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Managing Editor

Mr K. I. Taylor

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The Managing Editor
Defence Force Journal
Building I Room 1-32
Russell Offices
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SALUTE TO HER MAJESTY

Above: Queen Victoria's Diamond Jubilee, 1897. The Premier of South Australia, the Hon C. C. Kingston, with an escort of the South Australian Mounted Rifles. (From an album 'Sixty Different Views from Sixty Different Points' compiled by Mr J. A. Collins).

Below: Queen Elizabeth II's Silver Jubilee, 1977. The ship's company of HMAS Melbourne man ship as the Royal Yacht Britannia reviews the Fleet at Spithead. HMAS Brisbane was the other Australian representative at the Review.

(Courtesy National Army Museum, London)
ALTHOUGH this is the last issue of the first year of publication, for neatness and convenience in subsequent years, I have decided to hold over the index until issue No 7 (November/December 1977). Thus, for readers who like to have their Journals bound, the first 'volume' will consist of seven issues.

We are particularly happy in this, the seventy-fifth anniversary year of the Australian Army Nursing Service, to include an article on the early history of the Service by Susan Kenny (p. 19). Miss Kenny has the distinction of being the first lady author to appear in print in the Defence Force Journal and the first civilian lady, to my knowledge, to write for this Journal or its predecessor, the Army Journal.

The Board of Management would like to welcome two new members. They are Captain Mike Hudson, RAN, and Mr George Menham. They replace Captain Ian Richards, RAN, and Mr Bruce Cutting.

We are also pleased to print an article from the Northern Hemisphere, particularly as it deals with beach operations (p. 35), something which will become increasingly important to the Australian Services with the commissioning of HMAS Tohruk (see article by Commander Peter Shevlin in DFJ No 1). We are indebted to Lieutenant Brown for his enterprise and hope that original articles will continue to come from the United Kingdom on such subjects as the Operations in Northern Ireland, armoured exercises in central Europe and the defence of the North Sea oil rigs.

I received an article the other day from someone who was under the false impression that the Defence Force Journal does not publish articles of an historical nature. This is not the case, and we would be failing in our obligation to the readership if it were so. Any military journal worth its salt must concede that there is a great deal to be learnt from the past. This is not to say that we should always be looking over our shoulders, but there have been many far-sighted men and women in history who have something to teach us in the conduct of our profession, and we ignore them at our peril. As Jean Jaurès, French statesman, philosopher and orator said, and I am indebted to the masterly writing of Mr John Heron in one of the Bank of Canada Monthly Letters for the quotation, "take from the altars of the past the fire — not the ashes."

I shall not re-state the policies of the Board of Management in this issue, having done so briefly in my reply to Commodore Rourke's letter in issue No 5 (July/August 1977), but the Board have asked me to state in some detail their attitude to the use of pseudonyms or pen-names.

The Board in its early deliberations decided that it should not encourage the use of pseudonyms or pen-names for authors wishing to contribute to the Defence Force Journal. It did recognise that in special circumstances the use of a pseudonym might be appropriate, and these would be judged on a case by case basis. However, the Board felt as a general rule, that any author whose work is of a high professional standard, is well researched and annotated, and has a sound, logical argument, should be proud to stand by it and declare himself or herself. The Board may collectively or individually disagree with the author's point of view. This has been so in the past, and will be so in the future. A spectrum of thought is the very lifeblood of a free society. Like Voltaire, we may disagree with what you say, but we would defend to the death your right to say it. If you need proof, read this and every issue of the Defence Force Journal.
THE CASE FOR AN HOMOGENEOUS ISSUE

I have a suggestion for future editorial policy.

From time to time, the Journal could comprise a set of articles on a single topic of current or emerging interest. For example, copy “No. X” might contain articles on “job satisfaction in the services”, or some such subject of general interest.

By your highlighting of issues, and their presentation in a single copy, readers would obtain a valuable and convenient and interesting mental stimulus.

The articles could either be “commissioned” well in advance, by your approaching known authorities on the topic, or the topic could be announced well in advance and voluntary contributions sought.

I believe that the occasional “homogeneous” copy would be a useful change to the eclectic nature of your publication to date.

School of Artillery
Manly, NSW
Major

READ WITH INTEREST

The first two issues of Defence Force Journal have been very well received here at CGSC, Ft. Leavenworth. Many of the student officers have schedules that leave little time for reading, but find the time to read those journals which interest them. In this light, I must say that the length and scope of the pieces appearing in the first two issues are just about perfect for the military reader. Lunch hour perusing seems to be our lot in life. The Journal can serve as an example for other, less popular publications.

Best wishes for continued success with your fine professional journal.

Fort Leavenworth, John W. Mountcastle
Kansas, Major, United States Army.

STRATEGIC BOMBING AND VICTORY

Mr. G. J. Odgers in his letter (DFJ No. 5, July/August 1977), finds it "puzzling" that I should deduce from Vols. I and II of Webster and Frankland, The Strategic Air Offensive against Germany 1939-1945, confirmation of Sir Henry Tizzard’s opinion that “the investment in money and manpower expended in the bombing offensive exceeded by far the damage done to the enemy”. His bewilderment might have been reduced if he had paid more careful attention to the volumes I was reviewing. As I stated in my first paragraph, my review covered Bomber Command’s “independent air offensive against Germany between September 3, 1939, and March 31, 1944”.

