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The Managing Editor
Defence Force Journal
Building C Room 4-25
Russell Offices
CANBERRA ACT 2600
(062) 65 2682 or if unanswered 65 2935.
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Australian soldiers in a British reconnaissance vehicle during Exercise North Star in West Germany.
THIS issue contains a wide variety of shorter articles, covering a diverse range of topics. The first of these, by Wing Commander Peter Rusbridge, *A Military View on the Future of the Australian Aircraft Industry*, should raise some interesting debate in the letters section.

Peter has been extremely busy lately, as well as writing this excellent article he has taken on the time-consuming task of reviewing a four volume series on the official history of the Royal Canadian Air Force. His first review appears on page 57 of this issue.

Many thanks Peter for a job well done.

Two other articles deal with the problems of aviation support. Another article by Chaplain Sabel gives us an outline on Character Guidance course in the Australian Army.

On the subject of Churches and the Defence Force, traditions dating back to 1913 are about to change.

A new body to be called the Religious Advisory Committee to the Services will soon be formed by senior members of the various churches. These members make up the Army’s Conference of Chaplains-General. The new Advisory Committee will provide a vital link between the governing bodies of the Churches and the Defence Force. It will include the Anglican Bishop to the Forces, the Roman Catholic Bishop to the Forces, the Convener of the Defence Force Chaplaincy Committee of the Uniting Church in Australia, the Convener of the Defence Force Chaplaincy Committee of the Presbyterian Church of Australia, the Chairman of the Federal United Churches Chaplaincy Board and the Rabbinical Representative of the Executive Council of Australian Jewry.

The Committee will be responsible for advice on the appointment of Principal Chaplains in the Services, as well as pastoral care and oversight of Chaplains and Service personnel and their families. Each Service will now have a Principal Chaplains Committee, of one star rank or equivalent status to provide for the administration and control of Chaplains.

The quality and quantity of articles received at this office over the last few months has been good. I would still like to see a few more. The response from the RAAF has been excellent and a good supply of articles from our Army contributors is at hand. However, I am desperately short of articles dealing with naval matters. I am endeavouring to keep a ‘well balanced’ journal. The success of this endeavour depends on the articles received. I need articles from all sections of the Defence Community. The *Defence Force Journal* is your journal and its success depends on you.

I again urge those ladies and gentlemen with overdue book reviews to complete them as soon as they possibly can. If you find you are unable to finish a review in reasonable time, send the book back to me. There are others who are only too willing to complete such a task. To be effective a book review must be current. The authors and publishers who send review copies expect this. So let’s be fair to them as well as our readers.

My thanks to the ladies of the Typing Pool in Building C at Russell who have undertaken some tough typing assignments over the last few months. Their assistance in sorting out a very complex distribution system was greatly appreciated. Without help such as this, publication of the *Defence Force Journal* would be impossible.
AUSTRALIA'S LITTORAL SURVEILLANCE

Dear Sir,

I am referring to the article by S/L G. J. Harvey, RAAF, which appeared in the Jan./Feb. 1981 issue of the DFJ.

Whilst the article is, in general, factual and presents the usual cautious approach of a serving officer, it contains a few inaccuracies and omissions, about which I would like to make a few comments.

I am surprised that the author, who quotes our Ref 4 (whose correct title is, by the way, 'International Symposium on Coastal and Fisheries Protection, Sydney, June 1978') should refer to the 'lack of tropical habitability' in the Nomad Searchmaster L aircraft. As noted in these Proceedings and elsewhere, this aircraft is fully air-conditioned. The great song and dance made about the AN/APS 504 in relation to the F27 MS applies equally well to the Searchmaster L — but one does not get this impression from this article.

It would also be interesting to know exactly what would be 'the major local industry participation' (if the system was misguided enough to purchase F27 MS aircraft), when compared with the actual production of Nomads.

The author gives as an example of what should be used in Australia the 25m U.S. Coastguard cutter. Yet in the Proceedings mentioned above a detailed description of a locally designed 26m patrol boat is given, optimised for local conditions. Would this be a typical example of the syndrome 'it can't be good if it is made in Australia'? (A series of 12 of these boats, made to our design is, by the way, now being completed in Singapore, with some six already launched.)

Finally, I am surprised by the continuing serious consideration of the OHR as a surveillance element. Anyone familiar with the display of these radars would hesitate to consider them as a serious detection device for detecting poaching fishing trawlers.

And (this has not been made clear by the author) there is a great difference between detection and identification. This opens, of course, a whole new field of discussion, but no matter what aids are used (land-based radars, transponders, satellites) there will always be need for aircraft to provide visual identification and surface vessels for final inspection and apprehension.

S. S. Schaetzel
Technical Director
Hawker de Havilland Australia Pty. Limited

It is Defence Force Journal policy to give the author of an article the right to reply to letters of a critical nature. In this case, however, I have been unable to contact Squadron Leader Harvey, who is no longer a serving member of the RAAF. I have therefore decided to publish Mr Schaetzel's letter without the author's reply. — Editor

MALAYSIAN ARMY

I am a New Zealand student attending the 1981 course at the Malaysian Armed Forces Staff College. One of the projects that we are required to complete during the course is the Commandant's Thesis, and I have been given the topic, "The Production, Review and Dissemination of Doctrine in the Malaysian Army".

My initial research has shown that the Malaysian Army has no system of its own, and furthermore, there is very little literature available here that is of any direct value.

My approach is going to be a comparison of the methods used by several other countries who I know have developed their own systems. I intend to do this by consulting the various agencies responsible for training to establish the methods used any by making an analysis of comment that appears in the form of articles in various professional journals.

To assist me with my research, could you please make available to me copies of any articles from the Defence Force Journal that deal with this subject in the Australian Armed Forces/Army.

Any help you may give will be gratefully accepted.

M. M. Fair
Major,
R.N.Z. Signals

I have been unable to find any articles dealing with this subject. Perhaps one of our readers can help. Major Fair's address is: C/o N.Z. High Commission, P.O. Box 2003, Kuala Lumpur, Malaysia. — Editor
A MILITARY VIEW ON THE FUTURE OF THE AUSTRALIAN AIRCRAFT INDUSTRY

By Wing Commander P. J. Rusbridge MSc, CEng, MRAeS, RAAF

INTRODUCTION

There is an air of quiet satisfaction present in current statements issued by Departmental circles connected with the aircraft industry in this country. It is caused mostly by prospects for the industry created by the NTF project but also by the forecast workload associated with the new trainer and other projected tasks. The buoyant state of Nomfads and the anticipated growth of offsets also contribute. It results in a quiet conviction that the industry in general is about to receive a much-needed lift in technology level and a boost in capacity.

Whether the industry shares this satisfaction and confidence is perhaps open to question. In the last resort, they are capable of answering for themselves and don’t need me as their spokesman. If they did choose to regard their prospects, with just a touch of cynicism and indifference, then I for one would not blame them. You see, although the current situation seems full of Eastern Promise, we have in fact reached this point several times before in the history of the aircraft industry, only to fritter away in months what we have taken years to achieve.

Of course, undue pessimism is as misplaced as undue optimism, and I have no wish to be thought of as a sort of ‘Job’s comforter’. Nevertheless, I have a feeling of “deja vu” when I reflect on the future of the industry. Hindsight and the study of the industry’s history show that there is an endemic problem for Australian industry that we face. In the past, we have found that the partial solutions to this endemic problem that we have adopted, result in almost complete breakdown of the industry. Ostrich-like, we continue to adopt the partial solution which is the easy part and ignore the hard part.

In this article I propose to describe what this endemic problem is. From my description, I hope to provide sufficient information to help the reader decide whether or not the problem has a practical solution. Finally, I will outline a
series of suggestions which could help to solve the problem. However, as you will see, I am no magician and there is no magic wand that I can wave which will suddenly provide us with a stable, productive and profitable aircraft industry which can fully support us in war.

THE PROBLEM

First, the problem. On the 21st of August 1925, the Director of Technical Services of the RAAF, Flight Lieutenant H.C. Harrison wrote a minute to the Chief of the Air Staff on the subject of the aircraft industry in which he stated:

'The total aircraft requirements in Australia are so limited that if a Government Factory is established for production work, it could naturally absorb all aircraft work to the starvation of private concerns or prevention of their establishment. This obliteration of the outside industry therefore leaves the Government Factory as the only producing agency in time of war.

It is certain that a single Government Factory on a peace time basis would not be able in time of war to produce sufficient machines or even to expand sufficiently to do so, and that the whole of the outside resources would have to be commandeered.'

The vicious circle outlined by Flight Lieutenant Harrison has not basically changed in the last 55 years. We are faced today with substantially the same problem that faced the early pioneers in the service. Let us look at what the problem means in today's terms.

The basic problem we face is the shrinkage in industry design and production workload which follows the design and production phase of an aircraft project. This shrinkage is caused by the relatively small quantities of equipment procured in the first place, the long service life of the equipment and the lack of an alternative market for aviation products.

As the workload shrinks, facilities and capital equipment become idle and skilled staff become theoretically redundant. In addition, skills, experience and expertise generated by the project, atrophy and waste away until capability virtually disappears. The difficulties GAF face in undertaking depot level maintenance of the Mirage and Canberra aircraft at the present time amply illustrates this situation.

There are two broad possible options for recovery; either:

- a. find alternative work for the industry; or
- b. subsidise the maintenance of idle capacity.

SUBSIDY

In the main the Government has in the past reacted to this choice by choosing the latter option. Through the mechanism of reserve capacity payments, the Government has sought to keep CAC, GAF and Hawker de Havilland in a theoretical state of readiness for expansion. In so doing they have allowed such esoteric bureaucratic formalae and procedures to develop that no one any longer seems able to explain with any degree of conviction why the payments are made and what their precise objectives are.

Why the Government should have allowed this choice of solution to predominate is equally difficult to answer. However, the historical record suggests that to seek out new work successfully is the characteristic and function of the entrepreneur. Whatever may have been the case in the distant past, the recent past has shown a conspicuous lack of such managerial types in the local industry. So long as the Federal Government is inclined to pay out good money for doing little, then the Industry by and large has been and still is happy to accept that situation.

Once this option of subsidy of the relatively idle capacity became a settled way of life for the industry, then all sorts of undesirable and unintended consequences soon began to become apparent. Chief of these is the continuing decline in technical manpower. Whatever the rationale for reserve capacity payments may be, one can clearly see that idle manpower is especially vulnerable in times of financial difficulty. It is much easier to dismiss a man and hope to re-engage him again in better times than it is to sell basic facilities and hope to recover them later.

Professional manpower — in the drawing office and in the design office — is reluctant to sit around doing nothing regardless of whether or not they are being well paid. Lack of job satisfaction will drive them away in the end.

In addition, there is no incentive in the payment of subsidies for update of facilities. Although formal mechanisms for update may exist they are not strong enough to secure all the necessary new equipment and facilities on their
own. Procurement procedures in the Department do not encourage the diversion of scarce resources from the purchase of prime capital equipment for the Services to other less direct needs. Any resources left over are grabbed for the day-to-day support of the Defence Force. Long term contingency needs take a back seat.

As a result, manpower and equipment — especially machine tools — soon become out of date. Only the facilities in the form of buildings survive relatively intact under this policy.

The final result of a subsidisation policy in my view is like a nearly consumed log in a burning fire. Although it looks substantial, it disappears at one thrust from the poker. In practice, work goes into a factory but takes a long time to come out. So we get the worst of both worlds — little capability at exorbitant cost.

**ALTERNATIVE WORK**

When we examine the other option for solving the problem — finding alternative work for the industry — then the picture doesn't look much brighter. There are a number of historical precedents which I would like to describe, from which some valuable lessons can be learnt.

The first example is offered primarily to emphasise the basic problem. The example concerns what happened when the aircraft industry was first put on any sort of firm footing in the years immediately preceding the World War II.

Following an initiative in 1935 from Mr Essington Lewis, the Chairman of BHP, the Government decided to encourage the formation of a consortium of BHP, Broken Hill Smelters and General Motors-Holden which would build military aircraft for the RAAF. Out of this consortium grew the infant CAC, led by Sir Lawrence Wackett.

Four years later, the company were within sight of completing their first production order for the Wirraway which totalled 40 aircraft and ten spare engines. When it became apparent to Wackett that in 10 months time CAC would have nothing to do, he sought a conference with the Government to find out what future plans for the industry there might be.

The conference, when finally arranged with the Government, was opened by Mr R. G. Casey with the words ‘Well, gentlemen, you went into the business with your eyes open. The Government has not made any plans to extend existing orders or place new orders. We cannot make any suggestions as to what you can do with your aircraft industry at this stage.’

The reader might be amused, or perhaps horrified, to learn that this exchange took place as far as I can judge in July 1939 some six weeks before the outbreak of war. I wonder whether in those circumstances the Government acknowledged that a perceived threat existed. Fortunately, Wackett realised that this situation could not possibly last. He went ahead and planned for an increase in production anyway. Not many days later, Mr Casey was on the phone to him asking how soon he could increase production from 2 to 3 aircraft a week. The next day he rang again to ask how soon Wackett could increase to 6 a week. In such a manner was early policy for the aircraft industry conducted.

The second example I would like to relate occurred in the period following the war. Although the war was over, the Government and the RAAF took care to reduce production demands reasonably and not abruptly. The Mustang production line was planned to continue at the rate of 2 aircraft per month for five years. However, this workload was insufficient to ensure that CAC remained a balanced and viable force in the industry.

Wackett had no pipedreams or false hopes of any large defence orders to come. He knew that alternative work was necessary to keep his company going. So he diversified into two basic streams.

First, he set up an engine overhaul section, thus assisting the postwar conversion to civil aviation operations. Secondly, he started making kettles, pressure cookers, baths, buses, steel roofing tiles and prefabricated houses. In this way, he managed to keep capacity alive until the Sabre programme.

All these activities were a direct consequence of his skill and drive as an entrepreneur with no encouragement from the Government.

In retrospect, Wackett concluded that his diversification programme was only partially satisfactory. You cannot keep a highly developed aircraft design team together by making pots and pans. However, in those days he had no option.

By the time that the Sabre production programme had been completed, Wackett was faced with exactly the same problem, now for
the third time. He solved it, at least partially, by engineering a few developmental extensions to the project. These included extended leading edges, modification to the armament installation and the engine modification made necessary by the so-called Darwin atmosphere. In addition, CAC designed and produced the Winjeel.

Despite these measures, one can sense that CAC were gradually losing ground. When the Mirage project came along, Wackett had retired, taking with him his crusading, buccaneering entrepreneurial spirit. As a consequence, when the Mirage production programme ended, CAC, and indeed the rest of the industry, slipped into the steep decline that we see before us today.

From these four historical examples, we can see that having developed the capability is not enough. When the new tactical fighter production programme is nearly complete I hope we will not be saying ‘This is where we came in; in July 1939, in 1946, in 1959 and 1971’.

THE SOLUTION

So far, I have described how the main problem facing the industry always has been and always will be finding follow-on work after the main production run is finished. I have also discussed the two main options — subsidies and alternative work — and identified the limitations of both. Now comes the hard part.

Before we consider the nub of the problem, I must emphasise that, because it has been with us more or less constantly for over three decades, the industry has been reduced to only a shadow of its former self. Thus, there is not only the problem of continuing workload but also that of rebuilding the industry up to a useful level again. So, any proposals for the future industry have to cover two areas of deficiency:

a. they have to indicate how the capability of the industry can be rebuilt; and
b. then they have to show how that capability can be maintained.

REBUILDING CAPABILITY

In seeking to rebuild the capability of the industry we must first set ourselves an objective. What sort of capability are we seeking to develop? Are we attempting to perform:

a. full design, development and manufacture;
b. no design or development but full manufacture;
c. partial manufacture and full assembly; or
d. only assembly?

There is also the question of what level of technology we are aiming for. In the complete aerospace range from satellite launchers to basic trainers there is much scope for choice. However, speculation on this aspect is too hypothetical to be of any real value. When our capability is so low, there is only one way to go — upwards, and the economic facts of life are likely to settle this issue for us. We will not in the foreseeable future be able to make the most sophisticated aviation products that we are likely to need. It is necessary only to start the process off, and an upper limit will automatically impose itself.

However, the crucial decisions of what range of skills we need at a given level of technology are vital in the initial stages. In their consideration we have also to take into account strategic factors. Let me illustrate again from the history of the industry the necessity to consider the strategic influence.

Wackett’s objective on the foundation of CAC seems to have been initially the full manufacture and full assembly of the NA33 prototype. As part of the licensing agreement, the North American company had delivered:

a. samples of every individual part of both airframe and engine in every stage of production;
b. a sample complete aircraft and engine;
c. components in varying stages sufficient to build five complete aircraft; and
d. forgings and castings and materials of all types sufficient for fifty aircraft.

Later on, as orders for the aircraft were increased, Wackett managed to arrange the production of the forgings and castings in this country, leaving only the strategic raw materials needing to be imported.

Meanwhile, and on the other hand, in 1939, the Government had decided to set up its own aircraft construction works. The particular project was for the local assembly and partial manufacture of the Bristol Beaufort bomber.
The intention was that the major components such as engines, propellers, gun turrets, undercarriages, tail wheel struts, instruments, steels and light alloy parts were to be manufactured in England and shipped to Australia. Thus, we can see that most of the 39,000 different parts would be made overseas. In practical terms, only local assembly would take place here.

Imagine the consternation that erupted in the Aircraft Production Commission when the following text of a cable was received at the end of July 1940:

‘From this date onwards Australia can rely on England for no further supplies of any aircraft materials of any kind’.

Fortunately for us, the British were able to relax this embargo sufficiently to allow shipment of parts for the manufacture of the first twenty Beauforts. After this, the Australian Aircraft Production Commission was on its own.

Its subsequent progress is neatly summarised by Sir John Storey:

‘Looking back from this point, I think I can say it was fortunate that we had not the slightest appreciation of the difficulties with which we would be confronted. Had we any conception of these difficulties I feel we should have recommended the abandonment of the project. As it was, we decided to follow a good old Australian policy and give it a go.’

From this historical example emerge two distinct philosophies. On the one hand there was Wackett’s policy of complete manufacture, and on the other, the Government’s policy of local assembly. In the particular type of war that Australia then faced there is no doubt that Wackett’s policy was the more correct. Now that we are on the threshold of the Mirage replacement, I wonder what our policy for the aircraft industry should be. More particularly, in what war economy environment will the industry have to operate? What sort of war are we preparing for and how will the industry best function during that war? This strategic issue must be settled before we can sensibly plan any further.

The issues that have to be considered are essentially those of choice. The choice seems to boil down to one involving two options, either:

a. a short hot war in which we fight with what we’ve got; or
b. a prolonged warm war in which replacement of the effects of higher rate of effort and action damage become inevitable.

There is no doubt in my mind that prolonged war constitutes the more severe case. If it is our duty to prepare more for what might happen rather than for what we think is most likely to happen, then this is the option we should plan for. Nevertheless, we need to take a conscious decision on this point if only because of the costs involved with the more severe option.

These will be considerable as I believe that any proposals for rebuilding aircraft industry capability to meet this option must be founded on the proposition that you can only learn how to design and manufacture aircraft, particularly high technology aircraft, by actually designing and manufacturing them. There is no other way.

That such a capability is necessary can be seen when we consider what our minimum requirements from industry would be in the event of a long, warm war. In confronting this issue, we have to accept that there is likely to be a gap in technology level between — on the one hand — in-service equipment needing support and — on the other hand — the capability of the local industry. Although we may be able to assemble our most advanced types of aircraft, we are unlikely to be able to fully fabricate them from raw materials or to design and develop them ab initio.

The most important type of task facing our local industry in a long warm war is likely, therefore, to be one of adapting advanced combat aircraft to the demands of the war. Adapting the aircraft means:

a. the local design, development and manufacture of modifications to parent equipment with the purpose of either —
   (1) enhancing performance in a current role; or
   (2) developing a new capability.
b. overcoming restrictions in supply by designing, developing and manufacturing substitutions for critical supply items; and
c. designing and implementing major repairs.

At the sort of technology level which we will be able to support in the foreseeable future, our minimum requirements necessary to provide
the sort of adaptive ability outlined would be the capability and capacity to:

a. design, develop, manufacture, assemble and test an airframe;

b. develop, manufacture and assemble an appropriate engine; and

c. develop and manufacture associated systems.

It would be fair comment to observe at this stage that these requirements imply a sizeable investment in R & D to give backing to all this highly technical work. The issue is not whether or not such investment is needed but rather where it should be placed. Should the industry accept responsibility for R & D backing or should the Government?

I can think of no major western country in which the R & D workload is not jointly shared between Government and industry. The bigger the industry, the greater its share. Such a subject is worthy of a presentation in itself. Indeed, the Defence Industry Committee has investigated this question at length within the last eighteen months. All I propose to do is highlight the need for R & D to back a regenerated aircraft industry and to observe that we currently have the means in Australia to provide the backing.

However the other, more obvious industry capabilities are lacking at the moment and cannot be developed overnight. Even in quite moderate aviation technology there will be a need to develop them slowly and incrementally. The incremental nature of such activities can once again be seen from the historical example shown by CAC.

The reader will remember how CAC began life with a manufacture and assembly project for the Wirraway advanced trainer. Wackett was able to give basic experience to the design team which gathered about him, by producing the design of a basic trainer — the Wackett trainer. Some 200 of this aircraft were eventually built.

Soon after Pearl Harbor, Wackett had the opportunity to put this design experience to work in earnest. By using the experience gained on the Wirraway, the Wackett trainer and the Beaufort programme, CAC were able to design the Boomerang. This was essentially a stop-gap fighter, conceived in the period of the war when not only had supplies from Britain been terminated but those from America looked shaky as well.

