CCTV) director-aim camera (DAC); optical fibre internal communication cables; optronics (optical/electronics) fire-control directors; and other optical techniques;
- small ship ESM/sonar
- towed sonar arrays;
- weapon upgrades -Mk44 torpedo for example;
- training systems similar to the bridge simulator, such as ship operations-room training systems (either fixed-site, or more beneficially in portable vans capable of being connected to ships alongside and thence make use of actual ships equipment);
- office automation to handle the administrative and non-operational functions in an integrated manner, using for example a local-area network; this would be augmented by low-priority radio, and telephone link when in-port, to headquarters;
- offboard data-processing—intelligence, acoustic, esm, personnel, etc;
- knowledge-based systems (“expert”) and other forms of artificial intelligence (AI);
- satellite communications;
- integrated ESM/ECM/ASMD

Design for the Future

When one looks to the future it is even more alarming.

Different international perspectives and needs imply a separate geopolitical and strategic outlook for Australia, which will probably move towards a more regional arrangement—perhaps including Japan. To accommodate this we must start immediately to build self-reliance by such means as the ability to innovate as discussed in this article.

Greater government encouragement for local manufacture will lead to greater R&D being performed here—RAN design capability is an essential part of this.

DSTO manpower is deficient and must be augmented—if necessary by the in-house ability of the RAN.

New threat weapons will require very innovative counters—look at the activity to counter Exocet in the last few years—nothing much had happened until they were fired in anger.

Other formidable capabilities to be countered include: nuclear-produced electromagnetic pulse (EMP), beam weapons, low reflectivity vehicles (“stealth” aircraft, cladded submarines), anti-radiation missiles (ARM), greater range and supersonic-speed missiles, and saturation attacks of multiple weapons from a variety of directions and/or platforms.

Similarly increases in capability for their employment will require countering—better command, control communications and intelligence (C3I) will make even low-capability weapons more effective; this must be countered also.

Gathering the Threads

Design is an essential part of engineering.

The Design Model (figure 1) is of increasing importance to the RAN.

Referring to the model there are a number of deficiencies in the current RAN capabilities; areas needing closer examination are:

- statement of user-requirements in an objective manner that also produces test requirements for Operational Test and Evaluation (OT&E);
- the design process itself; and
- conduct of OT&E.

Innovation is the solution to coping with increasing rates of change—failure to innovate effectively will result in the deterioration of capability. Innovation is a vital concern to the RAN—in material this means that a well-developed design capability is essential. A substantial part of this capability must be “in-house” to be effective.

Conclusions

There is a current design role, and an expanded future role for engineering design in the RAN. The future role is expanded because we must ensure the RAN is able to adapt independently to change.

The RAN has an essential interest in engineering for maritime needs because it is best qualified, and because solutions from elsewhere are less applicable.

Skilled people exist to carry out the design—their skills will need development and sustenance.

In-house design provides greater immediacy, relevance and flexibility, but at some added cost. Nevertheless there are a number of other
benefits from in-house design especially in personal motivation of those involved. Local design will support local manufacture which is desirable anyway and has government support in principle. This is the path to an assured future for Australia.

Design is an essential basis for innovation—which is the mark of a profession; the RAN is a leading member of the profession of arms and thus must demonstrate its professional ability to guide its own destiny in support of an advancing Australia.

NOTES
1. Engineering design to distinguish from other design fields such as educational course design, architectural design etc. In this article the term design used alone refers invariably to engineering design.
2. Submarine Weapons Update Project.
3. Australian Frigate being built at Williamstown Naval Dockyard, Vic. There is no Australian involvement whatever in the design, integration or test of the combat system—all of which is being conducted in the USA.
4. As discussed in [NATECHSTRAT].
5. Discussed in [SKINNER84].

6. The role of innovation is essential to any profession—such as engineering—because it provides the ability to adapt to change; without this adaptation the skills will wither and the knowledge become irrelevant.
7. The National Technology Strategy (op cit).
8. As discussed in [SKINNER84].

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[ACAE]
[BUHL]
[EDE]
[NATECHSTRAT]
[SKINNER84]
SKINNER, Chris J. CMDR R.A.N. 'Design Investigation Tasks for Junior Engineer Officers (JEO’s)—A Proposal'. 14 June 1984 Accepted for publication at the 1984 Naval Engineering Symposium.
[SVENSSON]

BOOKS IN REVIEW

The following books received in this issue of the Defence Force Journal are available in various Defence libraries.

Paul, Raymond, Retreat from Kokoda, Sydney, Heinemann, 1983.
Introduction

The purpose of this article is to present a broad view on instruction techniques for instructor officers of the Royal Australian Navy, Naval Reserve (NRC). It supplements material being given during the Instructor Development Course onboard HMAS LEEUWIN in May 1983. It includes some views on computer-assisted instruction as it will affect Naval training.

Background

For some time now, Instructor Officers who do not have educational training have needed some guidance in how their courses should be presented. It has been found that presentations range from the traditional classroom expository approach to the colleague-experimental method. Such methods have been dependent on the attitudes of the instructors. If the instructor prefers to stand in front of a formal class in a traditional, pedagogic fashion then he does. On the other end of the scale, if an instructor merely sends his student to work with more senior students who know the ropes (the "sit by Nellie" approach) then that is offered to students.

Furthermore, these methods can be applied to different tasks in different training ships. If the student is to be instructed in sailing, boating, signalling, gunnery, drill, cooking, the method used has largely depended on the instructor's own experiences and attitudes.

Therefore, in May, 1982, it was decided to mount a training seminar onboard HMAS Stirling for instructor officers. There, it was confirmed that methods vary widely over all the training ships and results varied accordingly. Some useful guidelines were hammered out at that seminar and this May 1983 instructor development course was developed.

During the interim period of a year, a discussion paper was circulated to examine our methods of skills training (Pyke, 1982). It has been found that mastery learning methods were most commonly used in our instruction and assessment techniques, therefore this paper examined that concept and its methods of assessment. The paper showed methods of instruction, how time to learn can be used as a measure, how objectives can be framed to ensure that mastery learning is effective, how criteria can be established to aid assessments, how modules can be framed, what is meant by personalised system of instruction, how instruction can be programmed, what computers and simulators can do to assist instruction and what staff development can be done to help these aims of individualised instruction.

That discussion paper has brought forth much comment which has been useful in framing this instructor development course.
More recently, a study has been made of practices in individualised instruction in other military forces overseas. Generally it has been found that concepts of self-paced mastery learning and individualised instruction has been used by the Navy and Air Force of the United States, the Navy and Army of the USSR and the South African Navy (Pyke, 1983). Reports have been analysed and the views expressed for and against individualised instructions are outlined in this article.

It is felt that such experiences can assist our instructor officers to understand individualised instruction and how it can be used for practical purposes in training for sailing, boating, signalling, gunnery, drill, cooking.

**US Navy and Air Force Experiences**

Useful work has been done for the US Armed Forces by:

- **Naval Training and Evaluation Groups**, Orlando, Florida;
- **Navy Personnel Research and Development Centre**, San Diego, California;
- **Air Force Human Resources Laboratory** Lowry Air Force Base, Colorado;
- **Air Force Human Resources Laboratory** Brooks Air Force Base, Texas;
- **Community College of the Air Force**, Lackland Air Force Base, Texas; and

A significant paper was presented by Killian (1977) to the annual meeting of the Association of Educational Communications and Technology at Miami.

He pointed out efforts by the Navy in the early 1960s to reduce training time and costs with instructional technology resulted in efficient technical training, but at the expense of motivation and esprit de corps. A Group Assisted Self Paced Program (GRASP) was specially set up and it was found that by retaining self-paced, individualised instruction, yet building in group identity and instructor leadership, the GRASP Program has proved even more efficient than purely individualised instruction.