Of course no serious historian would dispute that between April 1944 and April 1945 the strategic air offensive played a major role in the collapse of Nazi Germany. It would have been impossible to carry out the decisive invasion of Normandy in June 1944 without the overwhelming support which strategic bombers brought to bear. It is a truism, which the campaigns of 1944-45 fully confirm, that air power is infinitely more effective when used in close co-operation with armies and naval forces. The quotations which Mr. Odgers produces from Webster and Frankland indicate that they had this co-operation in mind, together with the close co-ordination of Bomber Command’s operations with those of the U.S. Strategic Air Forces which devastated Germany’s oil supplies and paralysed her transport system between July 1944 and April 1945.

It was not with this phase of the war that I was concerned in my review which, as I stated categorically at the outset, dealt with Bomber Command’s independent air offensive up to March, 1944.

Department of History, L. C. F. Turner
R.M.C. Duntroon, A.C.T.
SITTING on top of the hill during a TEWT with our 1:25,000 and 1:50,000 maps neatly folded on the map board it is easy to pontificate about this approach versus that approach, tanks here and not there; a minefield across this re-entrant, a wire obstacle along that fence. Maps give us a great deal of information about the terrain. However, what will happen when we move outside the training area and discover that the rest of Australia is not covered by 1:25,000 and 1:50,000 maps and that army training areas must be some of the best mapped areas in Australia? It now becomes much harder to obtain adequate information on terrain and discuss the advantages of this approach over that approach. Just because the large scale maps are not available our need for information on the terrain does not decrease. The need becomes more pressing.

There is a need for terrain intelligence. The effects of different types of terrain on operations and the terrain's response to the seasons need to be known. Commanders and planners at all levels need adequate, accurate and timely information concerning the terrain.

Major Lyons graduated from RMC in 1962 and was posted to RA Survey Corps. In 1964 he obtained a B.Surv (Hons) from the University of New South Wales. From 1965-67 he was 2ic of a unit surveying in Western Australia. In 1969, while serving in Sydney, he obtained a M Surv Sc. degree from UNSW. For the next year he was in Vietnam as OC A Sec I Topo Svy Tp. In 1970, he resigned from the Army and worked for a private Perth company as geodetic surveyor. He joined the CMF in 1972, changed to RACT and commanded 36 Water Tpt Coy. His present Army Reserve appointment is S02 Ops/Trg HQ 5 Tpt and Mov Gp. In civilian life, he is Senior Lecturer, Department of Surveying, Western Australia Institute of Technology.

All military operations are carried out in the environment. The environment can be considered to be composed of an array of environmental factors: climate, meteorology, terrain, soil, and so on. These factors exert an effect on military activities: meteorology on army aviation, missile systems; climate on men, material; terrain on tactics and equipment. A factor in the success of military activities will be the use to which our knowledge of these environmental factors is put. In this article only one environmental factor, terrain, is considered. The use of terrain (ground) is always to the forefront of the factors that commanders and planners at all levels must consider.

Beckett gives three examples of the good use of terrain by a commander:

- Moses led Pharaoh's AFVs into patches of bad going on the Suez Isthmus.
- At Poitiers, the Black Prince pushed forward his light troops on to ground too soft for the French armour.
- By manoeuvre and deception Montgomery caused 15 and 21 Panzer Divisions to deploy on soft ground at Alam el Halfa.

Benn and Grabau show that from a knowledge of the terrain and the characteristics of a particular vehicle, it is possible to predict (using a computer) the cross country speed of a ground contact vehicle and its ability to enter into, exit from and cross rivers and obstacles. This information was designed to be of use to commanders and planners, both tactical and logistical.

The procedure of simulating vehicle movements over terrain in a computer can achieve large scale economies in vehicle design and can avoid the construction of numerous costly prototypes. It can be used to study cross
country mobility over a wide variety of terrain with any type of vehicle.

To make the best use of terrain, commanders and planners must know how to recognise the different types of terrain in their theatre and what they are good for. There is a need to know more precisely what information we need about the terrain so as to make judgements about the terrain effect on operations.

The value of terrain knowledge has always been appreciated by commanders and planners and has formed part of their training. However, the demands of modern warfare with its need for high mobility, short notice, coupled with Australia’s huge land mass make it extremely difficult to present commanders and planners with the best possible terrain data when they require it.

Terrain information is traditionally presented as an overlay to a topographic base map. The overlay may show geology, vegetation classes, and going. None of this information can be prepared quickly. Geological maps are not presented in a manner suitable for military users. They are prepared with mineral exploration in mind. The traditional approach will not give timely and adequate information. Very little terrain information is at present readily available to the military user.

Topographic Mapping

One old adage is, “The maps you make in peace are the ones you fight with in war”. The unstated corollary to this could be, “If the map has not been made by the time of war then it will not be”. While these statements are not entirely true, there is a fair element of truth. Neither disparages the need for good, medium scale (1:50,000, 1:25,000) topographic maps.

It is interesting and instructive to digress for a moment and look at the influences that have moulded the topographic map normally used by the soldier. The specifications both for content and accuracy have been greatly influenced by the Ordnance Survey of Great Britain which was initially set up under military control to make maps for the use of artillery.

The need of conventional field artillery was for high accuracy over a relatively short distance. And since wars were fairly static and battles fought over small areas, maps at a large scale (1:25,000) were produced which allowed every building, hedge and wall to be shown. Also there was no need for a general map coverage; only certain areas had to be mapped. To meet these needs, specifications and procedures for the production of maps were evolved.

In the last twenty years with the advent of long range missiles there was the need for relatively low accuracy over long distances. War became more fluid, brushfire wars flared and this led to the need for a general map coverage of all areas. Technology has increased the range, accuracy and killing power of new weapon systems, which require rapid and accurate target identification, location and engagement.

However, the provision and design of graphics and maps has not kept pace with the changing needs of weapon systems. The maps we make are still based on the criteria of 50 years ago.