The incremental nature of the Boomerang design can be seen from the fact that only about half of the designed components were new. The rest had come from the Wirraway and the Beaufort. Work had started on production of this aircraft in February 1942. By August 42 the first aircraft had been delivered to the RAAF. A most remarkable achievement.

The lesson for us is the incremental nature by which capability grew and by which it must grow again. This implies a sustained programme in peacetime for the industry — a stable programme with long term planning, stability of funding, and a commitment in that funding to final production.

The long term planning must envisage a series of projects — say a basic trainer, followed by an advanced trainer, followed by perhaps a ground attack aircraft or a COIN aircraft or some such type, depending on the RAAF structure.

Funding, too, cannot hope to succeed if based on annual budget appropriations. There must be a degree of security for the encouragement of a developing design and production competence.

Realistically, there has to be acknowledgement that the design and development workload precludes any thought of local competition. In addition, there will be a need for strong central direction, particularly in managing the growing number of sub-contractors, whether here or overseas, which would be involved. These requirements suggest to me that a legally distinct consortium will be necessary, conforming no doubt to the Government's policy for the rationalisation of the aircraft industry, but existing as a separate entity to which the big three (GAF, CAC, HDH) contribute the necessary resources and in which they are free from the constraints of DAS contracting procedures.

By such means, I suggest, could the Government initiate a recovery of the aircraft industry. However, we must remember that all these plans are suggested provided only that the strategic requirement is demonstrated for an industry with a self-sustaining capability.

maintaining the capability

Now we must consider the thorny problem of maintaining that capability. This, the reader will recall, is the most important issue. Failure
to solve the problem has threatened the collapse of the industry on four previous occasions.

In considering how to tackle this issue we have to be clear what it is that we are trying to keep alive. This seems to resolve itself to capability in two categories:

a. in technical services, thus perpetuating the industry's ability to design and develop, and test aircraft; and
b. in production engineering so that we sustain the capability to manufacture and assemble aircraft.

The answer to both these needs is most probably twofold. I suspect that the growth of a market for our products in SE Asia and greater Australasia will form the first part of the answer. The second part lies in the growth of offset production. Neither of these is likely to be fully effective on its own.

Taking the growth of the regional market first, we have seen in nascent terms how willing neighbouring countries are to buy relatively sophisticated products from other than Europe, the USA or the Communist bloc. We have sold the Nomad abroad and sales are increasing. The Kiwis have sold the Airtrainer to the Thais. Regardless of the technical or commercial success of these projects, the willingness seems to be there to buy from us.

Moreover, regional economic trends seem to be such that there is reasonable likelihood that this potential market will grow. It is something that the Government should consider capitalising on. What we need in these circumstances is a genuine entrepreneur. I wonder whether Sir Lawrence Wackett would agree that opportunities exist in this direction.

Given reasonable luck and a Commonwealth administration in its broadest sense which is prepared to back the industry, then production of our locally designed products could be extended to fill new orders. In this way, production capability would be sustained, at least in part.

When we consider how technical services could be enhanced and sustained then we can reasonably expect some local customer requirements to generate additional design work. Having sold the product, the consortium could then expect to provide follow-on services in the form of modification design, installation design for new weapons and so on.

A word of caution at this point. When I suggested Commonwealth administration backing in its broadest sense I include the RAAF as well. It is not inconceivable that a Staff Requirement for a local aircraft project might include a requirement that virtually precluded the attractiveness of the project to overseas customers. Further, it might also transpire that this clash of requirements was not solvable at reasonable or acceptable cost to the overall project. In these circumstances, the possibility for the need to compromise might exist. Compromise is something I believe that historically the RAAF is not very good at. It could be something that we might have to learn.

When we turn to offset production, then we can consider it in two categories:

a. AIP for military and civil aircraft procured overseas; and
b. pure offset production.

AIP in its classic sense means Australian industry participation in the manufacture, assembly and testing of a pre-existing overseas product. We have to realise that this sort of programme has little benefit in sustaining design and development capability. Perhaps the avionics industry could benefit to a degree, but little else in the industrial sector. However, in sustaining production capability the benefits are self-evident. My only reservation is that with consortium products occupying much of the industry's workload, genuine AIP products are going to become even less frequent than they now are. Their benefits will be correspondingly more muted.

Offset production is altogether a more hopeful phenomenon. It is hopeful on two counts:
a. freedom from bureaucratic control; and
b. freedom for entrepreneurial activities.

Although it is difficult to be certain, I have the distinct impression that the origins of offset production lie very much in the initiative of some firms — notably H de H — in seeking out production orders. It is rather as though the Government came along afterwards and dreamed up a policy for covering their activities. There's nothing wrong with that in itself. Indeed some would argue that the proper role of government is regulation rather than initiation. However, an offset policy could be a bit of a double-edged sword. It will need control in the national interest.
This is because offset production is very much at the mercy of market forces. Some notable uncertainties likely to affect the future of such production arrangements are the energy crisis and strategic materials. It is not so very long ago that some joker put up a sign on the main road out of Seattle:

‘Will the last person leaving Seattle, please turn out the lights?’

Not even the mighty Boeing Company is immune from market forces. What we need to remember is that offsets are not purely the business of the individual firm’s commercial judgement. There is a proper context for offsets to be judged in relation to AIP and to prospects of overseas sales by the consortium. The whole has to balance to meet the primary objective which is — or should be — maintenance of production capability to sustain a long warm war.

SUMMARY AND CONCLUSION
I would like to conclude by summarising the following points:

a. Australia’s perennial aircraft industry problem is the decline in capability and capacity that follows small production runs;
b. this problem is well substantiated by numerous historical precedents;
c. its solution lies in:
   (1) rebuilding the industry incrementally through a series of design-and-produce projects; and
   (2) sustaining that rebuilt industry through a policy of regional overseas sales, offsets and AIP.

No doubt the reader might now be wondering whether we possess the will necessary to achieve this. I’d like to end, therefore, by repeating Sir John Storey’s words quoted earlier:

‘Looking back from this point, I think I can say it was fortunate that we had not the slightest appreciation of the difficulties with which we would be confronted. Had we any conception of these difficulties, I feel we should have recommended the abandonment of the project. As it was, we decided to follow a good old Australian policy and give it a go.’

I wonder whether we have the resolve to ‘give it a go’.

The author wishes to acknowledge the many helpful suggestions made by Air Commodore J. R. Anstee A.O., Director General Technical Plans of the RAAF in the preparation of this article. Nevertheless, the final result represents only the author’s views — not necessarily those of the RAAF.

AWARD: ISSUE No. 27 (MARCH/APRIL 1981)
The Board of Management has awarded the prize of $30 for the best original article in the March/April 1981 issue (No. 27) of the Defence Force Journal to Lieutenant Colonel N. A. Jans for his article The Officer Work Attitudes Study: Selected Findings.
AVIATION SUPPORT
FOR THE
AUSTRALIAN ARMY - SOME FACTS

By Col. W. J. Slocombe, OBE, AASC., Col.
R. R. Harding, R of O., Col. N. H. Harden,
AAAvn.

Introduction

We, past and present Directors of the
Australian Army Aviation Corps, were not
surprised to see the article by Major Clarsen,
‘Aviation Support for the Australian Army’ in
the March/April, 1980, edition of the Defence
Force Journal. Army Aviation is a contentious
subject and one which will prompt debate for
many years. However, such debate should be
based on facts and logical deductions from
those facts.

It is a pity that Major Clarsen did not observe
these fundamental principles. The explanation
could be that the article was produced to meet a
compulsory writing assignment when the
author was a student at the Australian Staff
College in 1977. It was subsequently published
in the Fort Queenscliff Papers of that year and
it is of interest that the editor of the publication
wrote, ‘there will be some readers who will
disagree with the accuracy or interpretation of
facts, the arguments presented and the
conclusions drawn in some or all of the papers’.
How perceptive that statement was, will
become evident as we progress.

We believe that it is necessary to set the
record straight. It is not our intention in this
article to justify Army Aviation — this has been
done many times before. We will limit our
comments to highlighting the errors in Major
Clarsen’s article.

The Inaccuracies

Some of the inaccuracies which appear are
fundamental to Major Clarsen’s thesis. Others
affect it only peripherally, if at all. To
laboriously correct all the latter would
excessively prolong this discussion and some
examples will suffice.

In the first paragraph of his Introduction the
author implies that the CGS/CAS Agreement
of 10 April, 1967 includes a limitation of 4,000
pounds all-up-weight on the aircraft that the
Army may operate. This is completely wrong.
Neither that Agreement as originally
promulgated and later amended, nor the 1966
Minister for Defence directive from which the
Agreement stems, mentions all-up-weight. The
term ‘light aircraft’ is used but is not defined.
As an aside it is the 1966 Minister for Defence
directive, not the CGS/CAS Agreement, which
specifies the roles of Army Aviation and neither
of these documents has been challenged by
either the Army or the RAAF.
Later in his discussion of the origins of Army Aviation the author states that the Army had the support of RAAF Auster aircraft manned by RAAF pilots and artillery observers throughout World War II. Auster Mark 3 aircraft were not introduced into the RAAF until October, 1944. Also the first post-World War II Army Aviation unit was 1st Army Aviation Company raised in 1957 and not the 16th Army Light Aircraft Squadron which was formed in December, 1960.

To continue along these lines would be boring to the reader. Sufce to say that we would caution against using any part of Major Clarsen's article as an authoritative reference for discussions on the subject of Army Aviation.

The Main Arguments

After traversing the origin of Army Aviation, defining and listing the types of battlefield aircraft required and concluding that there is considerable operational advantage in grouping them together in one Service the author decides in favour of the RAAF on the basis of his discussion of five factors. Because of the alleged importance of these factors we will examine the arguments put forward in their order of appearance.

Army Aviation Corps Manning

In this section and elsewhere, the term 'Aviation Specialist' is used. Implicit in that term is the premise that any Army aviator is something less of a soldier than the members of the other arms. Aviation is no more a specialist Corps than any other. Army Aviation is one element of the closely integrated force which is manoeuvred to fight the land battle. Is it the length of training time or technical qualification which prompts the use of the term 'specialist'? If so, these criteria are not valid as engineers and signalers, for example, many requiring degrees, take as long or longer from the date of entry into the Army to reach their respective operational units. The aviator is selected and trained, as are the members of all Corps, to be first a soldier with the characteristics, attributes and skills that the term implies.

The author links the introduction of the helicopter with an increase of training time for Army pilots. This is wrong. The first helicopter pilots who gained the Army Flying Badge in July 1961, began and completed their flying training at the same time as those who trained as Cessna 180 pilots. Since then both fixed-wing and rotary-wing training has progressively decreased from 46 to 38 weeks. Although about 2 weeks of additional operational flying training is now undertaken after the award of 'Wings' the 38 weeks now includes 4 weeks of instrument flying to meet the Army requirement for 24 hour operations.

Alleged or real manning problems have little relevance in determining which Service should be allocated certain types of equipment. Nobody would seriously suggest that the current manning problem in the RAN submarine force, or the RAAF maritime force, is sufficient justification to transfer these responsibilities to another Service. In any case Major Clarsen's allegation about the difficulties facing a small Corps are not valid. Aviation is certainly not as large as Infantry or Ordnance but its size is not unique. When the Corps was formed in 1968 its structure provided for 162 officers including one colonel. At the time the Armoured Corps had 171 officers including one colonel. It is also of interest to note that when the RAAF was formed in 1921 as a separate Service it had a total strength of 151 all ranks. It is correct that the Aviation Corps needed a significant number of junior officers in the late 1960's. So did the remainder of the Australian Army and, like them, Aviation obtained a number from the National Service programme. All those officers met the needs of the Army and they met it well. There is no evidence to sustain Major Clarsen's statement that the aviators 'practical understanding of the procedures and requirements of the arms which they were required to support' fell short of the need at the time, any more than such a statement could be levelled at National Service artillery, armoured or signals officers. Of course, one way of overcoming any difficulties associated with the size of the Aviation Corps is to give it more roles; but this is not suggested by Major Clarsen.

Major Clarsen perceives a problem in the use of short service commissioned officers with a relatively long and expensive training commitment. Giving Army Aviation to the RAAF will not solve that as now over half the RAAF aircrew are appointed as short service commissioned officers. On the other hand
Army Aviation currently has only three short service commissioned officer pilots. In any case the method of commissioning of an Army pilot has no observable effect on the average time he remains in the Service. For the record, the number of cadets specifically recruited for Aviation who began their training at the Officer Cadet School in June 1977 was 6 not 13.

Major Clarsen infers that Aviation would opt, if it could, for most of its pilots to be trained at an officer course similar to the six month course at OTU rather than the OCS Course. This is definitely not so. The Corps is not the arbiter of Army officer training standards but whatever these are, the Aviation Corps officer, as an Army officer, must meet the standard. It is foolish to suggest otherwise.

It is true that Army Aviation has discontinued attaching its newly graduated officers to combat arms. But the important point is why. The simple reason is that Aviation offers better opportunities for a young officer to see all the combat Arms functioning, at a higher level, than would be possible as a junior officer serving in only one of the Arms. The cessation of other Corps attachments cannot be used as evidence of ‘Aviation Specialists’. With the exception of Intelligence no Arm attaches its officers to another on a regular basis after graduation from officer training.

**Anti-Aircraft Weapons**

The long extract from Major General Dixon’s address makes one simple point which is not primarily concerned with anti-aircraft weapons. The point is that the workload of operating an anti-tank (armed) helicopter safely and effectively on the modern battlefield is too great to be undertaken by one man. A second person (an NCO) is required to assist. It does not follow that only the observer must have an intimate knowledge of Army procedures. As is the case for any Army fighting vehicle all the crew must possess this intimate knowledge. The pilot is still the commander who is responsible for the operation of his vehicle in all respects, and it cannot be otherwise. Using Major Clarsen’s argument does it follow that armoured vehicles should not belong to the Royal Australian Armoured Corps but rather to the Royal Australian Corps of Transport and that the tank gunners should come from Royal Australian Artillery. Perhaps the reason General Dixon did not draw the conclusion suggested by the author is that such a conclusion lacks logic.

**Sophistication Versus Simplicity**

Again the author draws an illogical conclusion from General Dixon’s writings. The reason for the existence of Army Aviation, is not, as the author implies, to operate simple aviation equipment. How then can it be argued that the introduction of more complex equipment moves Aviation away from its raison d’être? Is the introduction of Rapier moving the Artillery further away from the reasons for its existence? Is the introduction of complex sensor and surveillance devices moving the Infantry further away from the reasons for its existence? Is the introduction of modern technology moving the Army as a whole further away from the reasons for its existence?

Furthermore, it should be remembered that an increase in equipment complexity does not necessarily mean an increase in operating complexity. Often the reverse applies. It is simpler for the pilot, and others, to use a radio for air/ground communication than the old message bag and ground panels — two way conversation was somewhat difficult. As shown elsewhere the introduction of the helicopter, a more complicated aircraft than the Cessna 180, was followed by an eventual reduction in pilot training time — not an increase.

As an aside, it is an historical fact that when the RAAF was responsible for the roles now allotted to Army Aviation the effectiveness and quality of the equipment obtained to meet these roles increased very little. Regrettably this was a great cost to the Army in terms of the capability and efficiency of supporting aircraft and this really is the nub of the question, with the best will in the world a Service will tend to favour its own direct interests and indeed, its nationally high priority tasks, when allotting scarce resources. This situation is not unique as the Royal Navy can testify in relation to the state of the Fleet Air Arm in 1938.

**Cost Factor**

Practically all the points made under the heading of ‘Cost Factor’ show little knowledge of aviation. Let us take each point individually:

a. **Manpower.** Presumably manpower includes aircrew, groundcrew and the men for support facilities. Any knowledge of the RAAF maintenance philosophy and crewing
policy would show no saving of manpower in those air areas, as the manpower required is based largely on aircraft numbers and types, irrespective of who owns or flies them. Similarly cooks, clerks, aircraft refuellers, etc, are required on a numbers basis although there may be marginal (not 'considerable' as stated) savings in areas such as air traffic controllers and firemen.

b. Training. It is likewise difficult to see where savings could be made in training. Basic flying training is already conducted by the RAAF for all three Services and the amount of subsequent conversion-to-type/continuation flying training would be the same irrespective of the colour of the uniform worn by the pilot. In fact, Major Clarsen's proposal could be more expensive in the event. If the RAAF continued to follow its present policy all those pilots destined to fly Army support aircraft would be required first to graduate from No 2 Flying Training School on jet aircraft before converting to their Army Support type. This would entail some 150 flying hours per pilot at a cost of $1346 per hour additional to those flown in training by Army pilots, who now convert to type immediately after basic training at No 1 Flying Training School. At the present rate of about 16 Army pilots trained each year this would result in an annual increased cost of over $3 million. In a similar manner, wherever possible maintenance training is conducted by one Service and the costs would remain essentially the same.

c. Accommodation, Airfield Facilities and Running Costs. Capital and recurrent costs were considered by a joint Army/RAAF team in 1968 as part of the decision-making process for the establishment (or not) of Oakey. As the bulk of Army Aviation was based at Amberley at that time the costing comparison made was between remaining at Amberley or moving to Oakey. Paragraph 25 of the report produced by that team reads, 'the comparative costing ... reveals a difference in costs in the order of only $5,000, in favour of establishing the (Army Aviation) Centre at Oakey'. It should be noted that the $5,000 was in a total project cost in the order of $10 million. The author's lack of research is further illustrated in the comparison between the Army Aviation facilities at Lavarack Barracks, Townsville and those at RAAF Base Townsville (similarly that between Holsworthy and RAAF Base Richmond). A study similar to that made in 1968, was also made of RAAF Townsville v Lavarack with the result, from a financial viewpoint, overwhelmingly in favour of Lavarack; a result which would be valid irrespective of who owned the aircraft. In this particular case the author also argues against himself from the point of view of operational use of aircraft in support of 3TF. Does he imagine that 3TF users would drive to Garbutt to join an aircraft or that the aircraft would pick up at Lavarack? The latter is the prevailing situation.

Insularity

We agree completely with Major Clarsen's observation under this heading. However, the points made are more valid for the Army owning and operating those aircraft primarily involved in the land battle. The arguments also support the RAN operating the aircraft primarily involved in the sea battle and the RAAF operating those aircraft which fight the air battle.

The Proposal

A proposal based on inaccurate information, misunderstood principles and lack of logic has every chance of not achieving its aim and creating more problems than it purports to solve. This one is no exception. In addition this proposal rests heavily on pious hopes which have little chance of fulfilment.

Conclusion

Debate and discussion on defence matters, including Army Aviation, is healthy and should be encouraged. To be of any value though, it must be well informed. Unfortunately Major Clarsen's article, prizeworthy though it may be, falls far short in this fundamental requirement. We hope that the above facts have placed Major Clarsen's article in its true perspective.
By Group Captain F. R. Lonie, Royal Australian Air Force

THERE are many theories as to Imperial Japan's motivation for her World War II operations in South East Asia and the South-West Pacific. Some hold to the proposition that Japan, forced firstly by the United States to become a market for industrial goods (sewing machines or cannon-balls) by the "Black Fleet" under Perry, was then obliged by the same sorts of pressures to become itself an industrialised nation. Given this rapid and revolutionary change in traditional practices, subsequent denial of access to natural resources came as a potential disaster. A clear solution would involve military action aimed at securing direct Japanese control of at least, tin, rubber and oil. This meant occupation, firstly of French Indo-China as a support base, then of Malaya, Singapore and the Indonesian archipelago. This analysis might be disputed. The general proposition, however, seems to offer reasonable justification for Japanese operations up to the time of Milne Bay.

By mid-1942 most of the major objectives required to support this impressive strategy had been achieved. Malaya and Singapore had been occupied and Japanese forces dominated the Indonesian archipelago to the extent that advanced elements in Timor were closer to Australia than Sydney is to Melbourne. The next battle to be decided was that for the Solomons-New Guinea area.

Japanese sources confirm that the strategy for the invasion of New Guinea involved a two-pronged assault. The primary thrust was to be launched from Buna/Gona across the Owen Stanley range towards Port Moresby. The second supporting assault was to be from a secure base in the South-Eastern lowlands; a base in the Milne Bay area seemed ideal. From here an assault — probably amphibious — against Port Moresby could be co-ordinated with the assault across the mountains. Indeed, it is clear from the Japanese source quoted, that the Japanese were scarcely prepared, even if it should prove possible, to continue the mountain assault against Port Moresby without the support of a co-ordinated amphibious assault from a firm base in the South East. The Milne Bay operation was thus prepared as the classic "left hook". Its success was vital, in Japanese strategy, to the conquest of Port Moresby and the finalisation of Japanese control in New Guinea.

This study does not pretend to offer a detailed analysis of the Milne Bay operation; this task has already been undertaken more than adequately by the official histories. Rather, the article attempts, against the background of this particular operation, to present the author's views on what are considered to be some fundamental aspects relating to the provision of offensive air support to the ground force.

Operations in the Solomons

Milne Bay cannot be considered in isolation; not only was it to be a part of the two-pronged assault already discussed, but the Japanese were well aware that the recent American lodgement in
the Solomons could not be ignored. The Solomons were seen by the Japanese to be the easternmost "pin" of their archipelago strategy. Reoccupation of the Solomons was thus given first priority. The Americans were equally determined that Guadalcanal would not be re-taken. The massive concentration of forces — particularly naval forces — in the Solomons area had vital importance for both sides at Milne Bay. The concentration of American naval forces in the Solomons as first priority gave local naval superiority to the Japanese in eastern New Guinea. In tactical terms, the Imperial Japanese Navy dominated the surface of Milne Bay, particularly by night, when allied air was impotent. On the other hand, assignment of the majority of available Japanese aircraft to the Solomons reduced, to some extent, their ability to intervene in eastern New Guinea. In July 1942 two RAAF fighter squadrons (Nos 75 and 76) were co-located at Milne Bay primarily to assist with repulsing the Japanese invasion attempt. They were armed with the P-40 Kittyhawk. The aircraft was designed originally as an air superiority fighter (the American term was, of course, still "pursuit"). The versatility of this aircraft, however, aided by the very short combat radius involved, made it useful in many other roles, particularly in the role of offensive support for the ground force. The Australian Army, with a tough struggle coming up, was well supplied with its own tactical air. In short, the tactical situation was one in which the Japanese dominated the sea, while control of the air was fairly evenly balanced, at least in the early stages.