A comparison of individualised and conventional instruction was done by Hall and Freda in the Orlando Evaluation Groups (1982). They inferred from their study that training time, and thus cost could be reduced by converting current conventional instruction courses to an individualised instruction format — at least for higher mental ability students.

In San Diego, Johnson *et al* (1982) carried out an evaluation of individualised job specific maintenance training. They suggested that the initial high cost of material development could be offset in the future by training time reduction.

Another aspect of individualised instruction is the assistance which can be given by computers and simulators. This was done by the Navy Research Center in San Diego (Lahey and Coady, 1978). They compared use of PLATO computer terminals with lesson booklet presentation and concluded that learner control, with or without guidance, is not superior to programmed control as a computer based instruction mode. However, they assert that the use of learner control lesson structure may be desirable because of the possible economies to be effected.

The U.S. Air Force Human Resource Laboratory has also evaluated PLATO Computer Training and hoped that innovations will offer the potential for more cost effective technical training (Mochavak *et al*, 1974).

At Brooks Air Base Hansen *et al* (1973) had made a study to show that adaptive instructional models, utilising a computer, constitute the means by which effective training can be accomplished with a minimum expenditure of student time and instructional resources. Lewis (1974) had shown considerable savings ($40,000 pa in a precision measuring equipment course at the same base).

An interesting study was made by Dallard *et al* (1980) on the value of computer managed instruction. They examined the use of computer technology to improved shipboard instruction and training in respect of general damage control and in administration training and concluded that the graduates significantly out performed groups trained under conventional methods. They assert that computer managed instruction is technically and operationally feasible aboard ship.

It may be of interest to know that individualised instruction can be used for increased class sizes, thus confirming that the instructor now can be a facilitator and catalyst with the computer simulators as the main agents of instruction. Squires (1978) pointed out that class sizes can be increased from 18/1 to 30/1 without
any significant differences in student achievement measures or attrition rates.

Positive attitudes by instructors of military students have been reported by Tatsuoka (1978) and Kribs (1976), in respect of TRIDENT Missile training. Other supportive reports on individualised instruction have been made by the Air Force School of Applied Aerospace Sciences (1978) and Stanford University (1977).

Campbell (1977) of the Community College of the Air Force comments that there are now new roles for occupational instructors. He examined large scale use of computer assisted and computer managed instruction in individualised instruction. He states that the effect on the instructor is to change his role from lecturer/testor to training guidance counsellor and advisor to students.

Soviet Education and Training

Before we examine the philosophies of Soviet Military Training, we should look at the bases of their education system.

Revolution generated the political ideology in the USSR. Tsarist Russia collapsed leaving a vacuum for Leninist and Marxist Philosophies of the early 1900s (Floyd 1969). In the chaos which followed the revolution a strong governmental edifice needed to be erected (Lilge, undated).

The various republics of the USSR joined the union under varying degrees of coercion. They brought with them their own customs, cultures and ideologies. These varying republics needed to be welded together into a common idea (Ludlow 1973).

Concepts of communism were that ideal and these have been hammered out over half a century. During that time the education system was overhauled and during that overhaul an infusion of political ideology was structured into the system (Bereday and Stretches, 1961).

The formal political structure in the correct education system is age structured. The Octoberists (up to 10 years) the Pioneers (10-14 years) and the Komsonol (14-28 years) political Youth Groups cater for increasing ages of students and for political indoctrination at all levels (Grant, 1964).

This para-scholastic structure emphasises the importance of leadership, living in collective groups and cultivation of excellence. Since the education system is centrally controlled it is also politically dominated through this overlay of communist structure. The curriculum has political overtones. Classes are encouraged to be self help (in links) and competitions designed to be politically desirable (Olympiad competitions).

Therefore the student in the USSR has a thorough political indoctrination. The students proceed through the courses knowing what to expect politically. Lilge (undated) points out that Lenin envisaged the educational system to teach the principles of communism (Solzentsyn, 1976).

The concept of vosipitanie, or total education of the whole self, is important when examining the Soviet education system. It is in contrast to the laissez faire type of education seen in most Western Countries.

If we compare the education systems as we know them, with the USSR System there is a contrast between our commitment to paramountcy of the individual with the USSR’s commitment to paramountcy of the State. In our system the emphasis is on the State’s responsibility to serve the individual while in the USSR the emphasis by contrast is on the individual serving the corporate state. The former promotes individualism and the latter conformity.

Bereday and Stretch (1961) suggested that more time is spent in America than in Soviet Schools on political education. They explain this surprising observation by rationalising that “it takes more time to elicit civic allegiance in a new, pluralistic and free society than in a more traditional, more monolithic and more controlled society”.

With this background in educational philosophy we can now turn to how they affect military training. There we see a distinct elevation of political work in training. Marshall Grechko stated “The first and foremost requirement (of officers) is to be ideologically convinced — an active champion of Party policy”. Colonel General M. Tankayev affirms this “The Soviet Officer is above all a political indoctrinator”. An editorial in Krasnaya Zvezda claims “constant political work among servicemen is the paramount task of commanders”. Marshall Grechko stated at a graduation ceremony that a Soviet Officer “must appraise any matter and any step . . . from the viewpoint of the Communist Party, the Soviet People, the Soviet State and the Soviet People” (Goldhamer, 1975).
Soviet Military Training

An examination of military training in Soviet Russia shows that they also use individualised instruction to a considerable extent. However, Suggs (1982) reports that "the Soviets strongly emphasise the human element of the military equation, maintaining that the best weaponry is useless without personnel trained to the highest level of proficiency". He also pointed out that "the Soviet Navy's methods of training and its personnel practices and policies contrast sharply with those employed by the US Navy and most other navies outside the communist bloc".

Training in the Soviet Navy is permeated with political ideology. Marxist-Leninist thought recognises immutable "laws" of society as well as immutable "laws" of warfare.

An essential part of any Soviet education system is intensive political indoctrination. This point is emphasised by Babenko (1976) — "The Socialist System has given birth to new types of soldier and officer. The socialist army — owes its origin to Lenin". In his chapter on training, Babenko shows that the Soviet Commander is an active soldier of the Party, an organiser of political indoctrination of his men.

However in technical training, he says that all servicemen without exception are trained flawlessly. They recognise that a poorly trained man can delay or altogether frustrate the accomplishment of a combat mission by committing a mistake in handling complicated devices or weapons systems. Thus, their emphasis on individualised instruction and computer simulator managed training programmes. This is linked within the single process of training and education so that a well trained, motivated and patriotic sailor will result.

Even their discipline is built on a high sense of duty — rather different to our disciplinary basis. Their allegiance to duty and strict and precise observance of order and rules is based on high political awareness and communist upbringing of servicemen, on their deep understanding of their patriotic duty, the internationalist tasks of the Soviet People and their infinite loyalty to their country. The Commander's concern is for higher fighting ability, better training, the formation of the Marxist-Leninist outlook and high moral qualities.

Small wonder then that Weinberger, US Secretary of Defence said in his preface to "Soviet Military Power 1983" that "there is nothing hypothetical about the Soviet Military Machine" and calls for a clear understanding of their doctrine, their capabilities, their strengths.

Goldhamer (1975) analysed the Soviet soldier and provided a clear view of military training. One of the objectives is to reduce the length of military training and to teach the use of modern weapons and a great mass of highly technical equipment. Marshall Grechko points out that "when we train officers we are not looking at today, not at tomorrow but... to foresee the future that awaits a Lieutenant just beginning service". They now talk of cosmic space as a new arena of possible combat action.

It is said that Soviet Military training is intended, as is training in most modern navies to produce not just a sailor but a specialist. In many sub-units of the missile forces almost every fighting man has a specialisation that is different from others in his sub-unit.