In Australia, topographic maps for defence forces are produced by the Royal Australian Survey Corps and the Division of National Mapping. The maps are required by both defence and civil users. Both organisations employ highly sophisticated techniques, are very efficient and are leaders in the mapping field.

The soldier would state that his minimum requirement is a fully contoured 1:25,000 or 1:50,000 map with all possible detail shown. The author does not wish to criticize present methods for the production of topographic maps but wants to draw attention to the need for other types of maps and graphics to meet the requirement of other defence users; for instance going maps, slope maps, and so on. Other defence forces have special graphics at their disposal. Why not us? It is within our capability of knowledge, techniques and equipment to produce them. All that is needed is an analysis of what products are required to meet the need of specific groups, i.e. a vehicle mounted troop of SAS, a cavalry troop, army aviation, etc. The fact that all groups are making do with the standard topographic map does not mean that graphics and maps better suited to their special requirements cannot be made.
At the outbreak of World War II Australia had no wide coverage of topographic maps worth considering; the need for them led to crash wartime programmes. It took until 1965 to cover Australia at a scale of 1:250,000 (most sheets uncontoured) and the 1:100,000 mapping programme is still in progress. There is no large scale coverage of 1:50,000 and 1:25,000 maps. Most infantry and artillery soldiers would consider the minimum requirements to be recent 1:25,000 maps.

Looking back on Vietnam it should be remembered that the area of Phuoc Tuy province was approximately 1/6 of a 1:250,000 map sheet. When the task force arrived there was a complete coverage of the area at 1:50,000 provided by the then US Army Map Service and these were enlarged to 1:25,000 by the Royal Australian Survey Corps and kept updated by the Topographical Survey Troop. For major operations in Australia in the near future these kinds of maps will not be available. The fact that all the major training areas, Canungra, etc., are covered by recent maps at 1:50,000 and most times at 1:25,000 tends to kindle the belief that the rest of Australia is similarly covered or, if it isn’t, then it will be before combat troops are committed. This belief is fallacious. It is necessary to look for alternative and complementary graphics and maps to present terrain information.

When and if Australia has to face a major threat, it would be to our peril if the state of our knowledge of the terrain equalled the state of the topographic map coverage in 1939. In 1942 we were lucky that we didn’t have to use the existing (or mostly non existent) maps. Next time we may not be so lucky.

It is interesting to study the role and tasks of the Long Range Desert Group (LRDG) in the Middle East. They operated far from the main bases ascertaining amongst other things the terrain and its effect on vehicles.

A study of the various books written about the LRDG shows the importance Commanders placed on terrain information and the tactical advantage they won from using the terrain information supplied. It is interesting to speculate on the parallel between the Middle East and Australia. In some areas of Australia the terrain is similar to the Western Desert.

There is a need for methods to portray terrain information quickly and adequately in areas when good large scale topographic maps are not available and to supplement them where they are available.

**The Magnitude of the Problem for Australia**

In a recent address, Rear Admiral Synnot, Director Joint Staff,* posed the question:

> “how does one operate in a country our size with its vast coastline, its limited population residing mostly in large cities, its vastly differing physical features and climates, its paucity in many parts of roads, railways, ports and air fields...?”

Israel occupies an area just greater than a 1:250,000 map. Australia is covered by approximately 470 1:250,000 maps. Each 1:250,000 map covers an area approximately 90 km x 130 km.

When the area of operation is small and operations have been going on for some time, the vagaries of the terrain will be learnt the hard way by practical experience.

In Australia, with its immense area it is unlikely that one person at the appropriate command level will have experience of all the different types of terrain. In any future operation there may not be time for the trial and error approach to ascertain the terrain. Yet soldiers at all levels require information about that terrain.

As implied earlier, mapping programmes take years to complete and in mobile war are the knowledge of conditions a few hills away may give a tactical advantage while knowledge of terrain thousands of kilometres away may give a logistic or strategic advantage. To know that a potential advantage exists and to exploit it, planners and commanders need adequate, accurate and timely information on the terrain.

Since Australia has a relatively small Gross National Product, it is paramount that the amount allocated to defence be used with maximum efficiency. Australia is likely to have in the foreseeable future a small defence budget and a small range and number of vehicles at its disposal. In any operation then it will be paramount to gain maximum efficiency from men, equipment and vehicles.

* Now Vice-Admiral, Chief of Naval Staff—Editor.
Any vehicle and equipment has limitations; it is necessary to know how and where these limitations apply to Australian terrain. The enemy’s equipment will have limitations in Australian terrain. It is necessary to know in what terrain his various type of vehicles and equipment perform poorly or well. What are the areas in which his vehicle gives maximum and minimum performance? What are the areas in which our vehicles give maximum and minimum performance? Are they the same areas? Can we cause him to deploy in terrain more favourable to us?

Returning to Admiral Synnot’s question, how do we operate in a country as vast as Australia? His question may be answered by carrying out a terrain evaluation study. This may well show that a large area of northern Australia is not suitable for military operation involving forces of the size of, say, five divisions. This is the type of study on the terrain than any potential enemy would be required to carry out very early in his planning.

**What is Terrain Evaluation?**

Research into terrain evaluation for military purposes has been undertaken by the countries shown in Table 1.