Objectives and Forces

The Japanese, riding the crest of a wave of military success with unshakeable optimism, operated under the following grand directive:

"at the dead of night quickly complete the landing in the enemy area and strike the white soldiers without reserve. Unitedly smash to pieces the enemy lines and take the aerodrome by storm."

Milne Force, under the command of Major General C. A. Clowes, had a somewhat less grandiloquent directive. They were to:

"in conjunction with allied air forces deny to the enemy the area occupied by Milne Force . . . and to protect and assist the allied air forces operating from Milne Bay."

To attain their objective, the Japanese brought to Milne Bay two Naval Landing Forces numbering about 1900 troops, of whom about 1600 were combat troops. After a steady build-up Milne Force, by the end of August 1942 comprised a ground force of some 8800, of whom about 7500 were Australian and 1300 American. The force included about 4500 infantry. The Japanese combat troops were thus outnumbered by about three to one. However, they had some significant advantages. They were so far undefeated in the field; their inferiority in ground forces was offset to some extent by their success in having landed at least two light tanks and above all, they owned the sea. Their air support would come mainly from Buna-Gona. They had the potential advantage of surprise for the Australian commander, while anticipating an ultimate thrust against the airfields, could never be confident about the initial landing point or points. Force disposition was undoubtedly his greatest concern.

Clowes was well aware that one of his two Brigades (7th) was untried. While the 18th were largely veterans, they had not yet fought in the jungle. However, he had the advantage of having had time to reconnoitre the ground (although he was virtually without maps) and the troops were somewhat surprised and certainly relieved by the co-location of their own "airborne artillery". (Shades of Greece!)

RAAF Activities

As a contemporary observer noted, this was, in many ways, a new experience for the RAAF. He observed that "for the first time Australian land forces (were to) receive adequate air support in action". More significantly, this would be "probably the first time Air Force squadrons (would have) fought alongside, instead of from behind, infantry and artillery". The two fighter squadrons were employed in all three of the classic roles which are still assigned to the Tactical Fighter Force. They carried out reconnaissance to the extent of their limited range; they provided air defence for Milne Force and perhaps most importantly, they provided offensive support for the ground force on demand. Armed with bombs, they also undertook maritime strike operations with some success.

Air defence operations commenced on 4th August with a strike by four zeros and a dive-bomber. They continued throughout the operation, although pressure from air attack eased somewhat as the American stranglehold on the Solomons tightened. A most effective example of
offensive support came with the wholesale destruction of Japanese barges on 26th August. About 15 were drawn up on the beach at the landing point, and all were destroyed by the Kittyhawks. Large quantities of fuel and other supplies were also destroyed. The official historian notes the tactical importance of these strikes, which prevented the Japanese from adopting the well-proven tactic of "bypassing the defending troops in amphibious loops along the coast." The strikes also undoubtedly greatly reduced the amphibious strength which could have been brought to bear against Port Moresby, if the battle had gone the other way.

In their air defence operations the fighter squadrons fulfilled the most demanding requirement of "keeping enemy air off the backs of the soldiers". In doing so, individual pilots scored some impressive kills. Furthermore, they struck against Japanese naval vessels with great gallantry, and scored some successes with bombs. Few would argue, however, that the major contribution of Nos 75 and 76 was the offensive support offered to the ground troops, firstly during the withdrawal to the airfields, and later in the offensive "pursuit" stage. The effectiveness of the two squadrons in impeding the advance of the Japanese through the jungle towards the airfields is perhaps best assessed by the Japanese themselves. Having noted the devastating effect of the destruction of the barges, the Japanese account goes on to observe:

"as the landing force began moving forward toward the RABi airfield, its main objective, enemy air strikes increased in intensity, making daylight movement impossible." 1

Southall's account notes that these gallant officers, highly proficient in flying and fighting, were scarcely qualified for the preliminary planning and detailed control of operations. With typical Australian versatility, they worked it out for themselves.

Southall describes the development:

"The operations room was a small tent . . . With them (the two squadron commanders) was their intelligence officer, Sqn Ldr X . . . Soon an American looked in, Commander Y . . . 'maybe I might know a few things about ships which you boys don't know' . . . and Captain Z AIF came over . . . to be the liaison . . . to interpret the mind of the soldier. Thus they began." 5

While Clowes commanded Milne Force, RAAF command and control procedures had steadily evolved over the previous year. The most recent development had been the establishment at Port Moresby of No. 9 Operational Group which initially, was tasked with operational control of all RAAF elements in Papua. 6 This Headquarters therefore exercised operational control of Nos. 75 and 76 squadrons throughout the Milne Bay operation. A senior officer of the Headquarters (Garing) consequently established himself at Milne Force Headquarters and acted thereafter as Clowes's air adviser. The Australians had, somewhat inadvertently, established an effective Joint Force Headquarters and a Joint Operations Centre.

Lessons of the Milne Bay Operation

Given the numerical superiority of the Australians and their American allies and the fact that they were (at least initially) in defence, it might be said that the outcome should never have been in doubt. This was MacArthur's view. 2 The picture, of course, was not nearly so simple. The Australians faced a confident, aggressive force, better jungle fighters than they, with their "tails up". They had not yet been defeated on land, and they had armoured support which they exploited skilfully.

The author identifies two factors which appear to have made the difference. Firstly, the Australian infantry, both AIF and militia, unfamiliar as they were with jungle fighting, fought superbly.
They were professionally prudent during the initial withdrawal towards the airfields and well-commanded to the extent that their dispositions in the defence of No. 3 field allowed such a concentration of fire that the enemy report notes that the final assault on the airfield perimeter melted in the face of "withering fire from the Australian defenders." Secondly, the soldiers on the ground had the inestimable advantage of having their own offensive air support on demand. The incessant low-level strafing attacks of the Kittyhawks not only made daylight movement by the Japanese impossible, it provided other advantages. For example, the fighters scoured the palm-tops with 0.5 fire, making it extremely difficult and hazardous for the Japanese to follow their usual practice of siting snipers in the tops of the palms.

Perhaps the most important factor in achieving final success was the co-location of the tactical fighters with the ground force. Some might argue that offensive support could have as effectively come from Port Moresby. This is not so. The additional flight times that would have been involved, leading to considerably shorter time on target and much greater turn-around times for tactical sorties would have lessened significantly the ability of the tactical fighters to maintain the constant, intense pressure which was a major factor in driving the Japanese back towards their evacuation point. Co-location will usually be a luxury; where it is available, however, it will bring heavy tactical and morale advantages.

In this regard, some have expressed doubt as to the overall wisdom of the decision to remove the fighters to Port Moresby when the assault force was about three miles from the airfield perimeter. It could be argued that the essential camaraderie which had been established in a situation in which aircrew and soldiers physically lived and fought side by side must have been eroded to some extent with the departure of the aircrew to what would have been seen as more secure locations. Of course, the aircraft were essential elements in the battle and should not have been, hazarded without good reason. The author wonders whether the possible loss of the machines might not have been a chance worth taking, in the interest of preserving the bond which had been forged in combat between soldier and airman, and which seemed so vital an element to ultimate success. Truscott, who elected to remain with his ground staff and the soldiers, obviously thought so.

The basic RAAF doctrine which holds that the direction of offensive aircraft should be centralised in RAAF hands to prevent undue dilution of the offensive capability, is essentially sound. Nevertheless, situations will arise in the future, as they have in the past, in which air offensive elements should sensibly be assigned to support the land battle, albeit under the auspices of a Joint Force Headquarters. Some areas of RAAF opinion, while acknowledging the doctrine, seem to have shied away to some extent from this proposition in recent years. If the operation at Milne Bay had not been conducted in this way, we would have lost. Perhaps Southall has the final word on the subject:

"here (at Milne Bay) there would not be two wars — one in the air and one on the ground — but one war." 5

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A HISTORY OF CHARACTER GUIDANCE IN THE AUSTRALIAN ARMY

By Chaplain E. T. Sabel

INTRODUCTION:

AUSTRALIAN Army Training Instructions lay down the following with regard to Character Guidance Courses:

"A character guidance course is an integral part of the syllabus at recruit training establishments, officer training establishments, the Army Apprentices School, and other units as approved by Headquarters Training Command.

The aim of the course is to give members an opportunity early in their training to:

a. assess the moral and spiritual values inherent in character development by:
   (1) encouraging them to discuss the values they already hold, and
   (2) examining these values in the light of Australia's social and religious heritage; and
b. to strengthen their ideals so that they will maintain a high standard of conduct at all times.

The period of time allotted to a character guidance course is determined by Army Office (DAT) in consultation with the Conference of Chaplains General and Headquarters Training Command, subject to the approval of the Conference of Chaplains training team, and the time-table determined in consultation with the commanding officer and the chaplains of the unit concerned.

A course report is to be submitted to Headquarters Training Command by the course supervisor, after consultation with the commanding officer. To assist in the evaluation of the course, all participating students are to complete a written questionnaire."

The year 1979 marked the 20th Anniversary of Character Guidance Courses. The occasion was suitably remembered at a Dinner that continued into the early hours of the morning, but it seemed appropriate to mark the occasion also by setting out the history of Character Guidance, with some comments on its significance. The assistance of Chaplain General J. A. Morgan, Chaplain D. C. Abbott and Chaplain J. R. Bedford is acknowledged with gratitude.

HISTORY OF CHARACTER GUIDANCE

The Beginnings: Obviously no history of anything can really go back to its beginnings, because everything comes from something else and the search for origins goes on ad infinitum. However for an understanding of Character Guidance in the Australian Army it is helpful to look at some of the people and events, near in time to its inception, that formed the soil out of which it grew.

Among chaplains there was a real pastoral concern for members of the Army, a concern for their total welfare. This was a concern against the background of World War II, the Korean War, and then the Malayan emergency; they were concerned, it has been said "that in giving their lives for their country, men should not lose eternal life". This concern (though
focused more on moral welfare) was also evident among a number of senior Army officers, and so there was a receptive climate for the ideas that were being discussed and would finally develop into the Character Guidance course.

Since 1950 there had been a programme of what were called CO's Hours. This was a session conducted by the chaplain that provided an opportunity for all ranks to join in discussions on moral issues. This did provide some opportunity to do something about the concern spoken of above, but it was limited in that there often were not enough chaplains available to conduct them for all units, particularly on a regular basis. Besides this, they were run non-denominationally, and therefore did not give opportunity for the kind of spiritual depth that chaplains wanted to provide. Most of all, the limited time did not really meet the need that was felt.

In 1952 in The Australian Army Journal, there appeared an article by Lieutenant-Colonel L. J. Loughran, entitled “The Source of Military Morale”. This article was reprinted extensively in army journals in other countries, and certainly had an influence in Australia — probably because it succeeded in putting into words the aspirations and ideas of many thinking men in the post-war Army. It began by quoting U.S. General J. Lawton Collins, “The true strength of any army lies in its moral character and the spirit of its soldiers. A man needs a sense of individual dignity and responsibility. He must know and believe in the ideals of his country and he must be willing to protect and perpetuate them”. (1)

Loughran went on to advocate Christian patriotism and Christian idealism as the means to sustain the morale of the Army, and suggested ways in which these might be fostered. “So important is this matter that there should be no question of vaguely wondering whether we can find time for it in our training syllabus. It should be accorded the priority it merits and, if necessary, our syllabus should be completely revised to ensure that it will succeed” (2). He proposed an educational programme with the aim “to codify and propagate our way of life”, (3) and concluded by saying, “The Army, perhaps, forms the largest secular block of idealism that our country has, since no man joins up in search of purely material prosperity. Is it not, then, logical that the Army should play a leading part in the war of ideas — that it should do its utmost to inspire all the creeds and classes which pass through its hands with a true national idealism?” (4)

In a time when many people saw the Australian “Christian” way of life as threatened by the communist ideology, this article was widely acclaimed. It was significant for the history of Character Guidance not only because it advocated the fostering of Christian ideals, but also because it quite specifically advocated that an educational programme be included in the regular training syllabus to achieve this. A little over seven years later this was to come about.

The Australian Army Chaplains Department was directed by a Conference of Chaplains General, all part-time Army, and therefore providing a link between the civilian churches and the Army. In a time when ecumenism was just beginning to be an important concept, this group of men had already learned to work together and to trust one another. This was significant for Character Guidance, because they were able to act as one when the opportunity arose. The five men represented the Church of England, Roman Catholic, Presbyterian, Methodist and United Churches groups; a Jewish Rabbi also attended their meetings. In September 1955, Chaplain J. A. Morgan became Chaplain General (Roman Catholic). (5) He brought with him an enthusiasm for the fostering of Christian ideals in the Army that had been further encouraged by an enquiry from his Archbishop.

Cardinal Gilroy had written to Archbishop Mannix, mentioning that he had heard about courses being conducted by the Royal Air Force in England and that he had been sent the programme for those courses. He asked whether these courses were being conducted in the Australian Military Forces. Archbishop Mannix (Roman Catholic Bishop to the Forces) passed the letter on to his senior chaplain in each of the services. Chaplain General Morgan was enthusiastic about the idea and quickly shared the suggestion with his fellow Chaplains General and interested senior officers. His keenness, also supported by Navy Senior Chaplains, was perhaps what was the final push needed to bring about the first moves to put into action ideas that had been developing and
growing in the minds of many over a period of time.

The Australian Army had not had the kind of courses run by the Royal Air Force, although there had been some work done in conducting weekend 'retreats' — a kind of spiritual refresher course — with the troops waiting to return home at the end of World War II, then with the British Commonwealth Occupation Force in Japan. However although little had been done, the need was apparent to many, and so on 27th October 1955, senior chaplains of Navy, Army and Air Force were brought together and asked whether there could not be some sort of course promoting Christian ideals that chaplains could be involved in. It is of interest to note that the official request came from senior officers of the services, not from the chaplains or the church. One of the senior servicemen who was a strong influence in this move was Vice-Admiral R. R. Dowling C.B., D.S.O. (later Sir Roy Dowling), First Naval Member and Chief of the Naval Staff, who not only gave strong encouragement but also offered the facilities of Flinders Naval Depot, Crib Pt, Victoria, for the first course.

Army and Navy chaplains were enthusiastic and decided to combine forces to run what in the British forces were called "Moral Leadership Courses". They adopted the same name and followed a similar programme to that of their British counterparts. The Air Force said that they were already conducting such a course, and elected to continue on their own. The first Moral Leadership courses were conducted at Flinders Naval Depot, in July 1956. They were combined Navy-Army courses, and held in three separate denominational groups with forty persons in each. This first venture was a resounding success, and they have continued to be highly successful ever since. (These courses are still run, under the name of Character Leadership courses).

With the success of the Moral Leadership course still fresh in his mind, Chaplain General Morgan found himself, early in 1957, travelling from Adelaide to Melbourne by train in the company of Colonel M. Austin, then Director of Infantry. The discussion got onto the subject of battalions going to Malaya, and the fact that the 3rd Battalion was to depart shortly. The Chaplain General made the suggestion that it would be a marvellous thing if the Moral Leadership course could be conducted in a battalion, so that 120 (3 groups of 40) personnel would participate. This would undoubtedly make a considerable impact on the whole unit. Colonel Austin thought that the idea was worth pursuing, but that it would probably have to be at the Jungle Training Centre at Canungra, where the 3rd Battalion was doing its final Battle Efficiency training.

Wasting no time, Chaplain General Morgan contacted his fellow Chaplains General, and then he and Chaplain General Riley (Church of England) visited Canungra to discuss the matter with the Commandant, Colonel F. P. Serong. If they expected a cool reception, it turned out to be just the opposite. Colonel Serong was not only interested, but told them that he had been wanting to have a course like that for years. He was not prepared to make available three groups of forty, but he was prepared to make available the whole battalion!

This was an unexpected and exciting prospect. By the time of the next meeting of the Conference of Chaplains General on 21st March 1957, it could be reported that, "agreement has been reached by DPS with DMT re special courses at 3 RAR. This matter now awaiting GOC E Comd concurrence and will be discussed with him by CsG in E Comd on 26 March". (6)

Events had moved rapidly, and without the Chaplains General intending it to happen, a new dimension had been given to the whole enterprise. From the proposed voluntary course, it had now become a course for all members of the unit. Most of it would be done in the three denominational groups, Church of England, Roman Catholic and Protestant Denominations; the Chaplains General agreed that in all groups the subject matter would be titled "The Maker’s Instructions" (7) and be based on the Ten Commandments.

Colonel Austin had now taken over as Commandant at Canungra, and continued the support for the venture. The course was held in June 1957, with two-hour sessions morning and night for five days. It was called a Moral Leadership course, but it was different in a number of ways from the Moral Leadership course first held at Flinders Naval Depot the previous year. It was different in that it was a compulsory course, it was much shorter in duration than the two weeks of the normal Moral Leadership course, there was an agreed
syllabus for the three denominational groups, and it was for Army personnel only, instead of Navy-Army. The course was a great success, and another was arranged for a new group in the next month (22-26 July).

At the meeting of the Conference of Chaplains General on 19th December 1957, it could be reported that four courses were scheduled for 1958. At the same meeting, it was decided that since these courses were quite different from the Navy-Army moral leadership courses, they should be called “Character Formation Courses”. At their meeting on 13th May 1958, it was agreed that the courses be called “Character Guidance Courses”. At the end of 1958, a further three courses were scheduled for 1959. The courses were conducted by Chaplains General — those who could make the time available — as well as by the Senior Chaplains of Northern Command, and other chaplains who were brought in to assist.

At the conclusion of the first Canungra course, during an evaluation session, a battle-hardened sergeant stood up and said, “Why weren’t these courses started years ago?” Comments like these undoubtedly encouraged all those involved to develop and to continue the courses, but there were other factors that were significant in the process, one of these being the publishing of a report that became known as “The Korean Document” — officially the “United Kingdom Advisory Panel Report” on the Korean War. (In it there was a chapter on ‘Factors Affecting Individual Resistance in Battle or after Capture’, which dealt with the problem of indoctrination of Prisoners of War, the battle for the minds and loyalties of men. The Australian Army, particularly the Directorate of Military Training, took the Korean Document seriously. It noted that a religious faith and true national idealism were of inestimable value in resisting indoctrination, and recommended that those who had this kind of faith and idealism should be encouraged and helped to strengthen it. Communism, with its apparent ability to win men’s hearts and minds, was seen as the great evil by many, and any means of opposing it was to be encouraged.

The climate therefore was right for the development and extension of a course such as the Character Guidance course, and when in 1958 Colonel J. K. Lynch, Commandant of the Jungle Training Centre at Canungra, proposed that these courses would be best held at the Recruit Training Centre when men first came into the Army, there was ready support. The proposal that Character Guidance courses be held at the Recruit Training Battalion at Kapooka NSW came to the Conference of Chaplains General at their meeting 10-11 December 1958. They fully supported the proposal and expressed their willingness to organise these courses (preferably on the basis of four courses per year, each to be of at least 16 hours duration) in consultation with the Directorate of Military Training.

The first course at Kapooka Recruit Training Battalion was held 4th-8th May 1959.

The First Course: This course at Kapooka was the first of the Character Guidance courses as they are now constituted. It marked a change from being a preparation for overseas service, to being a beginning-of-Army-service course aimed at examination, development and growth of values and ideals. It marked a change also in that it was no longer a kind of adjunct, fitted in wherever it could be fitted in, but a course written into the training syllabus as Lt Colonel Loughran had suggested seven years before. It was now a course that took up Colonel Loughran’s proposal of tackling the problem of inspiring in civilians coming into the Army a Christian patriotism and Christian idealism.

Making this course part of basic Army training was significant for another reason — one that is not so readily apparent 20 years later. It was at this time that men were in the process of establishing Australia’s first permanent Army. In considering what was needed for this Army, a kind of consensus had developed that priority should be given to greater mobility, better communications and good men. Of these, it was widely accepted that the most important requirement was for good men, and the Character Guidance course should be seen against this background. It was to be one means of reaching the goal of having “good men”.

It is perhaps worth including some of the details of the first course. It has been suggested (I am unable to verify this) that the course may have been viewed with some misgivings by the Battalion Commander (Lt Colonel S. W. Hosking) and his Major Training (Major T. R. K. Wright), but there is no doubt about the fact that they gave the project every possible sup-
Li Colonel Hosking addressed the recruits at the opening of the course, and had prepared for the occasion his definition of “character”, a definition that was often quoted later: “That man has character who knowing what is right, will stick to that no matter what the circumstances or what the consequences”. He remembered also for his valiant efforts to stop recruits coughing. It was the middle of winter, and in the living conditions that were there at the time, colds were rife, so that not even threatening to cancel the leave of those who coughed was entirely successful in stopping it! It did produce a large number of recruits who looked even more incongruous than usual by virtue of having handkerchiefs stuffed in their mouths.

There were four hundred and forty on the course, with fifteen chaplains who acted as lecturers and syndicate leaders. Chaplain General Morgan was the Course Supervisor, and spent a great deal of time in thorough briefing sessions for the chaplain group. It was a new experience for most of them, and so questions for syndicate discussion were also discussed thoroughly by the chaplain group. In later courses lecture notes of each chaplain were submitted to the Major Training for the production of training aids by his draftsmen.