More recently some Soviet articles have been urging initiative. Young Naval Officers are encouraged to develop independence. Krasnaya Zvezda urges Senior Officers to encourage them to display creativity and to have no fear of undeserved reproaches for having made a bold decision. Therefore we see an ambiguity in the concession that undeserved reproaches may indeed follow a bold decision. They have reported that officers here acted listlessly and without initiative in complex situations and point out that if he has a good Communist conscience he has nothing to fear and there is no reason for him to avoid making a decision.

There is an emphasis on individual learning now and there is a principle of increasing importance in military training that "each individual is different". Individualised instruction is particularly important in Soviet airforce pilot training so that training and indoctrination of each pilot can take into account the individual characteristics of each.

Recently the Naval Academy at Vladivostok introduced humanities type courses into their specialist training syllabii. This was an attempt to broaden the training of naval personnel beyond the immediate specialities. When analysed, however, it is found that even though the so called "humanities" aimed for 20% content, in reality, most were of a political science nature. Thus, it appears that they have injected more communist indoctrination into their naval personnel in order to reinforce their individual patriotic zeal.
General — Computer Aided Instructions

One aspect of the individualist instruction of the Soviet Forces is that they do attempt to produce a generalist first then a specialist later. This is apparently becoming common in the US Navy, also, where computer aided course modules are designed so that instant specialists can be trained when new technologies become available. This appears to be a key to military training for the future — create a dedicated, general technician and when a specialist is required, inject a computer aided module which will produce the desired specialist at short notice.

This philosophy has been adopted by the Australian Navy at hardware level with the modular replacement parts for the new FFG's. However, there appears to be a need for an overhaul of the educational programmes to ensure that it happens at technical training level in the future.

One of the basic philosophies for education for future technologists is to “balance the satisfaction of future technology needs of industry with the total development of the students so that an adaptable, mobile generalist will result” (ANZAAS, 1983).

Implications for Naval Training

With these philosophies and practical experience of mastery learning, individualised instruction and computer assisted instruction in mind it is now desirable to examine what the Navy should do in its training programmes.

It appears that there is a trend in both the U.S. and the Russian Navy toward producing a general technologist — even if it is based on different political premises. It is also apparent that there is a need for quick, updating courses so that instant technicians can be trained quickly — and retrained as quickly as new technologies overtake us. Therefore it appears that our training courses should be modularised and continually redeveloped as the demand requires. It is also necessary that, wherever possible, individualised instruction should be supported by computer simulators. These make modern technology more quickly available in an updated form and allow the students to master the course more quickly.

Specifically some of our courses could be presented as follows:

Sailing

A general sailing course showing the theory, how a boat uses the wind, parts of a sail, the aerofoil, the tack and the gybe, capsize and recovery.

Practical sailing showing the clothes, rigging a boat, sailing from a lee shore and a weather shore, feeling the boat, spilling wind and luffing up, how to tack, running, distribution of weight, how to gybe, broaching, getting in irons, returning to lee and weather shores, tidal and non tidal moorings.

Seamanship, including evolution of sail shapes and types of rig. Tides on the beach and ebb and flood races. Use of landing trolley, boat rollers. Sailing from mooring in tidal waters in light winds. Coming up to a jetty. Towing and being towed. Knots and cordage.


Buying a boat — car, trailers and the law. Coastal cruising — the chart, use of a transit and the compass.

The future in yachting.

With this core course, which could be aided by a computer simulator, the student is able to gain a good knowledge of sailing, sometimes without even getting wet. Thereafter the student could be introduced to the yachts which he would use — bosun, corsair, catamaran. There are good computer simulator packages available for specific craft to help the student.

With the general basis a student should be able to convert from one craft to another with ease.

Gunnery and Projectiles

A general course showing how a projectile is emitted. The history of guns. Muzzle and breach loading. Flint locks and firing.

Charges — flint locks and firing.

Detonation and ignition. Methods of striking.

Ballistics, trajectories, weight and mass. Gravity effects and wind action. Rifling.
Targets fixed and moving. Kinetics of aiming movement and wind drift.
Handling and care of guns and ammunition. Safe handling.
Ranging, inclination and deviation. Care of launchers, projectiles and propellants.
Safety: Range drill. Care of guns, rockets, projectiles, ammunition discipline.
Ranging at sea, mountings gymbals, gyroscopic aiming. Target detection surveillance.
Radar aids, Communications, Sea to air, Underwater detection equipment and communications.
Air-to-sea missiles.
Small arms at sea — care and safety.
The future in missile technology.
Each of these courses can be operated with a computer simulator developing to a full core course. As a result the student would obtain a good allround knowledge of gunnery. Thereafter the student could be introduced to projectile launchers which he could use — an armalite, a bazooka, a seacat. Modules dealing with these specialised items could be presented with their own computer simulations. The Boeing simulator for tank rocketry is a recent good example.

After the general basis is obtained the student should be able to convert from one item of gunnery to another, be it small arms, rockets or rifles. It is then that he could handle the actual mechanisms and be assisted by computer simulators dedicated to individual weapons.

Conclusion

Training in the Navy has reached a crossroads. With more sophisticated equipment becoming available, faster and faster, from future technological developments, it is becoming more difficult to train technicians. It appears that the larger international navies are moving towards producing an adaptable, mobile generalist who is capable of assimilating specialist training computer-aided modules with ease, as required from time-to-time.

It appears that computer simulators will be used much more in individualised instruction modes by future Navy instructors.
A Special Kind Of Service

By JOAN CROUCH

The 2/9th Australian General Hospital was raised in South Australia in December 1940, and two months later, sailed for the Middle East. The staff (AIF Medical and Nursing Services), from all states of Australia was destined to serve not only at Amiriya and Nazareth in the Middle East but also in New Guinea (Port Moresby), and in the Netherlands East Indies (Morotai).

This book records their courage, loyalty, selflessness and compassion for thousands of sick and wounded AIF soldiers, often under appalling conditions — sandstorms, rains and floods, intense heat and leaking tents. The problems of administering a rapidly expanding hospital, the nature of the working relationships between doctor, sisters, orderlies and staff, the spirit of comradeship and the high regard in which the Australian soldier was held are all described in detail.

Shortages of equipment and long hours of duty tested their skills and endurance during the Kokoda Trail campaign, but their ever buoyant humour and ability to make an all-in effort when the going became tough provided the basis upon which the 2/9th AGH won for itself a proud record of service which warrants recognition by future generations.

Illustrated by some 50 photographs, from both official and unofficial sources, this book will interest all those who served as doctors, nurses, AAMWS, VADS and medical orderlies with the 2/9th as well as other units and of course the fighting men of the AIF who knew at first hand the resourcefulness and dedication of this unit.

In March 1986 the Alternative Publishing Co-operative Limited, P.O. Box 146, Chippendale, NSW 2008, published A Special Kind of Service and pre-paid orders will be accepted immediately.

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The attraction and subsequent repulsion of Italian fascism and Benito Mussolini, for some Italians and Italian Americans, was directly associated with the individual needs of these people for self-regard. Benito Mussolini's chief supporters both in Italy and America came from the ranks of the lower middle class. Prevailing social and economic conditions in both countries caused many people to feel insecure, and to suffer from low self-esteem. By appealing to "national glory," and to the "superiority" of Italian culture, Mussolini was able to capitalize on the insecurities of the working class. He enabled these people to enhance their self-images through fantasy, denial of consciously intolerable realities, and the idealization of their leader. The advent of World War II was a consciousness-raising experience for many Italian Americans, as was the landing of the Allies in Sicily for most Italians. KEY WORDS: Low self-regard and Italian fascism.