<table>
<thead>
<tr>
<th>Country</th>
<th>Organisation</th>
<th>Chief Researcher</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.K.</td>
<td>MEXE (Military Engineering Experimental Establishment)</td>
<td>Beckett, Oxford University</td>
</tr>
<tr>
<td>U.S.A.</td>
<td>Corps of Engineers U.S. Army</td>
<td>Grabau, Waterways Experimental Station (WES)</td>
</tr>
<tr>
<td>CANADA</td>
<td>DRB (Defence Research Board)</td>
<td>Parry, McGill University</td>
</tr>
</tbody>
</table>

The following countries have undertaken terrain evaluation for civilian purposes:

<table>
<thead>
<tr>
<th>Country</th>
<th>Institution</th>
<th>Chief Researcher</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.K.</td>
<td>Directorate of Overseas Surveys (in close collaboration with MEXE)</td>
<td>Barrie</td>
</tr>
<tr>
<td>SOUTH AFRICA</td>
<td>National Institute for Road Research</td>
<td>Brink</td>
</tr>
<tr>
<td>AUSTRALIA</td>
<td>CSIRO</td>
<td>Aitchison &amp; Grant</td>
</tr>
</tbody>
</table>

**TABLE 1**

Each group has a slightly different definition of terrain evaluation and objective for their system.
THAT FACTOR — TERRAIN

• planning engineering works on a regional basis
• recognising similar and dissimilar terrain so that engineering information, knowledge and experience gained in a particular terrain can be extrapolated over all similar terrain.
• collecting, recording, collating, storing and retrieving all engineering information knowledge and experience gained during the planning, construction and maintenance stages of any project.

Grabau sees that the function of terrain evaluation for engineering purposes is to provide the planner with such precise information about the terrain in the operational area that he can calculate the effects of terrain on the work forces and machines with reasonable reliability.

(Note that Grabau uses “engineering” in a very broad sense, and embraces testing and design of vehicles and equipment as well as civil engineering construction tasks).

Grabau states that there appears to be two levels of generalisation involved in terrain evaluation.
• The engineer interested in a precise estimate of cost and time for a specific site.
• The planner whose interest lies in an approximate solution.

All of these various definitions say approximately the same thing in various ways. I consider Beckett's to be the best.

“Terrain evaluation is the art of making useful statements about the suitability of the terrain for some specified purpose” and the requirement of the system is to “generate useful statements about terrain over large areas from which existing information is sparse and to do so with minimum cost and effort.”

This requirement matches exactly the needs of military activities in Australia.

TERRAIN EVALUATION:
EXISTING STUDIES

All of the organisations listed above have carried out various studies and the aims and findings of these will not be considered in detail in this article. The studies have shown that terrain evaluation for civil and military uses is a practical and economic proposition. (See notes 12 to 22 inclusive.)

The MEXE group have conducted full field trials in UK, Uganda and the Middle East. It is believed that the MEXE techniques can be readily applied in Australia and would be cost beneficial. For reports on the application of the MEXE system refer to notes 23 to 26 inclusive.

What Are The Uses of Terrain Evaluation?

From the foregoing it is possible to state some broad military uses of terrain evaluation.
• Predict the size of forces that could be effectively deployed in various terrain.
• Predict in what terrain and area a force of a given size and composition could be deployed.
• Predict engineering conditions in quantitative terms at a site, without visiting it, for use in calculation of construction effort, and source of construction material.
• Calculate effect of various types of terrain on equipment, men and tactics.
• Check equipment and vehicles at the design stage by use of computer modelling in which the input is terrain factors of various areas.
• Select testing and training areas which are analogous to likely area of operations.

Benefits of Terrain Evaluation

None of the above uses is adequately met by existing methods of terrain evaluation since terrain evaluation is not practised as an art or a science in the Australian Army. Any study of terrain is generally fragmented and conducted in isolation. Implementation of a programme of terrain evaluation would allow it to be applied in the following military areas. The areas and application in them are not meant to be exhaustive.

Strategic
• Ascertain the terrain factors in any area and predict the size and type of force that could be deployed. Conversely, for a given size and type of force, calculate the type of terrain and area where they could deploy.
• Ascertain sites where large base areas would be established.
• Ascertain the ability of existing roads to maintain a given force.
• Ascertain what forces could be maintained on existing roads.
• Ascertain sites suitable for Tactical Reconnaissance (Tac R) airfields.

Operational
• In likely areas of operations, obtain the required terrain factors and ascertain the efficiency of our existing equipment and vehicles and also those of the enemy.
• Use the terrain factors as data and parameters for equipment and vehicles to be designed.
• Ascertain the terrain factors that will maximise and minimise the efficiency of ours and the enemy’s equipment and vehicles. This would mean a complete study of the enemy inventory as well as our own.
• If an enemy has landed and is moving forward, knowing the types of equipment he has and the terrain over which he is moving, it should be possible to assess his likely objectives. This of course assumes that the enemy has knowledge of our terrain and how it effects his equipment, and that in an advance he will be striving for maximum efficiency. From our studies of his equipment on our terrain it is possible to calculate rates of advance and where he will probably be at a given time.
• Plan routes for the rapid deployment of small forces. Terrain can be selected for the group to move over, giving the fastest progress for the vehicle/equipment it is using.
• Meet the special needs of air mobile forces by selecting dropping zones, landing zones in terrain favourable to the force. Conditions at the landing zone can be predicted by visiting a similar site, measuring the soil characteristics, strength, etc., and applying them to the unvisited sites, thus maintaining security.
• The effectiveness of meagre forces can be enhanced by skilful use of their knowledge of the terrain. They can occupy and travel on terrain which gives maximum advantage to their weapons, equipment and vehicles. The LRDG did this very effectively in the Middle East.
• Increase the effectiveness of weapon systems. A knowledge of the terrain may make us wait for, say, 15 minutes until the enemy has moved into different terrain before engaging him with artillery. The shells have a greater killing area in this particular terrain than in the other.
• Select positions for guns, defences, headquarters, maintenance areas, with the full knowledge of terrain conditions at the proposed site.