At the end of the course, students were asked to do an evaluation, which required them to answer a questionnaire and then add their own comments. There were insufficient forms for the whole four hundred and forty, so some forms were used twice, with the second student using the back of an evaluation form another student had already filled in. An amusing story is told of one such evaluation form. The student who filled in the form first, obviously had an obsessive mind: in answer to the question of which three lectures he found most helpful, he said “the doctor’s talk on sex, the chaplain’s talk on sex, and other talk on sex”. Any subject that could be added — “more talk on sex”. Any subject that could be left out — “the talk on drink”. On the reverse side another student did his evaluation and added this comment, “I understand that this is the first course of this type to have taken place in the Army. I found it most helpful, and I am sure they should continue, if only to help the silly bastard who filled in the front of this form”.

At the end of the week chaplains were weary but excited and happy. It was apparent to all that the course was a success, and any doubts that people may have had about whether Character Guidance courses would continue at Kapooka were dispelled. Two Chaplains General (Morgan and Begbie) were present at the first course, and also for many courses in the first years.

Minutes of the meeting of the Conference of Chaplains General of 21st May 1959, record that Chaplain General Morgan reported on a most successful course and that the Commanding Officer at Kapooka was very satisfied. Chaplain General Begbie added valuable comments. It was agreed that Chaplain General Morgan arrange for the preparation of additional training aids.

Developments Since May 1959: With the Kapooka course established, the Chaplains General at their meeting 9th July 1959 prepared a submission to the Director of Personnel Services. Among other things, it included the proposal that Character Guidance courses be conducted at other point-of-entry training units, namely the Royal Military College at Dunrobin, the Officer Cadet School at Portsea, the Army Apprentices School at Balcombe, and the Women's Royal Australian Army Corps School at George's Heights. This was subsequently accepted, and from that time on Character Guidance courses have been part of the initial training syllabus for every one coming into the Army, with the exception of professional people who come into the Army professorially qualified.

Another of the proposals in the submission prepared at that meeting, was for the appointment of a mobile team of three chaplains to conduct Character Guidance courses. Particularly with the extension of Character Guidance to other training units, the Chaplains General realised that they simply could not cope with the responsibility of personally conducting all courses. They had already put a great deal of time and energy into this, bearing in mind that they had the rest of the work of the Chaplains Department to administer, as well as their responsibilities in their civilian churches.

When they met on 5th and 6th of April 1960 it could be reported that an amendment to establishments, dated 8th April 1960, would shortly be promulgated, and it would authorise the appointment of three Regular Army chaplains as a mobile team working under the direction of the Chaplains General.
It was agreed that the following chaplains should be recommended for appointment, D. C. Abbott (Church of England), F. Doolan (Roman Catholic) and J. R. Bedford (Protestant Denominations). Chaplain F. Doolan was later appointed Chairman/Secretary of the team for the first year. It was referred to initially as the Mobile Team, but was later officially called the Character Training Team. The first team commenced work on 1st July 1960. The establishment of the Character Training Team was to prove of inestimable value in course development and continuity, and in fact would seem to be the main reason why Character Guidance and the character training programme in general in the Army has gone from strength to strength in the ensuing years.

That the Army was prepared to provide this team was an indication of the high priority that was given to this work. Towards the end of 1959 the three-month National Service was being phased out, and the Army strength was being adjusted accordingly. Cutbacks in personnel were the order of the day in every corps. The Chaplains Department was the only one that did not get cut back, and this enabled the formation of the Team, which was based in Sydney.

Later on when National Service was again introduced because of the Vietnam conflict, there was to be a second Character Training Team, based in Melbourne, that operated while National Service lasted, to make it possible to cope with the increased number of courses. There were then new Recruit Training Battalions established at Puckapunyal and at Singleton, as well as a National Service Officer Training Unit at Scheyville, all of which had a regular schedule of Character Guidance courses.

Major Reviews of Character Guidance

Character Guidance courses and their organisation, method and content were constantly under review by the Chaplains General and the Character Training Team, however in 1969 the Chaplains General arranged a major review, and gathered together some chaplains in Canberra including the two Training Teams and the chaplains who regularly assisted them. One of the features of this review was an evaluation of Character Guidance by an Army Methods of Instruction team under the leadership of Lieutenant Colonel R. Hannigan which indicated that instruction in Character Guidance courses was apparently effective. The conference made an intensive examination of content and method of the course, and while there were some moves to make it less “legalistic” in approach and less rigid in content and method, there was no substantial change made. The course had stood the test of ten years of operation with remarkable success.

In 1977 a major part of the Chaplains Corps Conference was devoted to Character Guidance. For some years there had been moves towards a more student-centred approach rather than a strongly subject-centred approach, and this had climaxed in a “workshop” in Sydney in 1977 which made recommendations to the Corps Conference. What was proposed was a fairly radical change of method and technique, to be phased in as instructors were able to cope with it, based on Small-Group Learning techniques. This proposal received endorsement from the Conference, together with implications for chaplain training. It was to be reviewed at the end of two years by the Chaplains General.

Training Aids

Some mention has been made of training aids and some further comment is germane to a record of developments since 1959. The first course used four films as its training aids, and it was suggested that this might be an area that would profit by further development. Later courses made extensive use of additional training aids in the form of charts, 35mm slides and overhead projector transparencies. These were developed over the years by various members of the Training Team. In 1971 the Training Team made a significant departure from tradition, and commissioned a Sydney Audio-Visual specialist, Pilgrim Productions, to prepare a number of training aids, using cassette tapes with recorded music and voice, with a film strip, all fitted into compact projectors that could be easily carried from place to place by members of the Team. These were excellent productions that received a lot of use over a number of years.

The change to Small Group Learning Methods has meant decreased interest in training aids, as this method does not require them to the same extent. Films have been and still are an important training aid in Character Guidance.
Course Content

A history of Character Guidance would not be complete without at least a brief review of the contents of the course, which in some sense could be said to have remained the same for twenty years.

As has been mentioned before, the Character Guidance course emerged unexpectedly and was an adaptation of a voluntary religious course called the Moral Leadership course. It remained a religious-based course even though it was now compulsory, and at the time this presented no difficulties. Army Military Board Instructions stressed the need for Commanding Officers to be responsible for the moral and religious welfare of their soldiers. Concern for the welfare of soldiers included concern for their religious development. The new course did not assert that the only way to build character was through the Christian faith, but it did set out to develop character through a promotion of the religious and moral tenets of the Christian faith, on the grounds that Australia was a Christian country.

This was acceptable to most for the following reasons:

a. The Korean Document stressed the importance of religious faith and the need for an Army to be concerned with strengthening this,

b. Christianity was seen as a means of combating communism.

c. Sir William Slim’s book, “Defeat into Victory”, (8) maintained that men of faith were the backbone of the Army and this book had a considerable influence in Army circles at this time.

d. Christianity was often seen as somehow synonymous with representative democracy and the Australian way of life.

As far as content was concerned, the course was based on “The Maker’s Instructions” (The Ten Commandments). This concept was being used by some in the Moral Leadership courses and was accepted by all as the basis of the Character Guidance course. The concept itself came from a man by the name of F. J. Sheed, an Australian who moved to England where he published a slim volume (9) that contained a chapter on The Moral Law. In this chapter he developed the idea that the moral law was similar to the Maker’s Instructions that Mr. Ford might issue with his cars. The maker knows how his cars should be treated in order for them to run satisfactorily; to ignore his instructions would be the height of foolishness and sooner or later would result in trouble and breakdown. God has made us, says Sheed, and he has given instructions on how we should live. We ignore the maker’s instructions at our peril and sooner or later this results in personal and societal breakdown.

This concept of the moral law as “The Maker’s Instructions” spread widely and appeared in various publications. It was therefore not by any means original, but it did seem to provide an approach that was acceptable on the grounds of common sense for those who might not otherwise so readily accept the ten commandments.

This approach dominated the content of Character Guidance for ten years and was influential for some years beyond that. The major review of Character Guidance (mentioned above) in 1969 was a consolidation and clarification of the rationale and the content of Character Guidance, and did not make any changes. It did however see some dissatisfaction surfacing with regard to the ten commandments being the basis of the course, and resulted in agreement that there could be differences of emphasis in the denominational groups without altering the basic subject matter. This development took place and resulted in 1971 in an official change in titles, from those that were part of the Maker’s Instructions approach, to titles based on a cluster of subjects gathered around the concept of “You the person and your character development”. The content of the course remained basically the same.

There has been further development since, particularly in the period since the Corps Conference (mentioned above) in 1977, which accepted a greater degree of flexibility in a number of areas. The rationale of the course now centres on human growth and development as being development in the area of self understanding, interpersonal relationships, religious understanding and moral understanding. Although it may now be presented in a different way, the original content of the course is still recognisably there.

The Character Guidance course was never an attempt at religious indoctrination — even though some instructors may have made the mistake of attempting to make it this. However
if there is a continuum with the opposite poles being indoctrination and education, then it could be said that in its approach the course has definitely moved towards the education end of the continuum.

A further factor influencing content has been the change in method discussed below. Using this method has meant that to some extent the type of people in the group and the development of group relationships determine the content of the course, and some flexibility with regard to content is required.

Course Method
The course began with a lecture and syndicate discussion format. The first course at Kapooka had syndicate groups with forty people in each, each group being chaired by a chaplain. Lectures were formal and normally delivered without interruption. Minor changes occurred, — syndicate groups were decreased in size to enable better discussion and chaired by recruits selected as group leaders. In the early 70's the lecture became less formal and often became a kind of lecture-discussion session with a continuing dialogue between the lecturer and the group. The syndicate discussion groups (usually followed by a report session in the plenary group and a summary by the lecturer) were still used.

1978 saw a gradual phasing in of Small Group Learning techniques. This involved a considerable change, because it meant that instruction was committed to being person-centred rather than subject-centred (some instruction had been tending towards this before). The content was now determined to some extent by the needs of students instead of being entirely determined by a syllabus. It has meant that some instructors have had to learn new skills and this has not been easy for all. It has also meant that with the facilities available and the number of instructors available, fewer numbers can be included in each course, and the number of courses at Kapooka has increased to cope with this.

Organisation
Character Guidance courses were begun by the Conference of Chaplains General and they continued to exercise direct responsibility for this programme until 1973. It is true that the formation of what is now the Character Training Team in 1960 gradually relieved them of more and more of the day-to-day administration, however the Team worked directly under the Conference of Chaplains General and reported to them directly. In this way the Chaplains General retained an active interest in the programme, the directions of its development and the practical concerns with which it grappled from time to time.

In 1973, Staff Chaplains — Chaplains whose major role was to administer an area of the work of the Chaplains Department — were appointed. One of these became Staff Chaplain Training Command and with two other Staff Chaplains located in Sydney, became responsible for the Character Training programme, including Character Guidance courses. The Character Training Team was attached to Headquarters Training Command, not Army Headquarters, and the direct link between the Chaplains General and Character Guidance was ended.

In part this had to do with the reorganisation of the Army, but in part was also an inevitable outcome of the growth of the Chaplains Department. The Chaplains General have been heavily committed with their denominational responsibilities and with being the policy making body, and it is no longer reasonable to expect them to be involved directly in the Character Training programme.

For the first years of its existence, the Character Training Team had no written administrative instructions as far as the Army system was concerned. This made it vulnerable to interference by people who did not understand or appreciate the programme and often subject to the whims and fancies of people on whom it relied for administrative support. Over the years this has gradually been rectified and improved and the programme now runs relatively smoothly without the difficulties experienced in early years. However by comparison with other Army lecturing teams it still lacks equipment entitlements and suffers from an extremely heavy work load.

Significance of Character Guidance
It is not possible in this history to evaluate the significance of Character Guidance courses for the men and women of the Australian Army, however the testing that has been done indicates that the course has made a considerable impact on many, and some impact, at least temporarily, on all. It is
important to record here that Character Guidance is now not the sum total of Character Training by way of courses, — it is the “beginning” course, set in a programme that includes a further course as the soldier moves to Initial Employment Training and regular courses in the units in which he works. This has taken some of the pressure from instructors, in that they no longer have to feel that this is the one opportunity to achieve everything, and has enabled the setting of more realistic aims. There is no doubt that many of these aims are being achieved, if the course assessments of students are a reliable guide.

The course has also had a great deal of significance for the Chaplains Department. In a time when there was little contact between chaplains in the Army and each tended to work on his own, Character Guidance was the means of bringing chaplains together. Even more, it required chaplains to work together as a team and no doubt was largely responsible for a spirit of trust and ecumenism that was far ahead of the civilian churches at that time. Throughout its 20 year history the Character Guidance programme has relied on the assistance of Army Reserve chaplains, and this has proved mutually beneficial.

The Character Guidance programme, and particularly the formation of the Character Training Team was an influence in gradually organising the day-to-day activities of the Department as a whole to fit administratively into the Army system rather than having to rely on ad hoc arrangements and the good will of those in positions of authority.

It has been said that the Australian Army Character Training programme is as good as, or better than, that of any other western military organisation. Whether or not this is so, it certainly is a highly developed and well-run programme. The Character Guidance Course is the back-bone of this programme and has been the part of the programme that has most influenced Character Training development. In this respect, therefore, it may be said that the history of Character Guidance is the history of Character Training in the Australian Army.

It is fitting to conclude with a tribute to the vision, persistence and ability of the Chaplains General of the Australian Army, as well as to the dedication and loyalty of the members of the Character Training Teams over the years. To this must be added a tribute to the many chaplains who have assisted as instructors in the Character Guidance programme, at least one of whom has done this since the inception of the course and is still continuing.

**NOTES**

(5). Technically Deputy Chaplain General, as the official title of Chaplain General Roman Catholic was held by Archbishop Mannix at that time.
(6). From the Conference minutes.
(7). Discussed more fully under “Development of Course Content”.
LEADERSHIP
By Lt. Col. M. C. Morrison, RAINF

No matter what style of leadership is followed — and there have been many updates on the ‘trait’ style — eventually the leader and the led have to confront one another in open face to face contact and communicate. There is every indication, both in the Defence Force and the community, that this level of contact is being eroded. Systems based on technological breakthroughs lead to problem solving situations not being properly ‘talked through’. And also with the shorter working day and working week we are at pains to keep the leader and the led apart.

Technological advance and increased leisure time are worthy ends in themselves, but in an ever increasingly complex society, if we are to keep the ‘P’ in people, we must talk with each other more frequently and longer. That is the real challenge to leadership today.

CURRENT DEFENCE READINGS

Readers may find the following articles of interest. The journals in which they appear are available through the Defence Information Service at Campbell Park Library and Military District Libraries.

Countering Urban Terrorism. Elliot, R. J. British Army Review; Apr. 81: 16-24, Bertrand Stewart Prize essay 1979. Covers history of guerrillas and development of terrorism till present time. Organisations covered include IRA, PLO, FLN, UFF, but more specifically Irish urban terrorism.

Japan’s Security Dilemma: an American View. Adelman, Kenneth L. Survival; Mar./Apr. 81: 72-29. Assesses the external and internal changes bearing on Japan’s security policy, and outlines a number of steps — in the military realm and outside it — for a more active Japanese role in defence of the west.


Terrorism in Turkey: Threat to NATO’s Troubled Ally. Fay, James R. Military Review; Apr. 81: 16-26. Turkey’s military government, which took over in September 1980, has announced an ambitious plan to restore public order, but the roots of terrorism run deep and its elimination may take a long time.


The United States Interdependence and National Security. Haseman, John B. Military Review; Apr. 81: 9-15. Events in recent years have demonstrated to the U.S. that threats to its national security exist not only in Europe, but at other locations in the world.

A new Debate on Ballistic Missile Defence. Gray, Colin S. Survival; Mar./Apr. 81: 60-71. Argues that the strategic world has changed so markedly since the very early 1970s that, given the inherent importance of the subject, the question of the policy relevance of ballistic missile defence of different kinds should be raised anew.
IMPROVING THE LEVEL OF CO-OPERATION BETWEEN THE RAAF AND ARMY AIR DEFENCE UNITS

By Major D. J. Reid psc G(a) RAA

INTRODUCTION

How often have you heard RAAF personnel and Army air defence gunners arguing about how one had outmanoeuvred or shot down the other? I have — far too often. And I have been guilty myself. The argument then usually broadens out to reveal several areas where the philosophies of the two groups are poles apart. This is hardly an acceptable situation when the two organisations must co-operate so closely in war. If the situation is allowed to continue it could lead to failures in war with the resultant recriminations. This would sour the relationship further for years afterwards. I am not sure that some of the present difficulties are not a product of things that happened to some of the more senior people in past wars.

I do not suggest that arguments are necessarily all bad. They often indicate a healthy rivalry which does no one any harm. They can often unearth the root cause of disagreements and this can lead to their solution. However, if nothing is done to resolve frictions, and arguments become the main feature of the relationship, the time has come for change.

Air defence is a tri-service effort. Because of this, although responsibilities are clear, the command chain can be unclear at times for Army air defence weapons. Several different permutations can be in use at the one time depending on the target being defended, its location and so on. Also doctrine cannot cover every eventuality. In these cases, commonsense, goodwill, mutual respect and co-operation are all essential if the air defence system is to work.

The title of this article seems to imply that there is too little mutual respect and confidence between the RAAF and Army personnel involved in air defence. To me, it does not suggest that there is no co-operation, just that there needs to be more. I agree with this proposition. In this article I will attempt to isolate some of the causes of the problem, discuss them and then make some suggestions to improve the situation.

ADVERSARY SITUATIONS — RAAF V ARMY

The very nature of the methods used to train air defence units often placed them in adversary situations to the RAAF. The RAAF is the major source of realistic aircraft for training. The aircraft most often used are fighter aircraft, the very ones with which air defence units must co-operate most closely in war. This adversary situation of itself is not necessarily wrong. However, all too often, this small rift widens as a result of incidents during the training. The initial spark could be a claim by an air defence gunner of how many aircraft were ‘shot down’. No red blooded pilot could let this sort of statement go unchallenged so he boasts how no aircraft could have been ‘shot down’ as they were all flying too fast or too high. It is an argument which cannot readily be resolved. There is rarely any independent means of determining aircraft speed or height. Umpires cannot be unseen observers at every weapon site to see if the weapon is ‘launched’ in
such a way as to complete an effective engagement.

There are numerous other areas where complaints arise during exercises. The air defence gunner can feel frustrated when aircraft 'shot down' continue the mission. Aerial photos taken on such a sortie are frequently still used. This all seems unreasonable to the gunner. The pilots can be annoyed that high numbers of 'kills' can be claimed against them when the defender has not been required to reveal himself by firing any of the many missiles he claims to have fired. The pilots claim with justification that they would have been able to react to this veritable barrage by trying to avoid them, changing tactics or attacking the sites.

The adversary situation is imposed in another arena — that of competing for funds for equipment. Each Service sees the others proposals for equipment as a threat to the funds required for their own equipment plans. The two Services can argue against each others bids for air defence equipments, rather than deciding as a team what is required for air defence and then supporting each other in all further discussions.

As far as remedial options are concerned, that of discontinuing exercises where air defence units are ranged against fighters, is unrealistic. There usually are some quite positive results from such exercises. The officers planning the defences can gain some indication of the efficacy of the layout. Weapon operators get valuable experience against realistic targets. Pilots may learn tactics to employ in the face of enemy air defence weapons. These positive results need to be emphasised in any exercise debriefs. Haggling about numbers of kills and so on should be avoided. The positive lessons should be disseminated down to all exercise participants.

Exercise planners can do much to remove sources of irritation. At the outset, the aims should lead to the positive lesson and not suggest testing one element against the other. The planners should agree on rules for determining the results of engagements and what restrictions are to be applied to 'downed' aircraft and 'damaged' weapons. It should be possible using pyrotechnics and radios to advise pilots when they are being engaged and provide a realistic 'site signature'. Every effort should be made to be able to provide umpires with details of aircraft speeds, heights and ranges from weapons. This would help in the adjudication process which, above all, must be quick, with the results passed back to the detachment concerned.

It is probably worthwhile both before and after the exercise to remind participants that they are indeed parts of the same important team, but that they must train against each other as well as together. Commanders must take the initiative in this regard and also be firm in dealing with carping by their subordinates.

Officers from both Services often get opportunities to speak to groups from the other Service. Every chance to emphasise the 'team' approach should be seized and exploited. Of course, this process should be undertaken within each Service too. This 'selling' process will be slow, but every little bit helps. The 'team' should not be limited to air defence units in the Army and fighter pilots and control and reporting personnel in the RAAF. Other elements of the RAAF should be encouraged to see the Army as part of the team which provides for the air defence of important targets which may, of course, include their airfield. This same message needs to be inculcated into the great bulk of the Army as well.

THE USE OF AIR POWER

The almost complete lack of understanding within the Army, including air defence units, of how air power should be used can be a significant cause of friction between the two Services. A lot of people in the Army see the RAAF as little more than an appendage to the Army. Following on from this concept, they see the job of the RAAF as providing air defence, close air support and air transport for the Army. They have missed the point that separate air forces were created to break away from that concept. What was wanted was a service able to plan the use of air power with a broader perspective than that associated with the conduct of the immediate land battle. Air forces have to be used to further the aims of the force commander, not the ground force commander. They can be markedly different in emphasis.

This difference in concepts of employment has been the cause of serious inter-service recriminations in the past, particularly in war time. There have been numerous instances where armies have felt that their air force is little short of cowardly because the aircraft
were not seen over the battlefield when they were being 'hammered' by enemy planes. These hapless soldiers could hardly be blamed for being bitter. Their leaders, who should have known better, joined in the expression of bitterness rather than ascertaining the real reason for the absence of their planes. None may have been based anywhere within range or they may have been staving off an even worse situation for the Army but remote from it. The relevance of this history is that a legacy of mistrust still exists between the services to this day.