Why were millions of Italians and Italian Americans attracted to Benito Mussolini and Italian fascism? Why did they later change their minds and turn against the fascist regime? Several scholars have conducted studies in an effort to discover why human beings embrace the fascist ideology. Erich Fromm's (1941) basic notion was that ever since the disintegration of the established authority of the Middle Ages, people of the Western world have been ambivalent about the burdens of freedom and dignity. According to Fromm, some people unconsciously wish to escape from these burdens by turning to authoritarian or totalitarian systems. However, it is common knowledge that modern forms of authoritarianism in which the state controls every aspect of the individual's life, is not limited to the Western world. Examples of it can be found on every continent of the globe, for instance, communist China under Mao Tse-Tung.

In their monumental study, The Authoritarian Personality Adorno et al. (1950) concluded that an "authoritarian personality" syndrome exists. A person is said to possess a predisposition for fascism if he is excessively conventional, authoritarian submissive, authoritarian aggressive, anti-intraceptive, superstitious, destructive, projective, cynical, overly concerned with sex, power and toughness, and given to stereotyping. Because of criticisms of the questionnaire used to determine these underlying attitudes, often called the F-scale, many scholars have been sceptical of studies describing the political behavior of people with "authoritarian personalities." A study by Fred I. Greenstein (1975) indicates that the connection between personality and overt political actions remains complex, obscure, and uncertain. In addition, advocates of the authoritarian personality syndrome do not adequately explain why many nations have lived under fascist and democratic regimes within relatively close historical proximities. Examples are Germany and Italy. Robert A. Dahl (1984) states that: "Conceivably, personality and character contribute less than
political culture to the shaping of democratic—
or despotic-persons" (p. 114). Paul Sniderman (1975) studied the relationship between self-esteem and political orientations. Sniderman stressed that "... insofar as the linkage between personality and political ideology is a matter of social learning, than high self-esteem ... ought to drive individuals towards accepting the norms of the political culture, whatever those may be" (pp. 220-221).

Several eminent psychologists and psychiatrists have demonstrated that a basic need for self-regard exists. Abraham Maslow (1970) gave emphasis to the human need to respect and value oneself, and to be respected and valued by others. According to Alfred Adler (1927), people have a deep-seated need for a stable, firmly based, usually high evaluation of themselves, for self-respect, or self-esteem and for the esteem of others. Research by William McDougall (1926) indicates that the sentiment known as self-regard is a most important one because of its strength and large scope. To Carl Rogers (1961), self-regard, in the first instance, is dependent upon receiving positive regard from others. Studies by Milbrath and Klein (1962) have established a correlation between self-esteem and political participation.

Benito Mussolini often appealed to the need for self-regard in his speeches and writings. For example, on 15 November, 1914, he wrote: "We are men, and live men, who wish to give our contribution, however modest, to historical creation" (p. 101). It is the thesis of this article that the attraction and subsequent repulsion of Italian fascism and Benito Mussolini, for some Italians and Italian Americans, was directly associated with the individual needs of these people for self-regard. To test this thesis, it is important to take into account certain significant events which occurred in Italy and America, between World War I and World War II.

Italians and Italy Between World Wars

Italian officials found themselves in a weak position during the Paris Peace Conference of 18 January, 1919. Because of the defeat at Caporetto, the Italian effort in World War I was not fully appreciated. The conference overlooked the fact that Italy had to conduct an offensive on a terrain of immense natural difficulty, which had been strongly fortified by Austria before the war (Hearder & Whaley, 1963). Italian nationalists and imperialists were dissatisfied with the results of the conference. The delegates granted Trent, Trieste, and the Brenner frontier to Italy. But they did not recognize Italy’s claims to Fiume and Dalmatia, nor endorse Italian expansionist aims in Albania and Asia Minor. To many Italians it appeared that France and Britain had secured great territorial benefits, while Italy, whose soldiers had fought well for the allied cause, had received very little by comparison.

To make matters worse, Italy faced serious domestic problems after World War I. Members of the middle class felt insecure because of rampant inflation and the social tensions it produced. Farmers and industrialists worried about the turmoil stirred up by discontented workers, while hungry peasants pressed their demands for land. Workers sometimes seized control of the factories in which they worked, and many Italians feared that what had happened in Russia in 1917, would now take place in Italy. Thousands of soldiers returning home from the war could not find employment, and this added to Italy’s economic woes. The time was ripe for radical men, revolutionary ideals, and drastic action.

Benito Mussolini’s chief supporters came from the ranks of the lower middle class. Many of these people were frightened by the pretensions of the lower class, with their threat of communism, and at the same time they were resentful against the power and prestige of the great capitalists with their huge, ill-distributed fortunes. Many people in the lower middle class felt insecure and suffered from a low self-regard. By appealing to “national honor” and “national glory” by promises to make Italy a leader in the world, Mussolini was able to secure the allegiance of large numbers of the working class, who could enhance their own self-regard through fantasy, denial, and the idealization of their leader. In the words of Andrew Rolle (1980): “The successful defense of selfhood once required tempering character armor and bolstering self-esteem ... this effort was a psychological one, at times relying on denial and projection, for example, in the defense of the ego” (p. 181).

An Italian seizure of Fiume in 1921 was symptomatic of a general nationalist discontent. Political and social unrest furthered the growth of fascism, and in 1922 Benito Mussolini and his followers marched on Rome and seized con-
trol of the government. Mussolini had been a socialist, but he realized the possibility of acquiring power by moving toward the right, while retaining some socialist ideals. He gradually created a totalitarian corporative state and attempted to solve Italy’s social and economic problems through a program of “dynamic expansion” (Gunn, 1871). As part of his expansionist aims, Mussolini organized the conquest of Abyssinia in 1935-36, and in cooperation with the German Chancellor Adolf Hitler, sent troops and equipment to Francisco Franco in Spain between 1936-39. Then Mussolini ordered Italian soldiers to occupy Albania in 1939. These aggressive moves caused unfriendly relations between Italy and the Western democracies, and helped to create a bond between Mussolini and Hitler.

A ten year military pact was signed on 22 May, 1939, by Italian Foreign Minister, Count Galeazzo Ciano, and German Foreign Minister, Joachim von Ribbentrop. This agreement technically obliged Italy to fight alongside Germany in the event of war, even of the latter’s making, but from its inception, the Rome-Berlin alliance was an uneasy one. Sharp disagreements occurred on several occasions. One of these disagreements involved the refusal of German officials to honour a June agreement to evacuate ethnic Germans from the Italian South Tyrol. A second source of friction stemmed from the failure of Germany to furnish Italy with as much coal as the Italians felt they needed. A third dispute sprang from Italy’s reluctance to attempt to elude a British blockade in order to supply Germany with important raw materials. A fourth contention centered on Italy’s thriving trade with Britain and France, including the sale of Italian war materials to these countries (Shirer, 1960).

The sale of war materials to Britain and France demonstrates that Mussolini was not then contemplating war against them. Quite the contrary, in January 1940, he expressed his hope for a German defeat, and instructed Count Ciano to secretly inform Belgium and Holland that Germany was about to attack them. Ciano conveyed the warning to the Belgian Ambassador in Rome on 2 January, and wrote in his diary that: “I inform the Belgian ambassador of the possibility of a German attack on the neutral countries” (Gibson, 1946), p. 191. According to Baron Ernest von Weizaecker, of the German Foreign Office, the Germans in-

tercepted two coded telegrams from the ambassador to Brussels containing the Italian warning and decoded them (Documents on German Foreign Policy, 1940).

A major source of conflict between the two Axis Powers at the time resulted from Germany’s pro-Soviet policy. Anti-German demonstrations in Italy followed an announcement by Hitler condoning Russia’s unprovoked attack on a helpless Finland. Mussolini wrote to Hitler on January 3rd, that: “... one further step in your relations with Moscow would have catastrophic repercussions in Italy...” To make matters worse, Italy continued to sell war materials to England and France, and this activity infuriated Hitler.