Training
• With given terrain factors, select training areas (more than one will probably be necessary) that have some or all of the requirements. It is more important to have a small piece of terrain with the correct factors than a large one with the wrong factors.
• Write an exercise which is designed to train and test men, vehicles and equipment using the terrain factors that the area exhibits.

Design
• Given terrain factors in which the equipment and vehicles are to operate, they can be designed to give maximum efficiency in this terrain. By the use of mathematical modelling, the design can be tested and modified countless times until it is considered suitable to build a prototype. This results in considerable cost savings. Initial design can be carried out on a wide range of vehicles and prototypes need not be built until considered necessary.

Engineer Tasks
• Selection of suitable sites for airfields and calculation of the time required to construct or upgrade.
• Route location; source of road making material.
• Evaluation of existing roads according to the terrain over which they pass.
• Ability to apply data gained at one site to another in the same terrain class.
• Conduct reconnaissance and sampling in areas typical of the terrain class.
Tactical

- A knowledge of the terrain factors and terrain classes in the area and the effects of these factors on vehicles and equipment (calculated initially before the operation or during contingency planning and modified by experience) can be factors to be considered during appreciations.

Many of these things we already do in various ways. Terrain evaluation puts all our estimates and calculations on a much firmer footing because:

- It makes us analyse the terrain in a quantitative manner, i.e. 90% of slopes are greater than 20 degrees, rather than in a qualitative manner, i.e. it is fairly steep in most places.
- It provides a framework for storing and retrieving terrain information.
- Information gained at one site can be extrapolated to many sites in the same terrain class.
- It provides a uniform language to describe and compare terrain.
- It ensures that design, evaluation and training is carried out in areas that encompass all the terrain factors found in the likely area of operations.
- It makes one think logically. More reliable estimates of time, equipment, needs, manpower resources required can be made when considering terrain.

Since Australia is now our primary area of interest the terrain should be analysed. Terrain has a recurrent pattern. It is then possible to select a likely area of operations; for example, the mineral rich Pilbara area of Western Australia. If it is decided to hold a major exercise in this area then the lead up unit exercises should be held in terrain which exhibits some of the same terrain factors.

One may ask:

- Is there terrain closer than the Pilbara which has some of the same terrain factors but near one of our permanent camps? The Mt. Isa area could be looked at. It is relatively close to Townsville.
• What type of exercises should be held for sub-unit training in the training areas adjacent to the main city camps? It would be necessary to compare the terrain factors at the two locations.

By terrain evaluation it is possible to find terrain close to our main city bases which has some of the same terrain factors as our likely area of operation. No piece of terrain near our main camps will be the same as that found in the area of operation. However knowing the terrain factors in the area of operation it will be possible to find terrain which exhibits some of the same terrain factors. Thus it may be necessary to find six different pieces of terrain. By intelligent testing procedures we can gauge the effect of the required terrain factors on men, equipment and vehicles.

A complementary approach is that of mathematical modelling in which the terrain factors and the characteristics of the vehicle are input into a suitable computer programme. This is more suitable for the design stage.

Many individual factors have not been listed and considered in detail. This is not to say that they are not worth considering. They are all taken into account in terrain evaluation. It is necessary to consider temperature. For example, in the terrain 100 km south of Halls Creek in the Kimberleys in June, the maximum temperature is about 28°C while the minimum is below freezing. In some of the terrain in this area a rainfall of 20 mm will bog most vehicles.

There is a need for terrain intelligence. The effect of different types of terrain on operations and the terrain's response to the seasons need to be known. Commanders and planners at all levels need accurate and timely information concerning the terrain.

THE METHOD OF TERRAIN EVALUATION

There are three distinct approaches to terrain evaluation based on:

• Environmental controls — GENETIC APPROACH.
• Aerial identification — LANDSCAPE APPROACH.
• Land attributes — PARAMETRIC APPROACH.

Genetic

This is an attempt to arrive at distinctive land units by repeated subdivisions on the basis of environmental factors, i.e. temperature, rainfall, climate. Stewart criticises it because it does not grapple with the complexity of terrain on a scale suitable for terrain use. This approach leads to large complex land units unsuitable for terrain evaluation. It will not be considered further.

Landscape Approach

This approach involves the recognition in the terrain of distinctive components with only a limited range of variation of those attributes important to terrain use. Landscape components recur in distinctive assemblies of patterns. This approach involves the analysis of visible features on the ground. For this purpose the air photo is ideal and through tone, texture, pattern and stereoscopic measurement the observer has an expression of the land units. Terrain classes can be mapped.

When flying over Australia, the repetitive nature of the terrain becomes apparent in areas of the Pilbara, Kimberleys and Mt. Isa. This is the approach followed by MEXE, CSIRO and in South Africa.

Parametric Approach

This approach leads to the division and classification of terrain on the basis of selected attribute values.

Attributes for this approach must be suitable for the purpose involved. For mobility of vehicles they must include surface geometry, surface composition, vegetation, structure and hydrologic geometry.

This family of terrain factors may be subdivided into more measurable factors i.e. slope, relief. Maps of different attributes may be prepared and then superimposed to form a complex map.

This type of approach has been carried out by WES and Canada and has been mainly used for the study of cross country mobility and is here concerned with micro relief. Thus rigorous parametric mapping has been undertaken in only small areas. When applied to large areas the parametric method is extended using the landscape method by associating parametric class intervals with photo interpreted classes.
When extending, Parry uses a photo scale of approximately 1:5,000. The normal mapping scale for the landscape method is 1:50,000. The only scale of aerial photography that completely covers Australia is 1:80,000.