The attitude is manifested in many ways. Some of them have surfaced in the continuing argument about where Rapier should be deployed. A number of people in the Army see the desire by the RAAF to have Rapier for the defence of airfields as nothing more than the RAAF providing a 'cushy' life for itself at the expense of the fighting soldier. They fail to see that the Army is just as responsible for providing Rapier to defend airfields as the RAAF is to provide aircraft for air support. The provision of Rapier to defend the airfields against enemy air attack could perhaps be the only way that any RAAF aircraft survive at all to support the Army. An allocation of Rapier to airfields could only be made by the force commander and he would only do so if he believed it was the best way to achieve his overall aim.

In a commendable effort to improve inter-service relationships and to practise better the procedures for obtaining air support, both Services are making a rod for their own backs in any future high or mid-intensity war. In exercises, and in recent lesser wars, the Army has been provided with a scale of air support far more lavish than could reasonably be anticipated in war. Strident recriminations are sure to ring out if this scale of support is not available in war.

There needs to be an education programme aimed at Army officers, and to a lesser extent the RAAF, to ensure that they know how air power might be employed in war. They have to be told the harsh facts that little close air support on air defence protection is likely to be provided by the RAAF for quite long periods of time, particularly if we do not enjoy air superiority. They must understand that the absence of friendly aircraft over the ground battlefields means that the force commander has accorded a higher priority to targets elsewhere or there are no aircraft. Once the leaders understand the situation, it will soon filter down to the soldiers.

Caution needs to be exercised in planning the scale of air support for training exercises. If a lavish scale is provided, it would probably be best to remind all participants that the support likely to be available in war would be less. In any exercise, it may be useful to remove most support without warning and allocate it to 'higher priority tasks' for a period of time. Such occurrences would not be unlikely in war.

Every effort should be made to stamp out the myth of the 'cowardly RAAF'. The education programme previously mentioned should help, but again commanders must act firmly to stop the spread of this outdated and usually unfounded mistrust. People must be made to realise that to hold such views is counter-productive, even leaving aside the theories about self-fulfilling prophecies.

**DOCTRINE**

A lack of knowledge or appreciation of agreed Service responsibilities can often cause friction between Services. In the past, some Army officers have, for example, claimed that the Army is responsible for the air defence of just the field army. The RAAF listener could be forgiven for seeing this as an example of Army parochialism, and make a decision, conscious or otherwise, to co-operate less. If the original claim were not made in ignorance, but in some bureaucratic manoeuvre at the time, the result is just the same but the action more reprehensible.

The Army is not alone in ignoring responsibilities. In its quest for money for aircraft, I would suggest that the RAAF may have forgotten the need for the Army to have Rapier. There will be insufficient Rapier to protect bases housing the critical national assets of the strike force, the fighter force and control and reporting facilities. This could perhaps be better described as ignoring reality than ignoring responsibilities. In any case, it smacks of the same 'feather bedding' as the misguided Army claim.

There have been attempts at agreeing some Joint air defence doctrine. They have not been successful and this causes problems for the RAAF and the Army. Too often, the participants at such conferences are inexpert in
the field of air defence and sometimes they produce argument not in accord with agreed doctrine. Much of the doctrine agreed by these groups fails to get to the heart of the problem. Rather than tackling and solving problem areas, it settles for rather meaningless words capable of several interpretations. Then, when officers at the working level come to put the doctrine into practice, they find large gaps.

Within the doctrine of each Service there are areas where recognition of the doctrine of the other is essential. Also, the operation of the air defence system would be enhanced if each service knew better how the other operated. One Service can then perhaps understand more easily why the other made a particular decision. This single Service doctrine is formulated much in isolation at the moment. Little filters through to the other Service.

To achieve better relationships, it is essential that everyone knows and observes agreed Joint doctrine. The doctrine needs to cover all contentious areas in precise detail so misunderstandings cannot occur. There is an urgent need to agree and publish this doctrine.

Each Service should know more about the other’s doctrine. The process would be helped if publications of the other Service were more readily available. The level of knowledge would be improved if there were more attendance by RAAF fighter pilots and air defence officers at Army air defence courses and the reverse is also true. There would also be gains in the area of personal liaison and these will be discussed later.

REALISTIC COMMITMENT TO AIR DEFENCE

For many years the Army exhibited no realistic commitment to air defence, Joint or Army. Units, always low in number, were manned at minimal strengths and were provided with archaic and inadequate equipment. Seeing that the Army had neglected its responsibilities, it is little wonder that the RAAF ignored the Army’s contribution to air defence. Army participation in RAAF air defence exercises was at best a ritual and a whole automated control and reporting system was introduced with barely a passing reference to the Army’s requirements in such a system.

The Army commitment to air defence has improved somewhat in recent times. More manpower has been allotted but there are still ‘on again/off again’ rumours of unit disbandment. No units exist in the Army Reserve. There seems to be no recognition of the long time taken to train leaders and technicians for large air defence force likely to be needed in the early stages of the war. When the quantity of Rapier bought is compared with the quantities bought in other purchases, one could believe that cost, not need, was the main, and perhaps only, determinant. The Army has gone through the motions of being committed to air defence but the results show otherwise. This is no way to establish the status of air defence in the eyes of the RAAF.

The RAAF could equally be accused of a lack of a real commitment to air defence. Their selection of capabilities to acquire seems to give preference to those areas promising excitement and flying jobs for fighter pilots at the expense of things such as passive measures and an adequate low-level radar cover. They ignore their inability to defend their bases against low-level attack. To accept this threat could make their procurement arguments susceptible to challenge.

The Army must make an unmistakable commitment to air defence. The basis of this must be a realistic assessment of the size of force necessary to be able to expand to the target force in time. Then there must be a gradual expansion to this core force level. Perceiving the commitment by the Army one can only hope that RAAF might also be encouraged to be more realistic. It has already started taking Army defence more realistically.

THE TWO ROLES OF ARMY AIR DEFENCE

The wide nature of the Army responsibilities for air defence leads to two modes of employment. Some units are required to defend static targets well back from the FEBA. Here there is little emphasis on movement but the scale and complexity of the threat is greater. The other mode is to defend targets in the combat zone where the premium is on movement. The latter type of task seems to offer more chances of excitement than staying at the same place for extended periods. Of course, countering a massed aircraft attack back at the static target could well prove quite exciting but that does not happen in exercises.

Typical of the static targets to be defended are RAAF airfields. Thus the RAAF is quite
wrongly blamed for the unexciting type of defence. Most soldiers would prefer to be involved in the defence of a manoeuvring formation. How else could he display his dash elan? There are pressures from the rest of the Army for air defence units to exercise with them, particularly with new equipment. The unit can spend only so long on exercise so it must be selective. The RAAF could misinterpret the reluctance to defend static targets as evidence that the Army was not willing to shoulder its responsibilities.

To prevent misunderstandings the Army should seek to be involved in exercises defending all manner of targets. It is just too bad if everyone finds it boring. A lot of time in war is likely to be boring and commanders must learn to cope with it. The units will gain experience in defending all types of targets and it will not give the RAAF any cause to doubt the sincerity of the Army. Additionally, the rest of the Army will get used to not having air defence units available all the time.

DANGER TO AIRCRAFT

To the Army, the RAAF has an obsessive fear of friendly air defence weapons shooting down their aircraft. It often reaches the point where more energy seems to be directed towards ensuring such an accident cannot happen than is used in employing air defence weapons to best effect against the enemy. The usual tactic is to place stringent restrictions on the fire of air defence weapons without any regard to how much less effective the weapons become. To the Army it seems that the aircraft rules supreme.

Safety of friendly aircraft is best enhanced by separating them from air defence weapons. Ideally, aircraft should not fly over weapons. If they do, the aircraft is endangered or the defence must be restrained and thus made less effective or both. Even when procedures are laid down in exercises to separate aircraft and weapons, the aircraft often ignore such controls. The air defence gunner, frustrated by this wanton violation of the rules, claims a kill against one of them. This claim is passed to the RAAF to emphasise the violation. The RAAF sees the claim as a further reason for them to fear for their safety in the face of these Army people who cannot recognise friendly aircraft.

Often there are good reasons why aircraft must fly over weapons. Few gunners would be too concerned about occasional friendly overflights provided they had prior warning. Why then do flights occur without warning? The main reason is probably that the RAAF do not have a very high opinion of Army air defence. They do not see why they should be worried by restrictions caused by this lower form of existence. Also, they probably are not aware of why the Army seeks to stop friendly overflights or of the difficulties of recognition during low-level engagements.

Exercises with the RAAF occur infrequently. New officers appear each time to perform duties in the control and reporting organisation. By the time they are settled in and known well enough to try to influence these contentious matters, the exercise is finished and they depart. Several other air defence exercises occur without the Army or the restrictions they cause being present before the next Army involvement. It is little wonder that the RAAF do not concern themselves with this temporary irritant.

In spite of the understandable reasons, the fact still remains that the Army believes the RAAF is overly concerned with aircraft safety. No one would deny the importance of husbanding precious pilots and aircraft but the Army sees their efforts to fight the enemy being hindered unduly. Their chagrin is not improved when they see aircraft flaunting procedures established to provide for their safety. The Army sees the danger to aircraft as a normal operational risk, not unlike the risk to soldiers in the forward area from a misplaced friendly airstrike. In spite of numerically greater casualties to the Army from this sort of accident, the Army does not place such restrictions on the use of aircraft that their effectiveness is negated. Their unhindered assistance is needed to achieve the common aim.

The reasons for the Army's wanting no friendly overflights need to be better understood by the RAAF. This, coupled with more exercises where the Army element is included, perhaps in skeleton form, should lead to a constant situation where Army areas are respected. The RAAF would not fly over the Army unless it was necessary. Then the Army would be told. The Army would not object to these either because they would know the overflight was necessary. The constant interchange between the same officers in itself
would improve the standing of the Army (and RAAF) and the Army views would be likely to have more weight.

The Army's views on the procedures for safeguarding friendly aircraft could be disseminated during any discussions between RAAF and Army. These could occur when people from one Service attend courses or exercises conducted by the other. There would also be gains in the area of personal liaison.

**RUNNING SORES**

In recent years, there have been a number of subjects which caused running battles between Army air defence and the RAAF. They did not agree on the weapon which should be procured to fulfil the capability now filled by Rapier. Some in the Army, quite incorrectly as far as doctrine is concerned, carried on an argument that Rapier should be reserved for the field army. RAAF officers have sought the right to tell the Army when it can fire its field artillery. No one would dream of allowing a divisional commander to tell a RAAF commander, 100 kilometres away, that he could not use his major battle winning weapon, his fighters, because of the slight possibility that the fighters may cause an expended missile, cannon shells or a drop tank to fall on some element of his division. Why then propose that a RAAF commander, remote from and with no responsibility for the land battle and fighting a battle of his own, should be given the right to tell a divisional commander that he cannot use his major battle winning weapon, his artillery, because of the slight possibility of damage to aircraft?

Often these arguments are quite absurd and are a major waste of time. They caused a lot of ill-will because they dragged on for so long with futile debate. Precious time has been wasted in agreeing procedures and these agreements are yet to be achieved.

There needs to be firm action taken to stop fruitless and counter-productive quarrelling. When a clear breach of doctrine is involved, the perpetrator should be brought into line post haste. Where a real divergence exists, the personnel capable of solving it should be assembled before ill-will develops.

**PERSONAL LIAISON**

In most fields of endeavour, a better result is usually achieved if the people involved know each other and have worked together previously. When a good working relationship has developed, the parties involved understand the others' motives and methods. They know that a request by the other is made because it was necessary and they will do their utmost to meet it. They trust each other implicitly.

This happy sort of relationship cannot happen overnight. It takes years of patient building. This is the sort of relationship which should exist between the RAAF and Army air defence units. If it did, inter-Service problems would hardly ever arise, and any which did would be solved quickly.

For a multitude of reasons, some mentioned earlier in this article, to working relationship, RAAF/Army air defence, falls far short of the ideal. This allows minor problems to cause rifts. There is little desire to understand the others' problems. There are occasional exercises where the level of understanding and cooperation improves, but this is short lived. Most of the time, the two Services approach Joint problems intent on preserving their service standing rather than seeking the optimum solution.

There has been a tendency for personalities to dominate the discussions on Joint air defence. These people have sometimes taken extreme stances, often at variance with doctrine. They argue their case with such vehemence that the other service representative is more inclined to take the opposite view. Their contribution is wholly counter-productive.

It seems to me that a lot of good would result from improved personal contact between RAAF and Army air defence personnel. The personnel selected to effect this liaison should be chosen carefully. They must know and observe doctrine. They must adopt a cooperative attitude, avoiding extreme stances. Such personnel must be left in no doubt about the importance of their job and be encouraged to consider the 'big picture' always.

The contact should not be limited to air defence exercises. Simply knowing each other is important. The junior officers of today, who co-operate and become friends, will be an even bigger asset in a number of years as they assume more responsible jobs. They will be able to draw on the reservoir of mutual respect when problems arise.

An area offering considerable promise for the establishment of lasting and beneficial (to
IMPROVING CO-OPERATION BETWEEN THE RAAF AND ARMY AIR DEFENCE UNITS

Air defence (radar) friendships is that of Ground Liaison Officer (GLO). An area defence officer serving as a GLO at a fighter base would become friendly with numerous fighter pilots. It is most important to have the respect and the friendship of pilots as, rightly or wrongly, they fill most of the important command appointments in the RAAF. Their sympathetic assistance and goodwill could be invaluable in the future.

As well as making friendships within the fighter squadrons, there is likely to be a control and reporting unit on the base with whom close contact is essential. That unit controls the minute to minute conduct of the air defence battle. The GLO could disseminate details of how Army air defence operates to the control and reporting unit as well as the fighter squadrons. This should help to prevent some of the minor inter-Service squabbles. He could always advise the Army when problems which he could not solve arose rather than let it be raised unannounced at some high level conference.

It is probable that an air defence officer may adapt to the duties of GLO more quickly than other officers, he is already aware of how aircraft carry out their attacks and some of the constraints on them. The RAAF may appreciate having an officer who can provide them with advice in carrying out other roles than ground attack. I do not suggest that an air defence officer could necessarily do the classical GLO duties any better than any other officer. However, I do believe it would be more beneficial all round to the Services if GLO appointments on fighter bases were reserved for air defence artillery officers.

There are other appointments where useful liaison could be conducted. If sufficient work became available to warrant it, an air defence artillery controller would provide a permanent presence at the control and reporting unit. This would ensure that Army interests were represented in all exercises. The appointment of any Army air defence officer at Headquarters Operational Command has proved to be most successful. There needs to be consultation by the specialists at Army Office/Air Force Office as well to ensure unity of approach.

The Army needs to show its good intent by seeking to be instructed by the RAAF on how the RAAF sees air defence operations being conducted. To this end, the Army should seek to have RAAF officers provide instruction during appropriate Army air defence courses. It would also be in the Army’s interests to open some courses to RAAF students, both pilots and air defence controllers. Friendships could be established and all students would attain a better understanding of how the other Service operated. There may also be RAAF courses which may be suitable for attendance by Army students.

CONCLUSIONS

The level of co-operation between the RAAF and Army air defence is less than ideal. This is, in the main, caused by predetermined negative attitudes. Each side may co-operate but on his terms. Both Services seem to take a narrow view of their responsibilities. The capability of the air defence system in war would be adversely affected by this lack of co-operation.

Doctrinal issues are a problem. There are gaps in doctrine and that which exists is often ignored. There needs to be more collaboration in this area.

The overriding requirement is to improve the level of goodwill. This can be done by increased personal liaison by all concerned. Once goodwill is established, there will be a strong desire all round to solve mutual problems.

RECOMMENDATIONS

The Army should take steps to improve the degree of personal contact between the RAAF and Army air defence units by taking the following steps:

a. The GLO positions at fighter bases should be reserved for air defence artillery officers.

b. Existing air defence artillery appointments with the RAAF and AJWE should be retained.

c. The Army should seek RAAF instructors and students for Army air defence courses.

d. The RAAF should be encouraged to visit Army air defence units and exercises.

A concerted effort needs to be made to promulgate doctrine, agree to new doctrine and then ensure it is observed. This would be easier if good personal relationships existed.

The final need is to recognise all the positive factors there are in the relationship. Commanders must accentuate these and when criticism is warranted ensure that only constructive proposals are made. All must be subordinated to the need to improve the level of mutual respect and confidence.
The First session of the new federal parliament in 1901-2 did not provide an auspicious start to the defence of the new nation. Sir John Forrest may have been admirably frank when, in introducing the second reading of the Defence Bill, he admitted 'I do feel somewhat nervous on having entrusted to me a subject on which my experience has not been very great in the past', but he was not likely to create confidence in the Bill he was introducing. The Bill has in fact been described as 'a hodgepodge of the State Acts, designed merely to amalgamate the existing mechanisms which dated for the most part from the Sudan War of 1885'. Members of Parliament were clearly of the same opinion, as the Bill was allowed to lapse. The session concluded without a Defence Act being passed to regulate the forces which had been transferred to Commonwealth control by proclamation on 1 March 1901.

The next few years seemed to confirm this inauspicious start. The Commonwealth came into being almost at the start of one of those periods of retrenchment which had been experienced before federation, and were to occur again after it. In this case the decline followed the Boer War and there was a progressive decrease in the strength of the military forces from 28,886 in 1901 to 19,880 in 1904.

In 1903 Australia seemed to have lost its guarantee of naval defence as a result of the Imperial Conference of 1902. At that conference Lord Selbourne had persuaded Prime Minister Barton to accept the Admiralty's view that Australia's desire to participate in its own naval defence must bow to the logic of a single Imperial Navy. The 1903 Naval Agreement, narrowly passed in Parliament against considerable opposition, continued the system, accepted by the colonies in 1887, of subsidizing a British Auxiliary Squadron for service in Australian waters. Although the new agreement provided for a more modern squadron, it did not provide the assurance, contained in the previous agreement, that the squadron would...
not be deployed outside Australian waters without the Government's consent.

There were, it is true, certain factors which tended to militate against a strong national defence policy. The first of these was the weak financial situation of the Federal Government. Although it had taken over responsibility for defence the Commonwealth was obliged to return three-quarters of its customs revenue to the states. As Forrest had pointed out, Defence 'was one of the most expensive departments of the Commonwealth'. In these circumstances the Auxiliary Squadron could be seen as providing Australia with a very cheap form of defence at a maximum cost to the Commonwealth of £200,000 per annum.

Secondly, there was a strong antipathy to regular forces, as well as a feeling that they were unnecessary. W. M. Hughes expressed the former feeling concisely when he said that 'A very small army could coerce a very strong democracy'. He associated the idea of a standing army with the military caste system in Germany. Memories of Eureka and the use of military forces during the Shearer's Strike of 1891 were still fresh in the minds of Labor politicians in particular. The belief in the efficacy of citizen soldiers, or at least of Australian citizen soldiers, was reinforced by the excellent performance of the Australian contingents in South Africa. Forrest, referring to their performance, said 'I have no fear now but that we should be able to offer successful resistance [to a foreign invasion]'.

The revival of imperialist sentiment in the 1890s, and its strengthening during the Boer War, undoubtedly played a part in delaying the establishment of an Australian Navy. And yet Australians were sensitive to perceived threats — to those emanating from great power rivalries in Europe as well as those emanating from Asia. The Crimean War, the Franco-Prussian War, and rumours in 1877 of another Russian war, had all given impetus to Australian defence schemes in the past. In 1901 Deakin summed up the more recent influences when he wrote:

the loss of what is now German New Guinea and of Samoa, the neglect of the New Hebrides, and the recent appointment of a French High Commissioner, with dangerous powers over all the western Pacific, are experiences not likely to be forgotten.

In particular the German threat to British naval and commercial supremacy in the first decade of the century was seen as a threat to the British Empire.

Japan was not seen as a threat until it defeated Russia in 1904. Once this happened the threat became more immediate because it could be linked with the fear of the 'teeming millions' to the north. The Sydney Morning Herald told its readers that 'the yellow man has taught the white man a lesson that Australians can neglect at their peril'. In 1901 Hughes had stated that 'Our chief plank is, of course, a White Australia'. A policy of excluding the inhabitants of all the Asian nations implied having a capability to back the policy up. Such a policy also introduced another potential source of conflict. When Hughes passed through the United States in 1907 he noted the 'grace deterioration of relations between Japan and America' over immigration restrictions.

Australian nationalism was also becoming stronger. Those Australians who were prepared to accept complete British control of Empire foreign policy and defence ceased to be politically effective by 1907. This decline was particularly relevant to the question of naval defence, as will be seen later.

Developments in naval and military defence can be traced as two almost separate streams, the former dominated politically for a key part of the period by Deakin and centred on the controversy over whether Australia should rely on the Admiralty or develop its own navy, and the latter by Hughes and the compulsory training controversy. For the sake of clarity the two streams will be treated separately.

At the time of federation the Australian colonies had a number of ageing ships which had been acquired in the period after the Crimean War and which, although in some cases regarded as very modern at the time of their purchase, had been outdated by rapidly changing naval technology. By 1901 they were kept in reserve for harbour defence and for training. The British Admiralty had always considered itself responsible for the naval defence of the Empire but, in 1887, the colonial premiers had agreed to subsidize the cost of an auxiliary squadron of five fast third class cruisers and two torpedo-gun boats. The subsidy covered the interest on the capital cost and a share of the maintenance. The squadron was not to be deployed beyond a carefully defined area...
around Australia without the explicit agreement of the colonial Governments.

The Admiralty however developed a strategic policy which conflicted with even these arrangements. They claimed that naval defence consisted of a general offensive designed to destroy the enemy’s ships. This offensive policy led them to claim that since ‘the seas are one, this offensive must be under a single control; therefore there must be a single Imperial Navy’ 18. The idea of another government having control over deployment was unacceptable.

While the Admiralty was trying to move away from the Agreement in one direction, there were pressures in Australia to move in another. These pressures had been foreseen even before the 1887 conference by Admiral Tryon, who had been sent out to command the Australian Squadron and discuss naval defence with the premiers. He had noted very perceptively that unless Australians managed and manned their own ships they would soon find the cost of maintaining them very irksome 19.