Then on 1 March, Britain began blockading German coal shipments by sea via Rotterdam to Italy. This was a heavy blow to the Italian economy and caused Mussolini to move closer to Hitler (Shirer, 1960). At the outbreak of World War II, Italy adopted a policy of non-belligerence. But the rapid incursion of German troops through Holland, Belgium and France, followed by the British evacuation of Dunkirk, threatened to end the war with a great victory for Germany. On 10 June, 1940, fear of being left out of the glory and of not receiving an adequate share of the spoils, caused Mussolini to honor his alliance with Hitler, by declaring war against France and Great Britain (Klibansky, 1942-43).

Italian Americans Between the Wars

Several scholars have studied the social and economic conditions of Italian Americans between World War I and World War II, and the appeal of Italian fascism for this group. Marc Fried (1973) cites evidence that by the 1920s most Italian Americans held jobs which were monotonous, routine, dispensable and interchangeable. Consequently, they suffered from low self-esteem. Vicent Lombardi (1980) wrote an especially poignant article which synthesizes some of the more important points of previous studies. Lombardi concluded that: “With their low self-esteem and sense of political powerlessness, coupled with a nostalgic nationalism... Il Duce’s alluring capacity to ‘get things done’ aroused a vicarious sense of power and respect (p. 145). Humbert S. Nelli (1983) asserts that middle-class Italian Americans and members of the working class both heartily endorsed
Mussolini. But research by Vincent Lombardi strongly suggests that Italian fascism was especially appealing to the Italian American lower-middle class, which "formed the backbone of the fascist organizations" (Lombardi, 1980, p. 152). Research by Patrick Gallo (1974) demonstrates that between World War I and World War II there was widespread discrimination against Italian Americans. Their inability to speak the English language well, combined with their lack of skills and poor education, led to prejudice and stereotypes, which were barriers to social advancement. The Mafia image, promoted by motion pictures and novels which portrayed unsavory characters with Italian surnames, was a special problem. "Dago," "Wop," "Guinea," and "Greasy Italian," were common ethnic slurs applied to Americans of Italian heritage during the 1930s. Thus, Italian Americans suffered from a low self-regard, which was "initiated and substantiated by the broader society" (p. 195). Andrew Rolle (1980) established that:

It was difficult for immigrants to counter stereotypes against them, for these were based upon the unconscious needs of their accusers. Intolerance and prejudice provided a means by which WASPs . . . could project internal angers onto foreigners . . . By depreciating helpless newcomers, ghettos were perpetuated, forcing the exclusion of tenement dwellers from better neighborhoods and jobs. (p. 57)

Mussolini was shrewd enough to realize that he could exploit the low self-regard of Italian Americans for his own ends. He initiated a special press office designed to spread propaganda to journalists, politicians, clubs, and workers of Italian lineage in America, and solicited these groups for money, moral support, and allegiance. An article in Popolo d'Italiam read: "The army of our emigrants abroad is an unmeasurable force, if in spite of the necessity that makes it an exile from its fatherland, it can still keep us in communion of spirit" (Bolitho, 1926, p. 72). The Fascist message stressed the importance of a sense of belongingness and shared values for all people of Italian blood. In order to profit from the low self-regard of some Italian Americans, Il Duce offered them the myth of the superiority of Italian culture.

Membership in American ghetto fasci increased rapidly under an umbrella organization known as the Lictor Federation. Years of living in the ghetto caused some working class Italians to become conservative, self-interested, ethnocentric, and prone to authoritarian solutions. "In 1937 there were 100,000 blackshirts in the United States with another 100,000 sympathizers participating in rallies and meetings across the country" (Lombardi, 1980, p.148). This was only 5% of the Italian American community. Most Italian Americans were uninterested in politics (Di Nolfo, 1977) and viewed the fascist movement "with indifference" (Gambino, 1975, p. 320).

Many of them were actually embarrassed by Mussolini's brand politics (Rolle, 1968). Italian American support for Mussolini and fascism began to fade after the signing of the Rome-Berlin alliance. With the advent of World War II, all outward manifestations of Italian American Fascism evaporated. Italy's entry into the war was a consciousness-raising experience for many Italian Americans. No longer could their self-regard be enhanced by identifying with a regime which was despised and denigrated by the society in which they lived, and depended upon for their survival and well-being.

Italy Enters the War

The courage and ability of Italian soldiers were well demonstrated in World War I. But in 1940, most Italians did not have the will to fight against their former allies. Ciano wrote in his diary on the day which Italy entered the conflict that: "The news of war . . . does not arouse much enthusiasm. I am sad, very sad . . . . May God help Italy!" (Gibson, 1946, p. 264). How Italy floundered! On 18 June, after a week of "fighting," thirty-two Italian divisions had not even budged six French divisions on the Alpine front, even though farther south along the Riviera, German troops sweeping down the Rhone Valley threatened to assault the French there (Shirer, 1960). On 21 June, Ciano noted in his diary that the Italian soldiers " . . . halted in front of the first French fortifications which put up some opposition" (Gibson, 1946, p. 267).

Mussolini ordered Italian troops in Africa to attack British Somaliland and Egypt. In August, they occupied Somaliland in a virtually unop-
posed campaign. In October 1940, Mussolini ordered an attack on Greece. It ended in humiliating failure, and this obliged German troops to come to the rescue with a full-scale Balkan offensive. This action delayed the German invasion of Russia by a vital six weeks (Deakin, 1962). Then in January 1941, two British divisions routed ten Italian divisions on the Egyptian frontier. By March, Eritrea, Somalia and Abyssinia had fallen to the British. In 1943, Italy was militarily and politically in a bad way. An Italian expeditionary force in the Soviet Union was suffering grievously, Rome's political freedom had been surrendered to Berlin, and the allies were poised to invade Italy.

The landing of the allies in Sicily on 10 July, 1943, was a consciousness-raising experience for most Italians, and the final blow for Mussolini. No longer could the self-regard of Italians be enhanced by supporting a regime which seemed doomed to failure, and which was about to heap humiliation and disgrace upon them. Mussolini was deposed by the Fascist Grand Council, and a new government was formed under Marshall Pietro Badoglio. Badoglio declared war on Germany on 13 October, 1943 (Deakin, 1962). Mussolini escaped to north Italy where he established a puppet government under the protection of German troops. In the spring of 1945, the German forces in northern Italy collapsed. With his mistress, Clara Petacci, and a few followers, a gaunt, desolate Mussolini fled north toward the Italian border. The Italian underground discovered them at Lake Como, and shot Mussolini and Petacci on 28 April, 1945. Their bodies were taken to Milan, and hung up by the heels in front of a garage.

The Italian people paid a heavy price for their involvement in World War II. They suffered almost two hundred thousand military casualties, and between 40,000 and 100,000 civilian dead. The war cost Italy about 50 billion dollars (Dupuy & Dupuy, 1977). Italian Americans also suffered. Many Americans labelled anyone with an Italian surname as a sympathizer for Mussolini and fascism. Italian Americans were often the victims of ridicule, scorn, and even violence. In addition, on 11 December, 1941, 1,600 Italians and Italian Americans living in America were taken into custody by the Federal Bureau of Investigation, and 140 of them were incarcerated in federal concentration camps, such as the one at Seagoville, Texas.4

The Italian War Against Germany

In October 1943, the Italian will to fight was rekindled, and men and women in Italy struggled in cooperation with the Allied forces to liberate their homeland from Germany. Three hundred thousand Americans of Italian lineage served in the United States armed services in World War II. Thirteen of them are known to have received the congressional Medal of Honor, and ten of them the Navy Cross. Four Italian Americans reached the rank of brigadier general.5 While the Allied armies battled their way toward Rome, Italian partisans carried out resistance operations against the Germans.