**Advantages/Disadvantages**

The advantages and disadvantages of the landscape and parametric methods are given in Table 2.

**A Data Bank**

A vast amount of information already exists on Australian terrain in various shires, main roads departments, valuation authorities and departments at all levels of government. It is not in a form that is easy to retrieve and apply to other areas. For most minor jobs in isolation it is probably easier to go to the site and find out what you want to know rather than search out the existing information.

This problem was recognised by Hackett very early when considering that it might not be possible to visit the site, he advocated a data store from which the information could be retrieved and used. As I said earlier, Aitchison and Grant considered that the sole function of terrain evaluation was to provide an appropriate framework for the storage and retrieval of information pertinent to engineering land use. The structure of this data base will not be considered further except to note that it is an integral part of terrain evaluation.

One very important method of obtaining terrain information would be by the use of remote sensors. Remote sensors are instruments that give information about an object without having to come in contact with it.

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**ADVANTAGES/DISADVANTAGES OF LANDSCAPE AND PARAMETRIC METHOD**

**LANDSCAPE METHOD**

**Advantages**

1. Simple descriptive phases.
2. Simple to operate.
3. Used over large areas that have sparse information.
4. Can still use if a visit to the site is impossible.
5. Suitable for initial appreciations of large areas.
6. Is relatively quick and cheap.
7. Does not rely on the existence of topographic maps.
8. Can take advantage of a large amount of existing terrain.

**Disadvantages**

1. Terrain classes are not truly homogeneous.
2. No definitive criteria for recognition.
3. Low prediction in analogous situation.

**PARAMETRIC METHOD**

**Advantages**

1. Achieves a more precise definition of land.
2. Avoids the subjectivity of the landscape approach.
3. Being qualitative it allows comparison and consistency.
4. Suitable for sensors which measure attributes.
5. Being quantitative, suitable for use with a computer.
6. Objectivity.
7. Mapping units can be rigorously defined.
8. Mapping is carried out in terms of selected attributes.
10. Able to specify terrain attributes to be treated.
11. More able to take into account seasonal and time changes.

**Disadvantages**

1. Difficult to decide on right factors.
2. Difficult to decide on right class limits.
3. Can only extrapolate by photo interpretation. Initially needs large scale topographic maps.
4. To be useful must be at large scale and then because of cost can only cover a small area.
5. Needs expensive equipment, detailed ground access and considerable expertise.

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**TABLE 2**
Application to Australia

When looking at the advantages and disadvantages of the landscape and parametric methods and wondering which is the best for Australia or how they could be combined to best meet Australian conditions the following factors need to be considered.

- To get all the terrain factors for the parametric method 1:25,000 mapping is necessary. Australia has very few of these maps.

- MEXE uses 1:50,000 photography, CSIRO uses 1:80,000 photography, Canada uses 1:5,000 photography. Australia is only completely covered by 1:80,000 photography. It is extremely unlikely that Australia will be covered by 1:5,000 scale photography in the foreseeable future.

- The landscape method does not rely on the existence of topographic maps.

- The landscape method is much quicker and cheaper than the parametric method but not as precise.

It would seem that the cross-country mobility requirements of the U.K. and U.S. have been assessed differently. The U.S. is after detailed information at every point while the U.K. is after general information over a wide area. In this context the landscape method and the parametric methods respectively achieve what is required of them.

Australia would seem to be best served by a MEXE type system in the short term as it would produce results relatively quickly and cheaply. On a longer term basis a system using the best of both approaches could be evolved and used to update that evaluation which has been based on the MEXE type approach.

If we are to fight a numerically superior enemy then we must redress the balance by using techniques that give us the advantage. We must give our troops the best information that can be obtained. In peace, we have the time to try out these techniques and evolve the required techniques. Once the techniques and methods have been mastered, full scale production need not necessarily occur. Production can occur when required. At the start of hostilities there will not be time to master the techniques.

The expertise exists in Australia to do this work. Regular officers who are already trained as engineers and surveyors could be quickly cross-trained in terrain evaluation.

Information derived from terrain evaluation can be of benefit to all ranks from the RACT truck driver, to the infantry section leader, to the staff officer planner in the capital city.

Conclusion

The terrain is an important factor in military activities. Terrain evaluation is not practised as an art or a science in the Australian Army. The study and use of terrain evaluation will enable more effective use of our men, equipment and vehicles and enable more accurate planning to proceed. It will give us advantages that we do not enjoy at the moment.

Recommendations

The following are recommended:

- Adopt the MEXE system of terrain evaluation, in the first instance, for Australia.

- Prepare a general terrain brief on Australia similar to that of Uganda prepared by MEXE.

- Study the needs of special groups and evolve graphics and special purpose maps fitted to their specific needs.

- Ascertain the terrain factors that are characteristic of the various types of terrain in Australia.

- Set up a terrain data store to make full use of all existing terrain information and be able to accept future information.

- Assess the enemy's and our own inventories and find the terrain which maximises and minimises our and his equipment.

- Implement the suggested uses given under the headings strategic, operational, design, training, etc.

- Initiate studies on terrain evaluation that would lead to the best system for Australian needs and conditions.

- Carry out an education programme so that personnel at all levels would fully use the terrain information provided.
• Initiate studies and exercises to integrate terrain evaluation into military activities.