In the forefront of the struggle to build up an Australian naval force were found, not surprisingly, the commanders of the moribund colonial navies. Of these Captain William Rooke Creswell, who had commanded both the South Australian and the Queensland Navies, was a leading and persistent advocate. Two important naval reports were tabled during the first session of Parliament. The first report was prepared by a Conference of Naval Officers, including Creswell, and had been submitted to the Victorian Minister for Defence in 1899. It pointed out that the Auxiliary Squadron was not training Australians and that ‘There has, consequently, been no advance in Australia’s ability to undertake any honorable share in her sea defence’ 20. The second report was prepared by Creswell himself and again emphasized that reliance on Britain meant ‘stagnation and continued naval impotence for Australia’ 21. By contrast the letter from the British naval commander also tabled during the session was not likely to gain support for the British view with its blunt assertion that the Federal Government ‘should take no part in the creation or maintenance of Naval Reserves or State Naval Forces’ 22. In 1902 Major General Sir Edward Hutton prepared a defence memorandum for parliament in which he emphasized that Australia’s first line of defence was naval. In referring to this memorandum in his
London for the safety of our harbour and its commerce. Deakin however was not prepared to move as fast as Creswell would have liked for fear of upsetting the British, whose goodwill and expertise he considered essential for the development of an efficient Australian Navy. Creswell and a committee of naval officers put forward a modified proposal in 1906 based on destroyers and torpedo-boats. The destroyers of 1300 ton marked a significant decrease in size compared with the cruiser-destroyers of 3000 ton previously proposed. At the 1907 Imperial Conference Deakin persuaded Lord Tweedmouth to accept the idea of an Australian Navy. However Deakin himself was influenced by British counter proposals that Australia concentrate on submarines for harbour defence. His statement on his return caused Creswell 'utter despair'. In May 1908 Deakin moved, as part of the Surplus Revenue Bill, that £250,000 be set aside 'for such naval expenditure as parliament may hereafter approve'.

The following November the Labor party took office with Andrew Fisher as Prime Minister. Fisher immediately announced the adoption of Creswell's scheme and ordered three destroyers to be built. The following March in his policy speech he proclaimed the intention of the Government to build four ocean destroyers and sixteen 'River' class destroyers within three years, in addition to those already ordered. This was a sizable force for a country with Australia's population. Fisher also told the Admiralty that in time of war or emergency all the ships of the Commonwealth would be placed under the command of the Admiralty.

It is perhaps ironic that, after all Deakin's hesitations and fears of offending the British Admiralty — hesitations which led to his Labor rival initiating the Australian Navy as an effective force — the British Government as a result of the dreadnought scare of 1909 completely changed its attitude towards 'colonial' navies. As a result of a rush of offers of naval assistance from the dominions, a Conference on the Naval and Military Defence of the Empire was hastily convened in July of 1909. Creswell as one of the Australian delegates had the pleasure of seeing the Conference agree to the formation of a Pacific fleet consisting of an East Indies, an Australian and a China Sea unit, each to consist of a large armoured cruiser (or dreadnought), three second class cruisers and three submarines. It was agreed that Australia would provide and maintain the Australian unit. Britain was even prepared to provide financial assistance. Deakin noted 'the chorus of approval at home and abroad'. Creswell's long fight received further justification when Britain, alarmed by the 1912 German Navy Law, decided to concentrate its capital ships in European waters and hence did not fulfil its commitment to fully equip the two British units of the Pacific fleet. The ultimate justification was to come with the discovery of the German light-cruiser Emden in the Indian Ocean in 1914.

In the meantime, political debate on the Army was being dominated by W. M. Hughes. On 5 June 1901 he put the first question to Forrest on the motion to bring in the Defence Bill. It was not the first question on defence in the new Parliament — he had been beaten by two other members earlier the same day — but it was a highly significant question. He wanted to know whether there would be an opportunity to bring in an amendment 'to provide for any system of defence', From then on Hughes pressed constantly for a system of universal compulsory training. While doing this he did not ignore naval matters. In July 1901 he drew members' attention to the lack of naval provision in the Defence Bill and asserted that 'our chief danger to Australia must take the form of a bombardment', however his over-riding interest was compulsory military training. He pointed out that the levy en masse provided by the first Bill would, in fact, produce a 'mob', while 'the volunteer is very like the snow in the summer. He melts away when the glamour and novelty of the thing has worn off'.

When the Bill was redrafted and resubmitted to the second session of Parliament in 1903 Hughes moved an amendment to introduce compulsory training. The amendment was opposed by Fisher on the grounds that the voluntary system should be tried first and Hughes withdrew his amendment.

At this time the Army was made up of the small Permanent Forces consisting of Administrative and Instructional Staff, the Royal Australian Artillery Regiment and small detachments of Royal Australian Engineers, Australian Army Medical Corps and the Australian Army Service Corps; as well as the much larger Citizen Forces consisting of Militia
Forces of all arms, the Volunteer Force of infantry, and Reserve Forces. The Permanent Forces were only intended to man strategic garrisons for coastal defence and to train the Citizen Forces. The contingents who had gone to China and South Africa, and only returned in 1901 and 1902 respectively, were all volunteers.

In 1904 the National Defence League was established, drawing members from the front ranks of all parties. Hughes was a founder and Honorary Secretary of the League. At the inaugural meeting of the New South Wales Division in September 1905 he seconded the adoption of a policy based on:

Universal compulsory training (military or naval) of the boyhood and manhood of Australia for purposes of National Defence, the military training to be on the lines of the Swiss system, and the naval training on the lines of the British Royal Naval Reserve.

Hughes believed that universal training was democratic and in accordance with socialist principles. He even spoke publicly in favour of it during his visit to England in 1907 in spite of the strong opposition of the British Labour Party to the concept.

Deakin, as Prime Minister, hesitated over compulsory training. In June 1906 he said he was an advocate of it but that it would only be politically possible 'by and by'. In December 1907 he finally announced his intention to institute a system of compulsory training in annual camps over three years. The Labor party debated its attitude to the forthcoming Bill the following July at its Triennial Conference and supported Hughes policy by a substantial majority. Although Deakin fell before his Bill could be passed it was introduced again by his Fusion Government in 1909. It now had the support of all parties and Hughes 'was in the unusual and enviable position of seeing essentially his own Bill introduced by the other side and supported by most of its erstwhile opponents.'

The Act provided for compulsory training for Junior and Senior Cadets from the age of 12 to 18, and then for adult training for two years. This training consisted of the equivalent of 16 days training a year except for specialist corps whose members undertook 25 days training. In the six subsequent years each member of the forces had to report for a registration day once a year. Because of the time required to organize such a large scale activity it did not commence until 1 Jan 1911.

The compulsory system bred considerable opposition, particularly because of the absence of provision for conscientious objectors. In 1913 the Australian Freedom League, which had only recently been formed to oppose the new system, had 30,000 members. Details of the harsh treatment meted out to cadets who refused to drill helped to arouse the emotions of this opposition. Nevertheless the scheme had the desired effect and the strength of the military forces, which had increased only slightly since the low point of 1904, rose from 23,696 in 1912 to 45,645 in 1914.

In the meantime the Military College which had been strongly urged by Maj. Gen. Hutton in 1902-4 finally made progress. In 1909 the first funds had been allocated for the construction of a Military College to produce staff officers for the Permanent Forces and the new Royal Military College opened in June 1911.

Whilst the reason for compulsory training — the defence of Australia — was overtaken by events in Europe, the wide support it received is an indication of the threat felt at that time. Jauncey, looking back from the early thirties could comment that the fear of 'the Jap ... only waiting for Britain's entanglement in a European war [to] descend on Australia [was] happily disproved later in the World War,' but the marginal scribbler who added beside this comment 'Is the author's face red now!' possibly during or shortly after World War II, illustrated very well that situations and perceptions are not fixed.

This article has perhaps tended to contribute to the tendency to look on naval and military changes in this period as merely a matter of political decisions made, sometimes belatedly, as part of a general inevitable trend. It might be emphasized in concluding that the trends did not seem inevitable at the time, nor were they merely a matter of political effort. The perseverance of naval officers such as Creswell at a time when the Australian Navy was virtually moribund (and in the face of constant opposition by British 'experts'), as well as the organizational effort involved in rapidly developing an effective navy once the ships had been ordered, was truly remarkable.
When Maj. Gen. E. T. Hutton assumed command of the troops of the six States of the new Commonwealth he was faced with great diversity and inadequacies in the training, organization and equipment of the six forces. A Department of Defence Memorandum of 1909 undoubtedly reflected the efforts which had gone into forming the Australian Military Forces when it said:

It is no exaggeration, therefore, to say that the task of welding these six unequal and diverse systems into a living organization was one not to be accomplished in a day or without infinite labour . . .

This infinite labour, whilst drawing on overseas guidance, produced the solid foundations for a national defence force without destroying those distinctive national characteristics which are still evident in 1980.

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THE INTRODUCTION OF THE UNITED NATIONS SYSTEM
OF CLASSIFYING DANGEROUS GOODS TO GOVERN THE
STORAGE, HANDLING AND TRANSPORT OF DEFENCE
AMMUNITION AND EXPLOSIVES

By J. F. Quirk

‘Gunpowder for many centuries was the only explosive in general use, but in recent times many other explosives have been invented.’

Handbook on Ammunition 1915.
By Authority of the Lords Commissioners of the Admiralty

THE NEED TO CLASSIFY EXPLOSIVES

EXPLOSIVES come in many forms and are designed to perform a variety of tasks; some are the ‘big bang’ type, others burn fiercely but do not explode except under extreme circumstances, whilst even further down the scale, some are so innocuous that their effect can be contained by a well designed package. Classification of explosives is intended to group ‘like with like’ so that it becomes easy to identify a particular group with a specific risk.

It is also useful to be able to group stores by ‘compatibility’ — which can be defined as ‘stores which, when placed together, do not increase the risk of explosion or the effect of one should it occur’.

In addition to the classification of explosives the risk represented by an accumulation of explosives is another vital factor; quantity-distance, once called explosive safety distance. Quantity-distance is concerned with the separation required either between quantities of explosive and other quantities of explosive or facilities or the public. Two quantity-distance are defined; an Inside Quantity-Distance, which is the distance required between stacks of explosive to prevent an explosion in one being transmitted to another and Outside Quantity-Distance, which is the distance required between a stack of explosive and a public area to prevent serious damage or injury in the event of an explosion.

It can be seen therefore, that an effective method of classification must produce a system which allows explosives to be stored in the safest possible way and at minimum risk to each other and public at large.

A BRIEF HISTORY OF EXPLOSIVES
CLASSIFICATION IN THE UNITED KINGDOM AND AUSTRALIA

The quotation at the beginning of this article demonstrates that by the beginning of the World War I the long reign of gunpowder was over. In the late 18th and 19th centuries many developments took place in the explosives field and by 1875 the UK had found it necessary to pass legislation to control the situation. The Explosive Act (1875) divided explosives into three groups (Group I Mass Detonation; Group II Fragmenting; and Group III Fire). Each group was in turn split into ‘compatible’ items. (It is interesting to note that in 1915, the Handbook on Ammunition listed 58 compatible groups and that by 1945 there were 330.) The act did not specify quantity-distance requirements but did require that the Services regulate for them.

WW1 showed that the Service needed a coordinating body to classify service explosives and to develop a common set of Quantity-Distance tables. As a result, the Classifications of Explosives Committee was formed in 1925. This Committee remained in being until 1948 when it was reconstituted as The Inter-

Mr J. F. Quirk served two years in the Navy Supply Branch with the Director of Armament Supply-Navy as Projects Officer, concentrating particularly on the area of explosive safety including implications of the latest changes described in the article.

He is a United Kingdom based Civil Servant whose two year exchange appointment expired early this year. Mr Quirk joined the Admiralty from school in 1954 and has spent the majority of his career in the ammunition supply field. His service in four R.N. armament depots has given him a wide experience in, and knowledge of, explosive storage, handling and transport regulations.

Article received February 1980
The classification system introduced by the 1875 Act remained in force until the late 1920's when an improved system, developed by the Explosives Classification Committee, was introduced for use by the Services. The new system defined four categories of risk i.e. quantity-distance categories, viz:

**Category** | **Defined Risk**
--- | ---
X — | Fire or slight explosion or both with a localised effect.
Y — | Mass fire or a moderate explosion but no mass explosion.
Z — | Mass explosion with serious missile effect.
ZZ— | Mass explosion with minor missile effect.

Compatibility groups numbered 15 and, as an added refinement nine fire fighting classes were introduced.

As a new explosive store was developed and before its formal introduction into service, tests were conducted to determine its category, group and fire fighting class. Thus, when introduced into Service, SHELL 4.5" HIGH EXPLOSIVE FITTED TIME FUZE was placed in Category Z Group 6 and fire Class 6.

As the new systems only applied to military explosives a number of other classifications had to be allocated to cover contingencies such as; rail marshalling, commercial sea freight and land, air freight. This system, with refinements, remained in force until 1976 in the United Kindom and is still in force in Australia; which has, historically, adopted the system in force in the UK.

**DEVELOPMENTS SINCE 1945 — THE NATO PRINCIPLES AND THE UNITED NATIONS SYSTEM FOR CLASSIFICATION OF DANGEROUS GOODS**

**The NATO Principles**

After WW II several parallel developments took place in the field of explosive safety and classification. The war had shown the need for improving quantity-distance tables and in the late 1940's and early 1950's a golden opportunity to conduct large scale practical experiments presented itself with the need to dispose of large amounts of German ammunition. A large number of tests were conducted and the results used to improve quantity-distance tables.

The war had also demonstrated the need for commonality of systems between allies, although this had not been achieved. When NATO was created, an attempt was made to formulate a system of classification, compatibilities and quantity-distances which would be acceptable to all member countries. The adoption of a common system would have resulted in easier movement of explosives and ammunition between member countries and a minimum of difficulty when ammunition belonging to one country was stored in another. A specialist working group (Restricted Group of Experts AC/74 (STORAM)) was created in the mid 1950's and after an initial report in 1962, which was accepted in principal by all member countries, the NATO PRINCIPLES FOR STORAGE were developed in detail and published in 1969. It was intended the NATO countries would adopt this system to derive the benefits of commonality and the experience gained during and after WW II.

The NATO Principles defined a system which had eight Hazard (Quantity-Distance) Classes and 14 compatibility groups. The Hazard Classes were defined as:

**Class** | **Hazard**
--- | ---
0 None — inert items.
1 Moderate fire.
2 Mass fire.
3 Burn and explode progressively ejecting small fragments and firebrands.
4 Burn and explode progressively ejecting large fragments and firebrands.
5 Explode in mass with blast and flame the major risk.
6 Explode in mass with blast and high velocity fragments the major risk.
7 Toxic chemicals with a moderate explosion risk.

The United Kindom in common with other NATO countries went ahead with planning for the introduction of ‘The Principles’ to govern storage, handling and transport of service explosives. Draft legislation was prepared and some publications were amended to include NATO classifications in anticipation of the changeover.

Whilst NATO was developing its classification system for military use, the United Nations was developing a system for commercial application. A special UNESCO Committee was formed and charged with the task of developing a system for classification of all types of dangerous goods. The aim was to recommend a system which was simple and safe for adoption in the field of international commerce. Until that time most nations had abided by their own systems, which often created difficulties when dangerous cargoes were shipped across national boundaries. The UNESCO Committee produced initial recommendations in 1957. These recommendations were refined over subsequent years and finally published in 1968. This system recommended that dangerous goods be divided into nine classes — of which explosives would be Class 1.

The classes were:

1. Explosives
2. Gases
3. Inflammable liquids
4. Inflammable solids
5. Oxidising substances
6. Poisonous/Infections
7. Radioactive
8. Corrosives

Class 1 — Explosives — was divided into four Hazard Divisions and fifteen compatibility groups; four fire fighting classes which related directly to Hazards Divisions were also included in the recommendations.

The system recommended by the UNESCO Committee achieved its aim in that it is essential simple to operate but does not reduce safety margins; it was rapidly adopted by the International Maritime Consultative Organisation (the body which regulates the operation of international shipping). The United Kingdom and Australia, in common with most maritime nations of the world, are signatories to the IMCO agreements.

The NATO Principles Versus the United Nations Recommendations

Despite the fact that the NATO countries had reached agreement on the introduction of the NATO Principles to govern storage, handling and transport of military explosives within and between NATO countries, it was realised that the UN Recommendations, which only governed the transport of dangerous goods, could be readily adapted to cover also storage and handling. It argued, particularly by the UK, that despite the enormous effort which had gone into the productions of the NATO Principles, preparations for their introduction should be halted and the UN Recommendations, adapted to cover storage and handling, adopted in their place.

The United Kingdom Inter-Departmental Committee on Explosive Safety and Transport produced an adapted version of the UN Recommendations which was eventually accepted and adopted both by the NATO countries and the UN itself. The advantages of adopting the UN Recommendations were seen to be that explosives, whether military or commercial, would be governed by the same rules and safety standards. As an added benefit, military explosives could be shipped or flown commercially using military labels which would be readily recognisable in the commercial environment. The UN Recommendations also had the inestimable advantage over the NATO Principles of being simpler to understand and apply.

NATO formally adopted the UN Recommendations in 1975 and the NATO Principles were re-written around them. The United Kingdom planned to begin the changeover to the new system in 1976 in respect of military explosives but, because of difficulties in re-classification of the whole inventory, the change was delayed until 1977.

AUSTRALIA AND THE UN SYSTEM

In Australia it was realised that adoption of the UN System would be necessary unless it were decided to retain the ESTC (UK) system, adopted in the late 1920's, or even develop an entirely Australian one. As signatory to IMCO conventions Australia had recognised the adoption of the UN System in the commercial field in the early 1970's and the States had all legislated for adoption to govern the commercial operations by 1978.

In Defence, the question of whether to adopt the UN System, and if so whether to develop in-country documentation or adopt that already developed by another country, was debated at length, the lead being taken by the Explosives
Storage Committee of the Australian Ordnance Council. The ESC was a natural forum for the debate because membership is drawn from the ammunition supply, maintenance and user areas of the three Services, Defence Science and Technology and the Departments of Productivity and Transport.

After detailed comparison of the documentation available from the UK, the US and NATO it was decided to recommend to the Service Chiefs that the system documented by the ESTC (UK) be used as the basis for introducing the UN Recommendations into the Defence Force. The ESTC documentation takes the form of a series of leaflets, each dedicated to a specific aspect of storing, handling and transporting explosives, (e.g. Leaflet No. 5 is concerned with quantity-distance). The leaflets are known collectively as the 220 Series and have been made available to the Australian Defence Forces under aegis of the UK Ordnance Council. Not all the leaflets are relevant to Australia and indeed some will require to be completely reproduced here, in particular, Leaflet No. 3, which is a listing of the complete UK inventory by explosive classification.

**Australian Implementation of the UN Recommendations as Interpreted by the ESTC (UK)**

The changeover from the old ESTC (UK) system now in force, to the ESTC (UK) system based on the UN Recommendations will take many years. Many major activities have to be undertaken. A change to using the new system to govern the transport of explosives will be the first step encountered at the user level; this should be accomplished within the first two years.

The first major step is to reclassify the existing inventory into a new system — fortunately not a difficult task because it has already been completed by the UK and the US and details of their reclassifications are held by Defence. In the case of Australian manufactured items analogies will almost certainly be found. In parallel with the reclassification task, supplies of new explosive labels will be obtained and on a date to be agreed between the three Services, Department of Productivity and Department of Transport, the change can be implemented. It is almost certain that for the first six months of the changeover, dual labelling will be used to enable all concerned to get used to the differences between old and new.

Reclassification and the use of the new labels is the tip of the iceberg as far as store depots are concerned; for them, the complete changeover to the new system will be a major evolution — which will not be completed for many years in some instances. All depots and any other permanent explosive storage buildings will require to be re-assessed for storage capacity in the light of the new rules; a difficult and time consuming task. Eventually, as a result of this survey, every building containing explosives or authorised for that purpose will have to be relicensed. When the new storage limits have been calculated, (and they will be significantly reduced in some locations because the new rules require greater separation between explosive buildings), a new storage plan for each depot will have to be drawn up taking account of the new building limits and the revised classifications of the explosives to be stored. One outcome of this evolution will be the development of requirements for new explosive buildings to replace those no longer suitable, or to increase overall capacity to a viable level to compensate for reductions in capacity. It will not be until all new construction resulting from implementation of the new system has been completed and taken into use that it will be possible to say that the system changeover has been completed.

**Legislation**

Current planning is that the introduction of the UN System will require that the present Commonwealth Explosive Act (1961) be redrafted and re-enacted. This in itself will be a difficult task because one of the schedules of the Act requires a complete listing of the service inventory.

**Training**

It is obviously a pre-requisite of the requirement to adopt the UN system that all concerned with the handling, storage and transport of explosives be made aware of the changes to be adopted and where necessary given formal training to ensure that they are capable of understanding and implementing the system. Action is already in hand in the Services to run appreciation courses and where necessary detailed ones. The Commonwealth
Explosive Transport Committee has prepared a booklet for use by all concerned highlighting the differences between the current and new systems. Each Service has also produced documentation to assist the introduction of the new system; documentation has been made available from Service sources in the UK to augment this.

CONCLUSION

Australia, in common with most western and non-communist countries, is in the process of changing the rules which have controlled the storage, handling and transport of explosives since the 1920's, albeit with considerable updating derived from experience gained during and after WW II.

A system of classifying explosives by hazard and compatibility originally developed by an UN Committee as a means of smoothing difficulties of world trade caused by conflicting national requirements has, after amplification to cover storage, been adopted by NATO for use by all countries in that alliance.

The UN system has already been adopted by the States of Australia to meet commercial needs.