During the months of October and November 1942, Partisans organized a coalition of anti-fascist parties known as the Comitato di fronte nazionale (National Front Committee), in Turin. The three largest components of this coalition were the Christian Democratic Party. The Christian Democrats were a Christian-based party formed out of various Catholic-oriented groups. The National Front Committee joined with other smaller parties (Liberal, Action, Republican, and Labor Democracy) to form the Committee of National Liberation (CLN) in Rome on September 9, 1943. The CLN became the nucleus of the resistance movement against the German occupation of Italy. The number of active Partisans in northern Italy is estimated to have been between 50,000 and 300,000 (Parish, 1978).

By March 1944, the resistance movement was a viable combative force. Patriots continually harassed the Nazi-Fascist troops and many of them were killed. Workers in northern Italy supported the Partisans by holding general strikes. Despite heavy snows, Italian patriots sabotaged enemy communications during the winter of 1944-45. By the Spring, Partisans were playing an increasingly important role in conducting military operations against the German troops stationed in northern Italy. Italian campaigns were mostly of the guerilla type, but there were also some field units in action. The US Fifth Army under the command of General Lucian Truscott was composed of a number of Italian units, and the British Eighth Army contained large numbers of Italian soldiers.

On 27 April, a Fifth Army task force entered Genoa, Italy's largest port. The Italian patriots rose up all across north western Italy and seized control of the Regions of Lombardy, Piedmont and Liguria. This swift, violent uprising sur-
prised the Germans and saved valuable installations from their "scorched earth" plans (Warren, 1945). Allied troops entered Savonona and Turin on 1 May. On the following day, hostilities in Italy came to an end when the German Commander-in-Chief of the southwest army group, Colonel Heinrich von Vietinghoff-Scheel, signed an instrument of unconditional surrender at Caserta (Ame, 1954).

On 6 June, 1945, General Mark W. Clark, allied Commander in Italy, praised the work of Italian Partisans. He said that thousands of patriots operated in the mountains in cooperation with the Allied forces. These people, he said, were well trained and well organized and in constant radio communication with the Allied headquarters. General Clark estimated that the Partisans were responsible for the liberation of 200 cities in northern Italy. "I can assure you that they wrought havoc against the Germans," General Clark said (Clark To Return, 1945, p. 7). Approximately 36,000 Partisans lost their lives as a direct result of the war, and German soldiers killed about 10,000 Italian civilians in acts of reprisal.

Conclusion

The attraction and subsequent repulsion of Italian fascism and Benito Mussolini, for some Italians and Italian Americans, was directly associated with the individual needs of these people for self-regard. Benito Mussolini's chief supporters both in Italy and America came from the ranks of the lower middle-class. Prevailing social and economic conditions in both countries caused many people in the lower middle-class to feel insecure, and to suffer from low self-esteem. By appealing to "national glory" and to the "superiority" of Italian culture, Mussolini was able to secure the allegiance of large numbers of them, including many of the working class. He enabled them to enhance their own self-image through fantasy, denial of consciously intolerable realities, and the idealization of their leader.

The advent of World War II was a consciousness-raising experience for many Italian Americans, as was the landing of the Allies in Sicily for most Italians. The majority of Italians did not have the will to fight against their former World War I allies. After 10 July, 1943, they felt betrayed by Mussolini, and in the end they turned against him and his regime with a terrible vengeance.

Reviewed by Col J. P. Buckley, OBE, ED, (Ret)

The late Colonel E. G. Keogh, former editor of the Australian Army Journal, forecast in 1958 that "Retreat from Kokoda" would in due course rank as a military classic. Twenty-five years later it could be said that Keogh's forecast has been proved correct.

Paul spent over three years researching and investigating his subject before commencing to write his brilliant narrative, which will remain as one of the great stories of the war in the Pacific.

Like "Recollections of a Regimental Medical Officer", by H. D. Steward, it gives an excellent, but sad, pen picture of the ghastly trials, privations and almost unbearable misery of the gallant defenders on the Kokoda Trail. Tropical diseases, almost impenetrable jungle, nightmare climate, and near starvation (at times) were just as much the enemy as the Japanese invaders.

MacArthur's Headquarters knew little if anything about the shocking conditions in the forward area, hence the direction to prepare the Owen Stanleys for demolition!! At the same time General Blamey was under very great pressure from MacArthur and the Prime Minister, which perhaps explains his undeserved comments to the 21st Brigade at Koitaki when he told them they were defeated by inferior troops and inferior numbers. This was one of the very few lapses by the C-in-C during his outstanding service in two World Wars.

Paul makes it clear that he believes that the dedication and performance of the 21st Brigade played a vital role in the defence of Port
Moresby. Like H. D. Steward, he believes that Brigadier A. W. Potts was made the 'scapegoat' when his advance was aborted by the absence of vital supplies which had been promised. Many people have since wondered why the blame for the blunder of the missing supplies has remained a mystery.

Not only has Paul given a pen picture of the dreadful experiences of the Australians, but his painstaking and dedicated research has enabled him to give a similar description of experiences of the Japanese invaders. We must not forget, either, the gallant native porters — appropriately named the "fuzzy wuzzy angels". Their exploits are well documented in this story.

Raymond Paul has made a substantial contribution to Australian history by writing this excellent story about the unfortunate AIF soldier fighting in the jungles of New Guinea. The courage, dedication and stamina of those men in the face of overwhelming odds is now implanted in history.

Hopefully, this excellent book will be studied by the Regular and Reserve Army. It should also be of great interest to the general reader.


Reviewed by Andrè Kuczewski, McGill University, Montreal, Canada.

"A good honest and painful sermon."
Samuel Pepys

"Being entirely honest with oneself is a good exercise."
Sigmund Freud

A radical aberration is the initial impression which comes to mind when reading the opening introductory paragraphs of this book. But it is clearly an anomaly of a different and more rewarding kind. In marked contrast to the tidal wave of narcissistic and self-congratulatory memoirs copiously churned out by public officials to praise, defend or justify their role in government decision making, *Why Vietnam?* jettisons this general, if not traditional, rule of thumb approach as it forcefully directs a torrential storm of criticism against America’s longest and most unpopular war.

The overwhelming credibility of this book rests with the author who, as a former director of an OSS mission to Indochina in the 1940s, provides a revealing eyewitness account which highlights the seedtime of the United States Vietnam quagmire. Patti sees his study as "first-hand account of our earliest presence in Indochina" which "provides at least a partial answer as to why we were there and what far-reaching decisions in the mid-1940s brought us to forget the sentiments so nobly expressed in the Atlantic Charter — the right of all people to choose the form of government under which they will live and to see sovereign rights and self-government restored to those who have been forcibly deprived of them." (p. xvii)

There is a pervading element of fundamental irony and paradox which underscores the central message of this analysis. Shortly after Washington declared an official state of war with the Rome-Berlin-Tokyo Axis in the days immediately following Pearl Harbor, American diplomatic and military representatives gravitated toward and eventually cemented intimately cordial ties with Ho Chi Minh’s Vietnamese liberation movement in a common joint struggle to crush Japanese power in Asia. Patti, who encountered Ho and his lieutenants on several occasions during the Second World War to map a co-ordinated strategy against Tokyo’s war lords, candidly reminiscences about what he felt at the time by describing his former colleague-in-arms as a sincere, pragmatic and eloquent individual whose philosophy and general outlook on the world “made an indelible impression on me”.