NOTES
1 Beckett, P. H. T., “Punched Cards for Terrain Intelligence.” Royal Engineers Journal, June 1962.
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8 Aitchison, G. D. and Grant, K., “The P.U.C.E. programme of Terrain description, evaluation and interpretation for engineering purposes”.
11 Ibid.
16 Parry, J. T., Terrain Analysis at McGill University, Report on Progress, 1963-68.
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19 Shamberger, J. H. and Grabau, W. E., Mobility Environmental Research Study — A Quantitative Method for Describing Terrain for Ground Mobility, WES TR 3-726.
21 Synnot, A. M., op. cit.
24 The following MEXE reports show applications of the MEXE systems of terrain evaluation:—
26 Field Trials of a Terrain Classification System.
28 Stewart, G. G., op. cit.

Additional Notes
Land Systems of Uganda.

NO SENSE OF HISTORY

I wish Nelson would make no more signals. We all understand what we have to do.

Admiral Collingwood at Trafalgar, 1805.
Defence Film Making

Lieutenant J. R. Macnamara
Defence Public Relations

SHOOTING as interpreted by the film maker is a different field to that synonymous with the armed forces, yet the two exist together within the Department of Defence, and even suggest that the former plays an important part.

When the action is happening, whether it be a disaster situation, emergency relief, war, or Service exercise, a film crew is the last element considered to be important. However, when it’s all over, everyone wants to see the photos and film; and if the activity hasn’t been covered by the news media they want to know why.

Most of us are impressed and proud of the ‘real’ footage featured in the film “Midway”; historians relish it; critics rate it as ‘authenticity necessary for the film’; and the world wants to see it. Yet the intrepid cameraman who stood on the deck of the Enterprise probably had little help or sympathy from his embattled fellow sailors.

Everyone likes to identify with the finished product. When “The Green Machine” was released, every unit, every Corps, every soldier liked to think that he had something to do with it. It was a success.

But in the early stages, when Defence Public Relations film men were asking for a whole squadron of Army aircraft, or a troop of tanks — not to mention the hundreds of soldiers — there were the doubting Thomas’: those who thought it was a waste of defence time and money; and the ones who simply said, ‘impossible’.

Not many realised that it took two years of planning to get “The Green Machine” conceived, drafted, scripted, and through the channels for final acceptance, even before the first film image was shot.

A successful film in any field, in any country, takes time, resources, and money — all in large quantities. Its success when it is shown before an audience is the only gauge of whether the outlay has been worth the cost.

Making a film is not something one sets out to do one afternoon with a bundle of camera gear tucked under one arm like a fisherman setting off for a few hours fishing.

Producing a professional film — and that is the only type of film we are interested in — is like a major defence exercise. An exercise has its stages, and its phases. Before a major exercise begins there is a planning stage, which is both long and detailed. A film production is a very major exercise, and requires meticulously detailed planning and preparation, down to every shot the cameraman will shoot; every sound the soundsman must capture on tape, from the roar of a tank to the tweeting of a bird in the background.

During a military or naval exercise mistakes occur, and even the best-laid plans go wrong, either through unforeseen circumstances or human error. In film making delays and hold-ups are even more frequent. An Army, Navy, or Air Force exercise is a reasonably durable arrangement, in that it can proceed through wet weather, it is not subject to poor light conditions, and has a large degree of flexibility.

Film making is subject to all the normal human elements of mistake, error, and oversight, and additionally subject to an array of physical conditions beyond the control of the film director. Film making is subject to a high degree of sensitivity in cloud, light, time of day, noise, background, etc.

One scene of several soldiers deplaning from a helicopter may be required to be shot five times for example. That, to the commander of the forces involved may sound ridiculous, but he is overlooking some of the important factors of film. Film is a preserved
Service activities often create news. Here an ABC film crew interviews Army men who conducted an adventure training exercise to Cape York Peninsula to search for the grave site of the explorer Edmund Kennedy.

impression. Mistakes on it, which may be his mistakes, are retained in perpetuity, there for all to see, and blown up to larger than life if it goes on the 'big screen'.

It is in the Services' interest that the film maker seeking to portray an aspect of their role, takes the greatest care in presenting his product.

The film maker does not have the facility to look into the camera and see what he has shot. What is 'in the can' is an unknown quantity until the 'rushes' — the first prints of the film processed for marking up and editing purposes — are returned from the laboratory. He therefore needs to make certain he has what he wants before ending a scene. It is better to hold up action for one more 'take' than to let the action go and be forced to recall it for a reshoot a week later because of simple basic faults in the first take.

A number of takes are required also for cutting purposes. This process occurs in editing a film. Very few of us when we view a film at the theatre or on television, direct our attention to the number of different angles from which one scene may be filmed. The camera may start on a wide shot of a character in a room; it may then cut to a medium close shot of him talking; then to a close-up of his hand shot from one side, showing him doing something. Try a simple exercise next time you are viewing a film — watch a scene closely and see how many different perspectives you are seeing of that one scene. This variation of angles is necessary as a compensating factor. The human eye is a very sophisticated lens which can focus both as a long focal length and as a wide angle lens at the same time; therefore we have a 'depth of field' — the area of vision we can see in focus — of great magnitude.

The human eye can also flick around at a rapid rate to take in a whole scene from a number of different perspectives. The camera lens is limited to a particular frame of vision. This frame can be adjusted by 'panning' (swivelling sideways on the camera tripod); 'tilting' (moving up or down); or 'zooming' (in or out). However there is a limit to movements that can be absorbed by the camera from one position. Too much panning, tilting, and zooming will leave the audience giddy and thrown off the track of the film. Steady images are preferable, yet still required from different perspectives. Therefore we need to move the camera itself, as opposed to swivelling it around on a fixed position.