The Defence Force after examining a number of overseas systems based on the UN recommendations has decided to implement the system adopted in the United Kingdom which is documented in the Explosive Safety and Transport Committee (UK) series 220 Leaflets. It is anticipated that implementation to a stage where all transactions are conducted under the new rules will be reached by 1984. Full implementation, which could involve construction of new explosive storehouses is unlikely to be completed for at least a decade.

The benefits of the new system are that it is internationally recognised in both commercial and military fields and is in process of adoption by all NATO forces. The system, in its recommendations, represents the accrued knowledge of world experts in the field and as a result, increases the safety of both those involved in the storage, handling and transport of explosives and the public at large.

BOOKS IN REVIEW

The following books reviewed in this issue of the Defence Force Journal are available in various Defence libraries:


By Lieutenant Colonel Oliver Lindsay, 
Grenadier Guards

After the sudden and unexpected surrender of Japan in August 1945 the allied navies were faced with a difficult task, the story of which has gone unrecorded — perhaps because no representative of the press was present. During the war in the Far East the Japanese sent many allied POWs to Japan as slave labour where many suffered from serious malnutrition and brutality. The POW’s rapid liberation and evacuation was the greatest urgency.

Plans had been made for British Commonwealth personnel to be sent from Britain and Australia so that contact could be established with their fellow countrymen in the POW camps as soon as possible. However peace had come so quickly that the liberation teams had not arrived. It was decided to use instead ad hoc volunteer teams from the Royal Navy and Royal Australian Navy.

The British Task Force which was operating as part of the American Third Fleet when hostilities ceased was quickly dispersed between the coasts of Japan and China, including Hong Kong, Shanghai and Formosa.

American B29’s flew over many POW camps parachuting supplies to the POW’s, but making contact on the ground was a more difficult matter; the location of some camps was unknown and the behaviour of the defeated Japanese could not be predicted.

When the Allied Fleet anchored outside Tokyo Bay the first allied POWs to be repatriated were a Royal Marine and a British soldier. They had escaped and attempted to swim out to the Fleet and were picked up by an American patrol boat. Landing parties of American and British sailors and Royal Marines went ashore to occupy key points. They were greeted on the beaches and jettys by some POWs who had fled from their camps in the Yokohama and Tokyo area.

Eight volunteer teams each of an officer and rating were disembarked from HMS George V and HMAS Shropshire to join American teams with orders to make contact with the POWs. And what did they find? What were their impressions?

Lieutenant J P Stevenson and Able Seamen P Cotton both of the Royal Australian Navy were among the first to reach a POW camp ten miles from Nagasaki on 11 September 1945. They were given a splendid reception by the POW’s who told them horrifying stories of their experiences. In the camp were 150 Dutch and 13

British, but, ironically, 26 Australians had earlier left on their own accord to 'find MacArthur'. “Some of the POWs had been working in the Mitsubishi steelworks when the atomic bomb exploded almost immediately overhead”, reported Lieutenant Stevenson. “They saw a blinding blue flash and then dived for cover while the building, engulfed in flames, fell amidst them. Of the fifty there, only nine were killed but many were badly burnt and several are not expected to survive”. Two days later the two Australians found twelve elderly British couples and twenty-three Catholic nuns in an inaccessible internment camp. “They were weak from lack of food,” Stevenson noted. “But in their delight at seeing us they insisted on giving us a cup of tea and the luxury of cake which tasted like very dry sawdust.” One English couple and most of the nuns refused to be evacuated.

On 8 September another Australian contact team consisting of Lieutenant D R Stewart and Able Seaman L Cullig of HMAS *Bataan* came across three hundred men of 9th Battalion Northumberland Fusiliers. “These men gave a magnificent display of discipline and fortitude,” wrote Lieutenant Stewart. “They fell in and moved off with all the regimental smartness that there weakened physical condition would permit. We congratulated their commander, Captain Thornehill from Newcastle, who told us that fifty minutes of drill had been conducted each day since the surrender so that they might be able to accomplish this.”

The contact teams found the Japanese helpful and friendly. POWs were questioned as to which of their captors had committed atrocities. This gave those POWs from Kamaishi camp something of a dilemma because their Japanese commandant had made the POWs use a trench in a very exposed position during the allied bombardment while safer positions were available. “The whole of their camp was burned and the trench was a complete blaze causing six deaths and many injuries,” Lieutenant Stewart was told. “However when the commandant saw the inferno he displayed much bravery in rescuing the men by going into the fire in a blanket soaked in sea water.”

Gradually all the ex-POWs were taken aboard American, British, Australian or New Zealand ships. HMS *Wizard*, commanded by Lieutenant Commander P. Hodgkinson, warned his ship’s company “not to collect around ex-POWs and worry them with questions, so that POWs — now termed passengers to dispel the prisoner complex — were initially segregated.” However many ships’ crews were surprised to discover that the passengers were only too anxious to relate their stories of atrocities. Indeed there was difficulty in persuading some of them to look to the future rather than dwell on the past. “My chief impression of the passengers to whom I talked was of their magnificent *esprit de corps* and pride in survival”, reported Lieutenant Commander Hodgkinson. “It had become a point of honour amongst them not to die. They had been robbed of any possible pride in personal appearance, and had been humiliated and degraded for four years. The only thing left for them to revere was their own endurance, and they had settled down to stick anything out.”

Meals were laid on fairly continuously and HMS *Wizard*’s total supply of bread was made into extra large jam sandwiches which were quickly devoured. Two Argyle and Sutherland privates looked rather wistfully at the ship’s cat, and told Lieutenant Commander Hodgkinson that a fortnight earlier “it couldn't have got twenty yards with its fur still on.” Some passengers ate their way completely through three meals in quick succession. “An atmosphere of physical and mental lethargy was in evidence,” remembers Captain J Armstrong of HMS *Ruler*. “It was therefore decided that a little daily physical training was desirable and it soon proved its value. The wheelbarrow race was a notable success — all ex-POWs agreeing that trundling a wheelbarrow was something at which they had reason to regard themselves as distinctly expert.”

Several of the ships' captains remarked that very few of the officers and NCO's seemed to carry any weight, partly because their authority had been purposely undermined by the Japanese, and also because imprisonment seemed to create a mentality where there was a reluctance to accept responsibility or make decisions. Some officers were unwilling to take charge of their men and preferred to leave all the arrangements to the ships' officers.

HMS *Ruler*’s crew were expecting to carry 50 officers and 400 other ranks and so they were surprised to discover they were responsible for a party ranging from senior colonels on the one hand to Chinese babies on the other, and in-
cluded African negroes, Baptist missionaries, Indian school-teachers and some Asiatics. A number of unexpected problems arose — "husbands who wished to be re-united with their wives; wives who did not concur; whites who preferred to live on a messdeck containing blacks rather than to be transferred to one containing whites, (imprisonment having evidently taught them that some blacks are to be preferred to some whites). The passengers were, without exception, most helpful, willing and co-operative, and their gratitude for anything that was done for them was pathetic", reported HMS Ruler's Captain. "The realisation that they were at last among friends, and their special joy in finding themselves in a British warship, was most evident. One lady went so far as to describe the wardroom as 'just like fairyland', a description which has not previously been heard in this ship".

The cheerfulness, good humour and energy of the ships' crews defies description and their generosity was unbounded; it was often difficult to prevent them giving away the whole balance of their canteen funds.

"At 1805 hours on September 6th I received a signal from King George V to pass close to her," reported the Captain of HMS Wizard. "All passengers were asked to gather on our starboard side and, in the dusk, they saw and heard the King George V's crew manning the side and cheering them. The effect it had on the passengers was tremendous. They did not know whether to yell or weep, and most of them did both. It was a great finale to what must always be the happiest day in their lives." Their long journey home under the White Ensign had begun, and it was the privilege of British Commonwealth ships to carry them. 

CONTAINED TERRORIST INCIDENTS IN AUSTRALIA:

POLICE OR MILITARY PROBLEM?

By Major C. O. G. Williams, Australian Intelligence Corps.

IN THE general euphoria that followed the London SAS operation against the Iranian Embassy, it was assumed by most observers that the philosophy involved could be extrapolated to Australia. This article examines counter-terrorism response in Australia, its background, and its relevance to a British model.

Many of the responses taken to date have their basis in the Mark Report. The report's principal recommendation was for the creation of the Australian Federal Police (AFP) from the A.C.T. and Commonwealth Police Forces. The report also proposed a number of responsibilities for the AFP. These included:

- the co-ordination of training and the provision of support for counter-terrorist activities;
- Special Branch duties within Commonwealth territory with a headquarters central coordinating and liaison unit with all Special Branches (including State ones) and other federal agencies;
- the escort of VIPs; and
- the policing of airports.

It recommended that the AFP establish a small anti-terrorist squad in Canberra with anti-explosive and sniper capability. (Mr Justice Hope's follow-on report, the Protective Security Review (PSR) did not pursue this latter recommendation). Sir Robert found that Australian counter-terrorism contingency plans had no detailed provision for invoking military aid nor the type of military aid which might be available, nor for that matter the ways in which aid provided might be utilized. His two principal concerns were that such military aid be limited to specific tasks, appropriate to those tasks, and that government keep the public properly informed of the purposes and limits of such aid — in order to alleviate any public disquiet. But he suggested that: "...the close quarter battle is a task for the most sophisticated soldiery, not for police whose role should be containment until military aid arrives" — Precisely what we saw in London during the Princes Gate siege.

In London, Britain's highest risk area for terrorism, there are three non-military groups that can be called upon in the case of a terrorist incident. The Blue Berets of D11 (the Firearms Department), the C13 Anti-Terrorist Squad of Special Branch, and the presently controversial Special Patrol Group. Although all are trained in the use of firearms — none have an assault capability. If an assault is required, there is no alternative but to call on the SAS. In fact the sequence of events leading to military resolution of an incident in Britain is facilitated by the lack of a written constitution which allows the use of the SAS without 'call-out' procedures. This is not the case in Australia and it is at this point that the paradigm becomes less relevant.

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Major Williams graduated from OCS in December 1964. He served with TRAR in Vietnam, attended Chinese language training, and has since served, among other postings, in Hong Kong and as exchange instructor at the U.S. Army Intelligence Center and School in Arizona. He is an Honours graduate in Political Science from the University of Melbourne and has recently completed an MA in Criminology. He has previously contributed to the Journal. This article first appeared in Stratagem.
Although the assumptions made by Sir Robert about policing in Australia based on British experience were carried through into the PSR, in fact there are very real differences between the two forces. Australian police are commonly armed in their day to day duties, indeed in the NSW Police, personnel normally carry weapons at all times, and police here have traditionally been armed forces. Crimes with firearms are common and many police officers are experienced in the use of arms in violent situations.

It is not surprising therefore that the American SWAT (Special Weapons and Tactics) concept of deploying a trained negotiating team with a police assault group to violent incidents struck a responsive chord with Australian police forces. All State and the Northern Territory police forces now have similar groups: Victoria has SOG (Special Operations Group); South Australia, STAR (Special Tasks and Rescue); NSW the Special Weapons and Operations Squad and so on. Some are part-time and based on Armed Offenders Squads. Surprisingly, the A.C.T. does not have a full-time, dedicated counter-terrorist group even though Canberra contains many high risk targets, both diplomatic and political. (There is the further consideration that foreign countries would be unlikely to allow a non-police Australian counter-terrorist group to operate overseas on their territory in the case of an incident involving Australians. The A.C.T. based AFP is the obvious force to provide such a group.) The general point though is that most Australian Capital cities are now well served by ‘SWAT’ groups that have no equivalent in British policing.

It has been reported that the Federal response to a contained terrorist incident would come from the SAS’s TAG (Tactical Assault Group), based in Perth but with a mobile component. In the case of an incident anywhere in Australia the first response will normally come from the police. If the incident is in a State, call-out procedures would be required before the TAG could be employed. (Call-out procedures are not legally required for the A.C.T. or the Northern Territory, but would be instituted on the advice of the Attorney General) Call-outs would only be initiated at the request of a State or Northern Territory government. The only exception to this rule appears to be the A.C.T. (Federal Territory), where the situation is obscured by the continued existence of the old A.C.T. Police Force’s Armed Offenders Squad, an embryo AFP counter-terrorist squad following Sir Robert Mark’s recommendation, and the occasional contingency presence of the SAS. (In the case of an incident on Federal land within a State the AFP would hand the incident over to the State Police on their arrival in sufficient numbers to take control).

The State Police have the resources in most urban areas to provide adequate support to a SWAT group in most conceivable circumstances. In addition the States have access to the equipment of the State Emergency Services. There are undoubtedly situations which go beyond the physical or technical capacity of the police. These might include a tactical battle in a State forest, protecting a large area such as an airport, situations involving large/remote areas or areas outside police control (for example, offshore), or situations demanding special expertise or equipment. These are generally not tasks for small assault groups, civil or military but for large numbers of, or specialist, Service personnel.

It is often assumed that the type of terrorist incident most likely to be encountered in Australia by both police and military is the siege-hostage or barricade-hostage situation. In fact, this type of politically motivated incident is now less likely, confirmed both by CIA data and a recent Rand publication. Last year there was only one terrorist siege-hostage incident in a liberal democratic state and so far this year (July) again only one. Kellen of Rand has analysed interviews with five terrorists and it seems that ‘professional’ terrorists (the most dangerous threat) no longer see siege-hostage incidents as viable in view of the hard-line responses of Western governments. Far more likely are the equally symbolic and news-worthy remoted incidents: bombings and arson; or shootings — all of which have the added advantages that they can be acknowledged if successful/disclaimed if not, while perpetrators are less likely to be apprehended.

The general level of terrorist threat in Australia is low. There have been no foreign based terrorist incidents in Australia, and with the exception of the Vietnam War period very few incidents directed against the Federal or State governments. Nor is there evidence of any
recent development of national terrorism* in Australia. The most common incidents are interneeces within the Yugoslav Community, or ones directed against foreign governments represented in Australia. The likelihood of foreign based incidents remains low, in part because of Australia’s positive responses to the Palestinian question and status within the Third World, but principally because of Australia’s geographic isolation.

Police are of course frequently involved in siege-hostage situations of a non-political nature: criminal, if a crime miscarries; or ones perpetrated by the mentally unbalanced. It is generally accepted that there is no military role in such incidents. Police extend the argument by rationalizing that all terrorist acts involve what might be called ordinary crimes — murder, kidnapping, assault, malicious damage and so on, and that the appropriate objective for government is to bring them to justice — this being a civil matter and essentially a job for the police.

Another question that seeks consideration is the legal application of violent force in peace-time. Some critics consider the use of police in counter-terrorist roles to be in conflict with the police tradition of maximum use of force. On the other hand it may be, in a liberal democracy, as Sieghart observed — the difference between the policy and military is not simply one of appearance, but goes to the essence: the job of a soldier is kill the Queen’s enemies in war-time; that of a policeman is to protect the Queen’s subjects in peace-time. This is a long standing view. “An armed disciplined body is in its essence dangerous to Liberty: undisciplined it is ruinous to society” said Edmund Burke in 1815 (in reference to the use of the army on civil matters). Elsewhere, as in France, the Conflict between these principles has led to the establishment of a Third Force or Para-Military Force. There is no Australian precedent for such a force. (A persuasive argument against establishment of a Third Force has been presented by Clutterbuck).

Major Groves in a Queenscliff paper titled ‘Para Military Forces’, stated ‘... those who advocate the willy-nilly use of the military in low level operations should also be prepared to attempt the reconciliation of the opposing, fundamental principles of minimum and maximum force. In essence, the nature of a force required for an anti-terrorist role is different from that of the armed forces. Moreover its training and philosophy are more akin to those of police forces than those of armies’.

The conflicting maxims on the use of force are exemplified on the one hand by the SAS raid in London and on the other by the SWAT definition of ‘success’ provided by Miller. In London all terrorists but one were killed; several allegedly while attempting to surrender. Successful resolution of a SWAT incident is defined as one ‘terminated without loss of life to the police, perpetrators or victims’. There is little doubt which will act as a greater deterrent to terrorists. But the creation of martyrs or ‘military prisoners’ may lead to claims of legitimacy in international forums.

There is no doubt that the employment of troops on civil matters may be justified in law as Reaburn has indicated, but as he emphasized in another article, there are grey areas concerning the legal powers of the military when called out and its powers in different states. The Commonwealth, he suggests, needs to enact new legislation to ‘... release military personnel from the threat of liability for actions which were both reasonable and necessary’. The legal position of a military assault group that employed greater than minimum force is not clear and would presumably be left to the courts to decide. Soldiers are trained in the use of concentrated force. During a terrorist incident they may be granted the powers of a police force dedicated to the minimum, or necessary and sufficient, use of force. And when the incident is concluded they will be judged by standards of ‘reasonable’ force. Although it may be that reasonable force is greater than minimum force, a doubt remains. Prosecution of soldiers on counter-terrorist operations in Northern Ireland has created both legal and moral controversy.

There is undoubtedly a role for TAG as the ultimate sanction of force available to the Federal Government, but the point at which TAG should be employed is problematic. As indicated, the likelihood of either professional overseas based terrorism or a terrorist siege — hostage situation occurring here is statistically remote. Police SWAT forces are in frequent use for the apprehension of armed criminals, VIP escort, and terrorist-like civil incidents, and

* Terrorism which does not transcend national boundaries in the carrying out of the act, the nationalities of the victims or the resolution of the incident.
they will undoubtedly be keen to resolve most terrorist situations within their own resources. Certainly, there seems to be little doubt among police forces that they will be able to cope with any ‘home-grown’ incident. However, in the final analysis, the decision on which assault force to use will be one for State and Federal Ministers, and may ultimately be a political (or financial) one divorced from the issues discussed here.

NOTES
2. Ibid. p 24
6. The SWAT concept grew out of the Watts riots of the mid-1960s. Some U.S. police forces have negotiators as part of the SWAT group, others as a separate team. For a useful article see Abraham H. Miller, ‘SWAT (Special Weapons and Tactics) — the Tactical Links in Hostage Negotiations’ in Yonah Alexander and Robert A. Kilmarx (Eds), Political Terrorism and Business: the Threat and Response, Praeger, New York 1979
7. The Canberra Times, 26 May 1980, p 3. TAG may only be employed in response to an ongoing incident. Call-out is not possible in the face of a threat.
8. Based on conversations with State Police officers.
9. See The Canberra Times, 26 May 1980, p 3. An SAS team was reported to have been deployed to Canberra during the Queen’s visit of May/June 1980.
12. During the period 1963-1978 there were 85 politically motivated incidents involving explosives or arson in Australia. Few perpetrators have been convicted. Data from Mr Justice Hope, Op Cit., pp 311-313.
17. Ibid, p 66.
20. The claim of terrorists to be ‘prisoners of war’ with special status is a common one. It has been exploited very effectively by the IRA, in particular.
23. Ironically, by shrouding its activities in secrecy, the Federal Government is degrading the SAS’s most important role — as a deterrent.

Reviewed by Wing Commander Peter Rusbridge, RAAF

The author of a book does not normally invite his readers to consider whether or not the book was worth writing in the first place. So, Professor Wise’s invitation is a revealing indication of the doubt in his mind—a doubt which I understand but do not share.

‘Canadian Airmen and the First World War’ is the first in a four volume series of the official history of the Royal Canadian Air Force. There are well over 700 pages in this volume. To be doubtful of the worth of such a weighty tome is indeed a misfortune if one happens to be the author.

The cause of any doubt stems from the fact that Canada did not organize an Air Force during the World War I. The very significant contribution that Canadians made to the war in the air was the sum total of efforts by individuals serving in the Royal Naval Air Service, the Royal Flying Corps and, subsequently, the Royal Air Force. Furthermore, British policy was not to identify nationalities serving in their armed forces. This policy created difficulties in tracking down the exploits of Canadian airmen. Not only did the historian not have a coherent subject, he had no data base, either.

Nevertheless, in the broader context of the four-volume series, something obviously needed to be written to cover the period during which military aviation grew from infancy to puberty.

Professor Wise was the Director of History at the Department of National Defence in Ottawa when research into this history was begun. He and his staff had many intense discussions during work on the book. As a result, Professor Wise has organised this first volume in order to illuminate three themes. These are, first, a description of the course Canadian air policy took which precluded the formation of a national air force; secondly the background strategy during the war which governed the environment in which individual Canadians flew; and lastly, the record of service and achievement of at least 13,000 Canadian airmen.

For Australian readers, potentially the most interesting theme is the first one. The Canadian indecisiveness on the issue of a national air force is most striking in comparison to the confident and assertive decision by the Australian Government to launch the Australian Flying Corps and to send it to war. Even more intriguing is the ambivalent atmosphere of lukewarm nationalism in Government and in the upper bureaucracy of the Canadian Civil Service which allowed such indecisiveness to flourish.

Even the ordinary Canadian citizen seemed indifferent to the inability of Canadian airmen to draw upon the inspiration of their national identity in order to sustain themselves in what were most hazardous operations.

Only through a prolonged press campaign towards the end of the war, together with the suspicion that the Canadians were being discriminated against by the British in such aspects as promotion and command, did public pressure finally grow enough to result in the formation of two squadrons in the RFC/RAF entirely manned and equipped by Canada. Only the aircraft were supplied by the British.

One can argue that for Canada to fail to assert its nationality like Australia did was somehow to lack essential national dignity and hence to forfeit the respect of others. Yet, apart from the issue of the morale of individuals involved, such an argument would be almost exclusively emotional. Professor Wise describes the progress of aspects of aviation, other than operations alone, in terms which make one think seriously about whether or not Canadian aviation did compare adversely with Australian aviation in the World War I.

The air war escalated so rapidly that the United Kingdom soon found herself very short of trained manpower. In addition to Canada’s refusal to form her own air force, this shortage represents the other major cause of so many of
her young men joining the British service. In place of an air force, the Canadian Government consented to the RFC operating a very substantial training command in Canada known as RFC Canada.