He did not strike me as a starry-eyed revolutionary or a flaming radical, given to cliches, mouthing a party line, or bent on destroying without plans for rebuilding. This wisp of a man was intelligent, well-versed in the problems of his country, rational, and dedicated. I also felt he could be trusted as an ally against the Japanese. I saw that his ultimate goal was to attain American support for the cause of a free Vietnam and felt that desire presented no conflict with American policy. (p. 86)
Ho’s optimistic visions for the future were not to bear ripe fruit. The surrender of the Axis in 1945 brought with it not a new peaceful era but the stirrings of more sinister turmoil for Indochina. Incoming reports pointing to the United States’ open support for a return of French hegemony to that part of the globe rudely jolted Ho. How could it be, reasoned the Vietnamese leader, that the leading spokesman for the democratic world found itself enmeshed in an unjust French colonial cause?

Despite Washington’s continual denials that it was not actively lending political and economic assistance to the resumption of ruthless French territorial claims in Asia, the United States had in reality neither questioned the morality of the Quai d’Orsay’s sullied imperial adventurism nor criticized the French Government’s unwarranted manipulation of Vietnamese internal affairs. “Yet the State Department repeated its worn-out tune that it was not the policy of the United States to assist France in taking over by force, whatever that meant.” (p. 266)

By aiding and abetting the brutal return of the status quo ante in Indochina (amounting to $10 million worth of military hardware in 1950 and reaching the astronomical sum of $1 billion four years later, or 78% of the French war cost), the United States effectively betrayed the lofty ideals for which it had allegedly fought to preserve during World War II. Nowhere in the United States’ alliance with France, writes an embittered Patti, “does one find any allusion to American principles of democracy, freedom, independence, or self-determination”.

Instead there is a strong endorsement of continued colonialism administered by a European ally, financed by American dollars, and in the interest of an economic elite. The basic cause of the conflict, independence from foreign domination, was cavalierly brushed aside to accommodate “a friendly country” and to secure for ourselves a strategic enclave in Southeast Asia. It was indeed a strange image of American democracy we presented to subject peoples. (p. 389)

The most bizarre developments, however, were yet to come. When Ho eventually decided to challenge the continual intrusions of the French into Vietnam with armed guerrilla resistance, the United States caustically denounced him as a treacherous and subversive puppet working on behalf of the international communist movement. It was the logical culmination of an American foreign policy which was unfortunately centered on myopic (and predatory) self-interest, arrogance, and, not least, an abysmal ignorance whose weight is too appalling to contemplate. “The official record of our involvement in Indochina”, sadly concludes Patti, “is totally lacking in evidence that our government made any effort to probe into the true nature of Ho Chi Minh and his movement for independence.”

It perfunctorily dismissed the DRV [Democratic Republic of Vietnam] as “communist” and willingly joined colonial France in waging a ruthless war against it. At no time did the United States attempt to understand or win the friendship of the Vietnamese people but callously provided the wherewithal for the French government in Indochina to destroy the only grassroots effort to achieve independence. (p. 437, Emphasis added).

Why Vietnam? is the finest single volume analysis of the war’s origins which has been written to date. Patti has fashioned a riveting account of the forces that paralysed the United States when Uncle Sam deliberately misinterpreted the events taking place in Asia as a dastardly plot hatched by Moscow in her bid to enslave the world. Hopefully, the same tragic errors will not be duplicated but if the present is any indication of what might happen, then clearly the omens are particularly frightening. The lesson of Vietnam needs careful appraisal if the United States wishes to avoid a similar repetition. To this end, Patti has provided us with much grist for the intellectual mill.

THE LAST BASTION by Kristin Williamson Published by Lansdowne. Price $14.95

Reviewed by J. P. Buckley, OBE.

THE book deals with the period leading up to the recall of the A.I.F. in 1942 until the completion of the Buna-Gona campaign in December 1943. It covers what was the most critical period of Australian history. The story is
broadly the same as the television series *The Last Bastion* although there are some minor differences to meet the requirements of the screen play.

I found this an interesting book to read, particularly the details of the fighting which went on between Curtin, Roosevelt and Churchill about the deployment of the 7th Division and Corps Troops en route to the Far East.

At that time I was serving on H.Q. 1 Aust. Corps, we were in the *Strathalan* and were delayed in Colombo for five days whilst our destination was being decided. To have sent the A.I.F. into Burma at that time with no equipment to fight with would have been a terrible disaster. Perhaps Australia would also have been lost.

At this period Curtin was to achieve 'greatness' because of his determination to uphold Australian sovereignty. Prompted by Lieutenant General Sir Vernon Sturdee (Chief of the General Staff) — who threatened to resign if the A.I.F. was not returned to defend Australia — Curtin won the battle of the cables.

Some readers may feel that Kristin Williamson is too hard on Churchill because of his attitude towards Curtin and Australia. Churchill was a very great wartime leader who steered the United Kingdom through its gravest hour; but his attitude on some occasions towards our great wartime leader and Australia was not without justified criticism.

It was my very good fortune to know some of the Australian generals mentioned in the book, and indeed I served under them. I believe Kristin has described them fairly well, although I think the almost insubordinate relationship between MacArthur and Blamey is exaggerated. I don't think our Field Marshal would have been so difficult in his conversations with MacArthur. Maybe once or twice, but not so constantly. Although it's her first book, it is a well-documented story. She gives credit to David Horner for providing some of the important facts, and her writing has much in common with Horner's interesting narrative.

I must mention several omissions from the book and the television series:

- The first time the Japanese were defeated on land was at Milne Bay, the victor was Major General Cyril Clowes with Colonel F. O. Chilton (later Brigadier Sir Frederick Chilton) as his able General Staff Officer. This was a decisive battle: It should have been included in the book and the screen play.

- No mention is made of Lieutenant General Sir Edmund Herring, who replaced Rowell as G.O.C., New Guinea Force. Herring commanded the important battles during the Japanese retreat to Buna, Gona and Lae. The U.S. general, Eichelberger, was Herring's subordinate for much of the campaign. They had a close personal relationship and remained life-long friends. Sir Edmund Herring was the last Australian General to be knighted by the Curtin Government.

- Whilst the book details the fights between Churchill, Roosevelt and Curtin, which at times were most unpleasant and acrimonious I consider a short postscript could have explained that Curtin's visit to the U.K. in May 1944, was an outstanding success. He was cordially received by Churchill and treated with great respect. To those of us serving in London at the time, we thought that Churchill was trying to make amends for his earlier intransigence on Australian sovereignty. When Curtin died in July 1945, a Memorial Service was held for him in Westminster Abbey. It was attended by the elite of the U.K. Establishment. I was an usher at the Service and I was most impressed by the sincere affection and respect shown by the congregation for the memory of the great Australian Prime Minister — a worthy tribute in a far-off country.

Curtin was the outstanding fighter for Australian sovereignty. In the last months of his life he asked his friend and close adviser, Sir Frederick Shedden, to make sure that he (Curtin) was remembered for his strong and lengthy battles to obtain Australian sovereignty. Shedden told me this whilst he was writing his book at Victoria Barracks, Melbourne. Curtin's battles for sovereignty seem to be overlooked by historians.

- The film depicts Sir Vernon Sturdee as telling Billy Hughes that there was no plan for defending Australia because Singapore was impregnable. In fact, Sturdee always believed Singapore was not impregnable and stated so as early as 1930. It was General Sir Brudenell White who made the comment to Hughes.
Curtin did not broadcast by radio the appeal for help to the United States, it was included in an article in the Melbourne Herald on 26 December 1941.

Having stated these criticisms, let me return to my opinion that in the main both the book and the film capture the story of the life and times, and the tensions, which dominated Australian experiences in those vital war years.

Kristin Williamson has reached a high standard in her first contribution to Australian military history. Hopefully, she will continue in her research and writing.

A very important story about a very important and vital period in Australian history. Written with clarity and interest to the reader.


Reviewed by Sgt Eric Combe, Army Newspaper Unit

IN 1903 the Australian Light Horse Regiments were formed from the mounted rifle corps which had been raised by the colonies before Federation and Ms Winty Calder produced this well researched book late last year, the centennial year of the Victorian Mounted Rifles.

In 1863 the Victorian Colony's Defence Forces had been reorganized and, following withdrawal of British troops in 1870, largely consisted of unpaid or part-paid militia.

Colonel Price had returned to Victoria after 22 years with the British Army in India and was asked to raise a volunteer force of mounted infantry in 1885.

In 1886 the strength of the Mounted Rifles was set at 1000 volunteers, 46 of whom would become officers, with a staff of 20 permanent officers and sergeants-major.

Five years later the volunteer strength was increased by 200 but the effect of the country's severe financial depression and resulting cut in the defence grants saw the unit reduced by a third to 800 volunteers.

With troops being sent to the war in South Africa, the VMR's establishment was increased to 1100 in 1900 and another 50 in the following year.

HEROES and GENTLEMEN is not just about numbers and Ms Calder has presented this history in separate chapters covering the VMR's raising, development, equipment and training as well as its service in the Boer War.

In addition, she covers personalities involved with the regiment and the politics which affected it in its brief history.

Colonel Tom Price is covered extensively in this book which is as much his biography as it is a history of the VMR.

Ms Calder calls Colonel Price the "father" of the mounted rifle movement in Australia, with some justification.

Not only had be raised the VMR but also had been involved in the development of mounted infantry and rifles in all the colonies.

Tom Price was sent to England in 1858 and, after two unsuccessful attempts, was accepted for a cadetship at the East India Military College.

In July 1861 he became an ensign in the Madras Infantry, the beginning of 22 years' service in India.

His time in India included seven years with the British Judicial Department where he had charge of large districts with as many as 500 men under his command.

From mid-1873 until his retirement in 1883 he served in various staff and regimental postings then returned to Melbourne.

Victoria's defence forces at that time comprised a permanent force of about 400 and a militia of 4000 men. Rifle clubs were established throughout the colony to ensure that as many men as possible, proficient with the rifle, could be called upon to increase the army in time of war, and Tom Price was kept busy strengthening existing clubs and establishing new ones throughout the colony.

Lieutenant Colonel Frederick Sargood, the colony's Minister of Defence, offered Price the position of Secretary of Defence which he refused and instead assumed command of the rifle clubs, as well as resuming military duty to raise, organize and command the new volunteer regiment of mounted riflemen.

Until June 1902, Colonel Price commanded the VMR and welded it into an effective part of the colony's defence forces.
Through his efforts the regiment overcame the problems of a part-time, unpaid unit to establish itself as a credible fighting force, earning from Lord Roberts, the British commander in South Africa, the tribute that they were "like heroes on the battlefield, gentlemen everywhere".

The Colonel’s forthright manner endeared him to his men, as did his very direct speech but his outspoken manner made him enemies and led to the furore over his orders during the maritime strike in 1890.

Cabinet had called out the military in anticipation of violence resulting from clashes between strikers and strikebreakers and Price had been given command of one of the two columns of mixed troops assembled at Victoria Barracks, Melbourne.

Queen’s regulations gave clear instructions on the use of rifle fire against a mob but Colonel Price went beyond the official explanation and an inaccurate account of his briefing appeared in the local press causing a public outcry.

Anonymous allegations and sensational reports fuelled public criticism of the VMR’s commander and eventually led to a Court of Inquiry.

Although the Inquiry completely exonerated Colonel Price, the words "fire low and lay them out" stayed with him.

The appointment of General Hutton to command the Australian Military Forces in 1902 led to Colonel Price, Victoria’s acting Commandant, being transferred to command the Commonwealth forces in Queensland.

Shortly before his 62nd birthday, Colonel Price was transferred to the retired list, leaving the service without recognition or compensation from the Government, despite the fact that he had been injured on active service.

Glimpses of Colonel Tom, the supplement to Heroes and Gentlemen, provides an excellent insight into the personality of the man who did so much to establish the mounted rifle units.

It is a collection of addresses and letters by Colonel Price with explanations where necessary.

Ms Calder put five years of research into this history of one of the forerunners of the Light Horse and has included a wealth of information, including many chart maps and tables.

There are many old prints which give the reader a good view of the mounted riflemen and the conditions during the period prior to Federation.

It is a pity that this wealth of well presented information could not have been packaged better, considering the price.

For $25.00, I would have hoped for something a little better, considering that without the notes, appendices and index you are getting only 140 pages in a fairly large typeface.

The cover of the review copy developed a distinct curl after only two weeks and has so far resisted all attempts to return it to its original shape.

Presentation of the supplement does not justify its recommended price and I believe the book would have been better served with the supplement included within it as an appendix, justifying the $25 price.

Histories like Heroes and Gentlemen are important as they give us a better understanding of the development of our present day Army and of the personalities who helped to shape it.

I recommend Ms Calder’s work as good historical reading.


Reviewed by Jeffrey Grey, RMC.

IN marked contrast to the situation in the United States, little interest has been expressed here in the Vietnam War or our part in it. This may be explained in part by the closure of all relevant government documents under the ‘thirty year rule’. Equally, there appears to be a disinclination to examine these events which may simply be a product of indifference. It is a telling comment that the best, and virtually only, scholarly work on conscription and its impact on Australian policy is fifteen years old and was written by an American!

For this reason if for no other, the publication of McNeill’s book on the Australian Army Training Team in Vietnam is most welcome. The book took nine years to write and the author, in the tradition of Australian official historians, has had unrestricted access to
official source material. He has, in the other tradition of Australian official historians set by Bean, concentrated very much upon the experience of the individual soldier in battle and training, and this is both a strength and a weakness of the book.

The Training Team was a small enough unit for an historian to be able to deal exhaustively with individual experiences within a single volume. This McNeill has done, so much so that at times one wonders if one purpose of the volume was to mention everyone involved by name at least once. I have no particular argument with this approach so long as the author is able to rise above it when necessary to answer larger questions or consider larger problems. This McNeill has done less successfully. Reliance or semi-dependence upon the main force in a theatre has been a consideration for Australian forces in several of the wars we have fought. How much greater a problem it must have been for the Training Team, broken up into small detachments and scattered all over the country. At times, McNeill hints at the supply and logistic difficulties this caused. In other places he suggests that Team members could find themselves reliant upon both Americans and ARVN for their needs. But we do not find out which caused the greater difficulty, or how such problems were dealt with. The questions of command and control are likewise dealt with only indirectly. Some useful comparisons might have been drawn with the experiences of 1 NZATTV and 2 NZATTV, small forces in analogous positions. These are the sorts of broader issues which need to be addressed.

I am at something of a loss to understand why Captain Barry Petersen’s activity with the Montagnards should have thirty-five pages devoted to it when other more successful activities with the Nung, for example, are treated more cursorily. Readers with more detailed personal knowledge of events will doubtless think of other examples. My point is that if McNeill had an historiographical reason for placing the emphasis in this way, then he should explain it to his reader. His treatment of Badcoe is also open to criticism. His brief psychological profile (p 237) begs more questions than it answers. If he felt he could not be critical of a VC winner in print, and it is especially difficult to do so in an official publication, then it might have been better to say nothing rather than to erect a statement which cries out for further comment, and then walk away from it.

The above remarks should not be interpreted as dismissive. There is much of value in the book, and it is particularly good to see operational military history being published in this way. Far too much recent Australian military history concerns itself with anything but the soldier (or sailor or airman). The book is copiously illustrated, the diagrams on pp 318-21 being particularly good. There are far too many typographical errors. The Team is to be welcomed, and not only because it shows that authors and publishers are interested in opening up the subject of Australian involvement in Vietnam in a balanced and informative manner.
Defence Force Journal

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