This organization was wholly British, reporting to the War Office in London. However, the Canadian Government gave a measure of practical support by providing financial assistance for aircraft construction plant and for other facilities. Of course, the vast majority of the 12,000 personnel involved in RFC Canada at the armistice were Canadian.

At the conclusion of hostilities the Canadians had acquired a capacity and capability which could build and had built aircraft, which had overhauled some 1300 aircraft engines, which could undertake almost total local manufacture of aircraft engines and which could rebuild crashed aircraft at the rate of 130 per month. One could argue that to acquire such experience and facilities at what was a modest cost represented a very astute investment. Subsequent volumes of this history may reveal how much today's Canadian aircraft industry owes to these sound beginnings.

On the other hand, the Australian Government concentrated on the raising of national squadrons, clearly identified as Australian. Australia began the war with an aviation capability very similar to that of Canada. At the end of the war, however, Australia was left with a corps of men with operating experience certainly, but with no infrastructure to back them up. By February 1919, each of the three AFC squadrons in Europe had handed over its aircraft and stores and departed for Australia. The original intention at the formation of No. 1 SQN AFC was that Australia should pay for the aircraft and stores and retain what was left unused. However, the war lasted longer than expected, and at the Armistice, all equipment held by Australian squadrons was returned to the RAF in lieu of payment. It seems to me that Australia was the loser by comparison in this arrangement.

Other major influence on Canada's aviation policy were the erratic decisions of a rather enigmatic Minister for Militia and the eminence grise of the Imperial Military Establishment. Although Canada had been nominally independent for decades, there seems to have been an atmosphere around in Ottawa of 'Mummy knows best'. Perhaps Mummy did know best, but like all Mummies, she was not above occasionally arranging her affairs more to her own advantage rather than to that of others.

One can detect this influence at work, incidentally in Australia during the same period. Despite the Commonwealth Government's firm policy of not encouraging Australian servicemen to apply for commissions in the British Army, circumstances eventually proved too strong for them. As a result of the British aviation manpower crisis, the War Office asked all Dominions to allow national NCOs and other ranks to apply. Despite the fact that it was against their policy, and despite their decision to form national squadrons, the Commonwealth Government acquiesced, like Canada did.

For the historian, I should imagine that the story of the gradual disengagement of Dominions from the mother country after the formal granting of independence should be a fascinating field of study. The recent history of both Canada and Australia indicates that this disengagement is not yet complete. However, I digress.

Professor Wise's second major theme — the background strategy of the air war is much less successfully illuminated.

A contemporary assessment of Allied aviation strategy during the first war is perhaps worth a book on its own. However, injected into a history of Canadian Airmen, as a form of scenery to give meaning and form to their exploits, it sits rather oddly, neither one thing nor the other. The author really had a problem here. He could not merely parrot the judgments of others on such an important subject, and yet, to research independently the necessary raw material must have been a daunting task. Nevertheless, he obviously felt it necessary to provide a context for his third theme, and in this I sympathise.

In the event, he seems to have chosen to do most of his own research, returning to original archival material, including reports by such people as Trenchard, Henderson and Haig. Some of his research is most interesting, reflecting a rather different view of Trenchard's adherence to the doctrine of strategic bombing than Trenchard himself bared to public view.

Sir Walter Raleigh, in his volume of the History of the War in the Air attributes to
Trenchard a much more consistent view of the need for strategic bombing than that indicated by Professor Wise. The author shows Trenchard to be less of a visionary or prophet and more of a pragmatic operator, whose views changed as the circumstances did, and whose role was more that of a convert to strategic bombing rather than of a proselytizer.

However, this background is usually about people who were not Canadians and who did not have Canadian interests at heart and about policies which, although of vital interest to Canadian airmen serving in the RFC, nevertheless were of negligible import to the nation as a whole. Consequently, the result is only partially successful, not really doing justice to either a modern view of the strategy or a context for the exploits of individual Canadians.

Professor Wise's third theme is, I am sure, the main raison d'être of the book. It is probably the part which caused him his doubts on its overall worth. How can one write a succession of potted biographies about a host of individuals without seeming like a veritable war memorial?

There are several memorable passages on this third theme in which the incredible heroism of some Canadian airmen stands out in heartwarming inspiration. However, much of the text is, frankly, a dreary succession of names with no more inherent interest than that stimulated by the average history book. As a result the book is very difficult to read when discoursing on this theme.

Yet, despite this drawback, one cannot help speculating on the debt owed to the men whose deeds are recorded on these pages. The magnitude of the sacrifice by thousands of participants in that monstrous way ultimately enables and dignifies the human spirit. We need to be reminded of such things, not in order to start bigger and better wars, but in order to gain inspiration and insight into the true meaning of Service.

These forgotten Canadian airmen are fortunate in that Professor Wise and his staff have had the perseverance and strength of purpose to set a very large record straight for posterity. However, this book is not easy to read. I understand the author's doubt, but in the end I can assure him that it is a book that was certainly worth writing and ought to have been written, perhaps long ago.


Reviewed by Mr T. Miller, Department of Cartography, Bruce TAFE.

THERE will be many students of cartography and allied sciences who will welcome the publication of this book.

The Author has opted for a layout where projections are grouped according to their common characteristics rather than their projection surfaces. An example of this is chapter 2 where we find equidistant projections such as the plate caree (cylindrical) is associated with the conical equidistant and other conical projections.

Apart from the novel layout, the author has also included an appendix of programs for pocket calculators which will be of use to readers who do not have access to a computing facility. He gives programs for both HP25 and TI SR-56 calculators, both of which are readily available in most organizations. The HP25 programs are for the Albers, the Oblique Stereographic projections, and the Hammer-Aitoff projections. The TI SR-56 program, with variation to a block of steps, will give plotting co-ordinates for any of the five aximuthal projections covered in the book.

Of particular interest to servicemen is the section dealing with the universal Tranverse Mercator projection. This is the projection adopted for standard topographic mapping in Australia at scales of 1:250,000 and larger, such as the 1:100,000 series. The complex mathematics required for this projection are beyond the scope of this publication. However, a clear description of the projection, its origin and properties is given. Convergence from grid north to true north is covered briefly, with one example of its calculation given. The statement that its (convergence) seldom exceeds 3° in this projection needs to be reworded to explain that it can only exceed 3° if the point in question is over the zone boundary. Also, it would be well for Australian readers to note the tables for the projection have been prepared by the National Mapping Council and are published by the Australian Government Publishing Service, Canberra.

Chapter II is devoted to map construction techniques, and whilst basic, they should prove useful to the amateur map maker. Some of the
equipment illustrated would, however, be seldom found outside a map drawing office.

I believe that this book will prove a most useful aid to any person who is involved with the use and production of maps. It offers a no-nonsense approach to the topic, the mathematics one kept simple, diagrams are clear and well drawn and a brief but useful table in a number of projections, their properties and uses is included.

RETHINKING AUSTRALIA’S DEFENCE,
Ross Babbage, University of Queensland Press, 1980, 312p, $25.00

Reviewed by Major G. L. Cheeseman R. A. Sigs.

When reading Ross Babbage’s Rethinking Australia’s Defence, one is reminded of Donald Horne’s incisive portrayal of Australia’s position in world affairs in his book Death of the Lucky Country. Australia, Horne argues, has been lucky up until now because it has been able to rely on the experiences, legislative procedures and political expertise of its large and powerful friends. The recent decline of the age of manufacturing however has signalled the beginning of the end of Australia as the lucky country. Trapped by their increasing integration into a declining world economic order, and governed by a ‘second rate elite’ which owes its position and status to ‘its bigshot northern hemisphere friends’, Australians will begin to see in whose favour the various relationships with our friends are tilted and just how hard it will be to adopt any ruly independent, national stance.

The past reliance of Australia on the United States for much of its defence thinking and the difficulty we will experience in moving from this dependent perspective towards a more self-reliant posture is an important theme in Babbage’s book. The need for change is based on the view that the altered strategic role of the United States in the wake of its failure in IndoChina and the continuing developments in conventional weapons technologies have undermined Australia’s past rationale for forward defence, cast doubts on the provision of American military support under ANZUS and made obsolete much of our current military doctrine, equipment and tactics.

For Babbage, these fundamental changes mean that Australia must now develop its own capacity to defend the Australian continent and its maritime surrounds against a much broader range of threats and pressures than has been required in the past. Our ability to do this however is limited by a number of major weaknesses in Australia’s existing planning procedures and force structures. These weaknesses include inadequate strategic guidance, poor mobilisation capacity, an over-dependence on allied intelligence, an inappropriate communications, command and control (C3) framework and an inadequate domestic industrial support infrastructure.

In view of such widespread deficiencies, Babbage argues, there is only one answer to the problems of Australia’s defence: begin again. “Nothing less than a fundamental re-examination is required if Australia’s national security is to be viable in the years ahead.” The last part of Babbage’s book describes in broad outline how such a reappraisal should be carried out and explores a number of specific options which could be considered in such a process. His proposal broadly involves devising a number of strategic and force structure options which meet Australia’s perceived national security goals and testing these against a “representative and agreed set of scenarios”, taking into account budgetary and other domestic and international constraints. The finally selected option would form the basis of Australia’s revised defence posture with its associated force structure, major equipment types and strategic and tactical doctrines.

While this kind of rational approach has considerable merit in theory, in practice the comprehensive and fundamental changes that are being proposed would result in them being opposed by an extraordinary array of pressure groups and power-holders. Apart from bureaucratic resistance, which is dealt with in some detail in the book, any attempt to restructure Australia’s defence forces would run counter to the ego-investments and traditions of the three services, a reassessment of Australia’s security links with the United States would threaten the power base of the Australian intelligence community and the requirement to agree to specific threat scenarios and adopt a single defence posture would require politicians to make long-term decisions which may be inimical to their short-term political interests.
The real value of Babbage's book however is not in its proposed methodology for implementing change but in the reasons why change should occur. In Rethinking Australia's Defence, the author presents a clear and concise description of our changing environment and he provides a logical and compelling case for Australia adopting a more independent defence posture. This requirement for greater self-reliance is even more important today where the strategic and political imperatives of our changing relationship with the United States are resulting in Australia being integrated more fully into the American global nuclear network. This increasing dependence is occurring at a time of rising American militarism and heightened tensions between the superpowers. If we are not careful, it will result in Australia becoming increasingly vulnerable to the consequences of events and circumstances over which we have no control.

The changing nature of Australia's relationship with her major ally will also serve to reinforce the opposition to any changes in Australia's defence or foreign policies. Given the necessity for change, the question becomes how can it be initiated? If the answer lies in first raising the awareness of the Australian people to the problems involved in rethinking Australia's defence and its implications for Australia's future, then Ross Babbage's thoughtful and timely analysis represents an important first step.

BLOODY PROVOST by R. A. J. TYLER, PHILLIMORE, GREAT BRITAIN 1980 $7.95, 245 pp. Reviewed by Brigadier M. Austin (RL)

No doubt many will have memories of the phrase — The Bloody Provost — made with many inflexions and emphasis, usually connected with the untimely arrival of the Royal Australian Corps of Military Police to put an end to some unseemly activity. The author however dates the phrase to incidents following the Battle of Talavera, although reviewing the long sanquinary history of the Provost Marshal and his assistants he has good reason to apply the term in its full meaning both prior and after the first recognisable appointee to that office in 1511.

The early chapters trace in detail the development of the law enforcement agencies and their rise to the fearful position of power where Provost Marshals were almost above the law with powers of summary execution. That reign of terror is traced from 'days of old' 'when knights were bold' through the Tudor and Elizabethan period, and early Irish history up to 1900. Although many historians would perhaps be more objective in their approach to events in that unhappy land of excesses, nevertheless there is some connection with Australia, since many disaffected Irish from the '98 were transported and were later involved in the Castle Hill rebellion.

The story is further developed through the early Stuarts to George IV, and in India from the late 17th century to the late 1800's when there were upwards of five battalions of military police involved in numerous minor wars, although by this later period the grisly Mutiny practice of execution by 'blowing away from guns' appears to have been abandoned.

The gory tale concludes with a discussion of developments in Europe from 1802 to 1818, followed by the birth in 1855 of the present Corps of Royal Military Police as we now know that worthy body, and its use in minor campaigns and the Boer War. The author hopes to follow the story up to 1976 in a subsequent volume — 'Bloodied Provost'.

This book is full of surprises. Few would know that the Black Watch was the first military police corps, and that their activities gave rise to the term 'blackmail', or that 'running the gauntlet' was still in vogue in 1946. Likewise the brief description of the Corps of (Mounted) Guides, Royal Staff Corps and Cavalry Staff Corps (Mounted Police) is of interest to Australian readers since these Corps play a minor role in our early history.

There are a few minor errors. The Secretaryship of War and the Colonies was split in June 1854, and the Board of Ordnance was abolished the following year. These reorganizations had been discussed for many years, and did not come in the aftermath of the terribly mismanaged Crimea War.

Major Tyler is to be congratulated on a fine detailed story of the Corps of Royal Military Police and its predecessors. Written from the point of view of the general reader it does not give any detailed references, although a full bibliography is included. Nevertheless the general reader may find the amount of detail provided hard to digest, while the lack of some
references will inhibit further academic research into 'this important part of our constitutional history'. While outside the main theme, the evolution of curbing the summary power of the Provost Marshal and his assistants, and bringing them within the law could perhaps have received more detailed treatment.


Reviewed by Greg Austin, Dept. of Defence

While this book provides a useful and concise treatment of the numbers/capabilities at issue in SALT, it fails to discuss adequately the various strategic and political concepts and issues which flow from them.

To the USSR, strategic superiority is what allowed the US great freedom of action in political and military policy throughout the world in the 1950s and 1960s. The Soviets saw US strategic superiority as providing the US with the option to threaten nuclear destruction of any country (when none possessed a credible nuclear retaliation capability) that challenged US policies by military action. In the Soviet view, US strategic nuclear superiority was a unique historical phenomenon arising out of the peculiar circumstances of World War II; a phenomenon that neither the US nor the USSR is likely to be able to repeat.

In the 1980s where each superpower possesses a massive destruction capability against the other, elements of strategic superiority of one superpower over the other can not have the same meaning as in the 1950s and 1960s. Since neither the US nor the USSR can achieve a disarming first-strike against the other, I believe that it is almost impossible to give the term “strategic superiority” any meaning in terms of the strategic nuclear orders of battle of the superpowers. What is uppermost in the mind of the USSR when it views the strategic balance of the 1980s appears to be how its own strategic nuclear capabilities can be to its advantage in the global competition with the US for political power, rather than on an “unattainable” goal of strategic nuclear superiority.

What the USSR sees as the main features of the strategic balance in the 1980s are that the USSR is now less constrained by US strategic nuclear power in pursuit of its political (and military) objectives in the world, and that the US is more constrained by not having resort to nuclear war as a credible deterrent against a Soviet threat in areas which are not vital to US survival. Furthermore, the USSR sees its status as a nuclear armed superpower, roughly equivalent in strategic nuclear terms to the US, as enhancing Soviet aspirations to global leadership and power.

For the USSR, and in my view objectively speaking, the most important political affect of the nuclear armaments of each superpower (after providing for deterrence) is the way in which the relative strategic nuclear capabilities of the superpowers influence the political and military perceptions in the US and other countries to the USSR’s advantage.

It is in this respect that books like *SALT II and US-Soviet Strategic Forces* have an important responsibility to present accurate information and relevant analysis. Authors have a responsibility to point out that the Soviet intentions of nuclear superiority are unlikely to be achievable — at all — in the “foreseeable” future.

The technologically accurate argumentation of the nature presented in this book should also be extended into discussion of the more intricate and complex questions of the rational, political uses of US and Soviet strategic nuclear forces. The book however seems to reflect the views of the throng of US academics and bureaucrats clamouring for rejection of SALT II and a stiffened US defence posture — the 1980 knee-jerk reaction in the US to heightened Communist activity throughout the world.

The key conclusion of the book, quoted below, demonstrates this underlying policy preference:

“the future of the US-USSR strategic military relationship in the 1980s hinges more upon decisions within the United States with respect to US strategic-military capabilities and general purpose forces than it does upon the SALT Treaty or the SALT process itself.”

An illustration of what appears to be subjective or incomplete analysis in this book is the following statement:
"Unlike the conception of mutual assured destruction espoused in the United States, the Soviet Union apparently seeks to attain a strategic capability that not only would destroy the strategic forces of the United States but would also insure the survival of the Soviet Union by means of civil defence and the protection of potential high-value military targets in the Soviet Union."

While I agree in the main with the statement of the Soviet concept of waging a nuclear war, the authors' inference that this destroys the logic of the US concept of mutual assured destruction is not supportable. Does the US strategy apply only to the point of possible Soviet attack or does it apply after — that is as well — when deterrence has failed? It would be impossible for the USSR to plan on confining a nuclear attack on the US to a counterforce strike, and the USSR has no known doctrine of limited nuclear war. The US also has a warfighting doctrine and the structure of US strategic nuclear forces is the best evidence of this. There is no doubt in my mind therefore that the US logic of mutual assured destruction would be understood by the USSR to apply both prior to an attack on the US as well as in the event of a counterforce attack, or any other attack, on the US.

Another example of incomplete analysis is in the conclusion that "the inherent deficiency of the SALT II agreement is its inability to achieve the most important objective of arms control: strategic stability". This misunderstands the SALT process, which is not designed or able to ensure the preservation of one side's strengths while also protecting their weaknesses. SALT tries to strike a balance between these two qualities of both sides. The levels and types of capability encompassed by SALT assure high levels of destruction to both sides in a nuclear war (even given US ICBM vulnerability), thereby contributing to deterrence; SALT II also tries to prevent an unbridled arms race and to limit the high costs of maintaining rough equivalence. It is my opinion that SALT II contributes to strategic stability because of the element of predictability it bestows on the other side's capabilities and intentions.

If it is possible, as the authors suggest, to effect the major increases in US defence spending desired by them, the SALT Treaty could become largely irrelevant to the strategic-military balance as far as development of new, more effective systems are concerned. Nevertheless, while not ensuring such stability, the SALT agreements have provided for greater predictability of the strategic relationship, broadly defined.

THE ROYAL AUSTRALIAN ENGINEERS 1902 TO 1919: MAKING AND BREAKING, by R. R. McNicoll, Canberra, 1979, 232 pp, $18.50*

Reviewed by Captain C. D. Coulthard-Clark, Reserve Staff Group

The book under review, the second volume in a four-part series recording the history of the RAE (the first volume, published in 1977, was reviewed in DFJ 10 May/June 1978), draws its sub-title from the Corps' original motto of Facimus et frangimus — We make and we break. This is a singularly appropriate description of the book's contents which almost wholly deal with the engineer effort associated with the participation of the original AIF in the World War I. Only the first chapter, intended to briefly discuss the period 1902-14 and incidentally the most fragmented and least satisfactory of the book, does not cover a period of active service. Assisted thus by its subject matter the book makes a very good read, even for persons not reading from a sense of professional interest or corps loyalty. More than this, however, the author has produced a good history.

There is a temptation in writing for clearly defined audiences, as in this case, to relate events from the narrow perspective of the readers' special interests, thereby producing a distorted overall view. Any number of broadsheet style "corps histories", typically authorless, can be found which leave the reader with the impression that but for the part played by whichever branch of the service one is reading of other front-line participants would be left wallowing helplessly. Happily, the author of this book places himself well above this sort of "history" even though he affirms in the Preface that the book is intended for 'serving and former officers and soldiers' of the RAE. His narrative is balanced and his claims for the RAE are modest and realistic. Of course the events he relates are all viewed with the engineering problems and feats in mind but he does not waste space focusing on engineers in
engagements where their contribution was not significant. Where their part was slight the reader is told this and the narrative advances. The end result is a lucid and readable account worth the time of any soldier seeking to understand the nature and problems of war from the engineering point of view, particularly the historical development of methods of meeting those problems.

While the book’s appeal goes beyond just those interested in the corps, the sort of detail one might expect to find in a work of this sort has not been forgotten. Thus achievements in battle by individual corps members have been chronicled, including newly-commissioned Lieutenant R. A. Hunt who following the Third Battle of Amiens received a DSO, a decoration which the author notes is ‘so rarely bestowed on a subaltern officer that one must assume he had been recommended for the Victoria Cross’. Also the story of certain special units such as the railway companies, wireless squadrons which served in Iraq and Iran, and the Royal Australian Naval Bridging Train have been included in appendices at the end of the text. A description of the post-Federation uniform of the engineers has been included, and accounts of such events of significance to present corps traditions as the origins of the corps dinner on 18 June (the completion of Watson’s Pier at Gallipoli in 1915 which happened to coincide with the centenary of the Battle of Waterloo).

Nonetheless members of Survey Corps and Signallers too will find something of interest for them here. This reviewer was particularly grateful to see finally sourced a story he has several times encouraged, regarding a monocled British officer who bested the men of his Australian engineer unit who sought to mimic on parade his afectation using identity discs stuck in the left eye.

It is a pleasure to note that the high publishing standard of the first volume of the series has been again attained. The maps especially have been well done, conveniently folding out from the rear so that these are available alongside the text they complement. The work is also well provided with some fifty illustrations, nearly all photographs. Only a few errors were noted by this reviewer. On p 4 the field company in Victoria mentioned in line 20 must have been No. 2 Field Company to be consistent with the assertion in lines 28-9 of the same page. And on pp 9-10 the changing references to G. M. Kirkpatrick’s rank, ranging from colonel to major-general and back to colonel creates an element of unnecessary confusion. These are, however, small points which do nothing to detract from the book’s merits.

*The book is available from the publishers, The Royal Australian Engineers Corps Committee, c/- Directorate of Engineers, Department of Defence (Army Office), Canberra, at the recommended retail price plus postage.
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