Think what you do in looking at an object. You firstly run your eyes over it, looking from different perspectives. If you still haven't seen all you want to see, you move your body.

To achieve this variation of perspectives in one film scene, the scene needs to be shot...
several times, each time from a different angle. These takes are then cut by a film editor and matched up to produce an image as near as possible to what the human eye would have taken in had it been viewing the scene. Imagine a scene shot from one position without camera movement or intervention by a film editor. It would be visually boring, and unrealistic, because the human eye would be wanting all the time to see more. Most of us become restless when a shot lingers a little too long on a subject. We want action, and action is essentially made up of movement.

A good cameraman, interpreting a script under a good director, with a good film editor, can produce a visual presentation better than the human eye could have recorded. This is the field of truly professional film making.

Film makers may impress you as fussy, meticulous — even the proverbial pain. When a film crew is shooting on location with a Service, the term 'buggerising around' is frequently heard. Their entire consideration must be directed at producing a professional result. Camera work, sound recording, and directing are processes, both technical and creative, involving concentration and mental exertion. The film crew on the job may give the impression that they are in their own little world. They probably are, as the action they are viewing has to be transformed through their skill to a 16 mm or 35 mm image on a piece of celluloid and still retain its realism and authenticity.

Much compromising is necessary in film making, such as crowding action together at an unrealistic spacing. This is necessary because the camera lens does not have the scope of the human eye. Consider the implications of one of the most important military strategies — dispersion — on film making. It makes it, without adjustment, impossible.

Crowded action is not to be feared, as camera lenses also compensate distance, e.g., a telephoto lens reduces space between the camera and subject. Space can likewise be accentuated by wide angle lenses.

Defence films are produced by the Directorate of Public Relations films section, and by commercial production companies under contract, such as Kingcroft Productions in Sydney who made "The Green Machine".

The Defence film section, which is distinct from audio-visual sections and training film units, has the capacity to produce 16 mm color documentary films, in addition to news and magazine type films. These films are marketed through television news and weekend magazine programmes and distributed on the club circuit.

The common characteristic of these films is that they are produced for public information — by the Directorate of Public Relations. They are not intended for training purposes or internal use, excepting general screenings to units. The crews involved in producing these films are qualified journalists, cameramen, soundsmen, and editors who have worked in similar commercial fields.

Professional film makers are artists. On location with a Service they, with co-operation, assistance and a simple, basic understanding of their requirements, can provide one of the best and most widely acceptable tributes to elements and roles of the armed forces.

MONTHLY AWARD

The Board of Management has awarded the prize of $30 for the best original article in the July/August 1977 issue (No. 5) of the Defence Force Journal to Wing Commander R. W. Howe, RAAF, for his article What Australia Needs is a Good Revolution — The PGM Revolution.
During the Australian convict era, untrained, frequently drunken and dissolute convicts purported to nurse the hospitalized sick. Subsequently, their place was taken by elderly women, commonly promoted from among the domestic servants. Sir Henry Parkes initiated the first reforms when, in July 1866, he requested Florence Nightingale to nominate a band of nurses who would be prepared to reform nursing at the Sydney Infirmary. Consequently, in March 1868, six Nightingale nurses arrived in New South Wales. They were led by Miss Nightingale's protégée, Lucy Osborn. The progress of nursing in Australia was slow, but during the 1880s the Nightingale System of nursing training and organization was introduced into the principal Australian hospitals. In December 1899, the Australasian Trained Nurses' Association was formed with the principal objective of safeguarding nursing standards.¹

The Australian Army Nursing Service was formed in 1902 as part of the Australian Army Medical Corps.² Its inclusion in the newly formed Commonwealth Military Forces owed much to the success of the twelve Australian nurses, who together with their Lady Superintendent, Miss E. J. Gould, accompanied the second New South Wales contingent to South Africa in 1900. At the commencement of 1914 members of the AANS were, in the main, senior nurses from the principal metropolitan hospitals. To join, they were required to be between twenty-one and forty years of age, unmarried or a widow, resident in the metropolitan area, and to have completed at least three years training in medical and surgical nursing at a recognized civil general hospital. They were unpaid and received little special training. Principal Matrons in each State were nominally in charge of the internal organization of the Service, but the major burden of co-ordination and direction fell upon the Director-General of Medical Services.³ In Australia, prior to the outbreak of the First World War, scant attention was paid to the peculiar position of nursing sisters in a military setting. Questions of authority and responsibility were barely articulated, service conditions and duties were ill-defined. The absence of its own senior administrative head placed the AANS in an inevitably weak position in any contest with medical or military authorities.

In August 1914, on the outbreak of war, Australian nurses, like thousands of their countrymen, volunteered for the AIF. In October, the AANS, CMF was mobilized, its members volunteered for the AIF too. In December, Colonel R. H. J. Fetherston, A/DGMS, commented that he was not finding difficulty in filling the Australian complement of nursing sisters but in eliminating volunteers. He thought that the volunteers from the AANS, CMF would prove sufficient for AIF purposes. No great need for nursing sisters was envisaged. The Australian Government was slow to realize that the burden of providing the AIF with an adequate medical service lay solely with it, and in any case, it was generally thought that because of their sex.
male medical orderlies were better suited to nursing duties in military hospitals, particularly those in battle zones, than nursing sisters.Only twenty-four nurses accompanied the first contingent of the AIF to Egypt in November 1914. Subsequently, as a result of War Office urgings, they were joined by a further one hundred and sixty nurses as well as eighty doctors, the staff for two General and two Stationary hospitals. The AANS in 1915, as in peacetime, was mainly composed of experienced and senior members of the civil nursing profession. Many of its members had been ‘efficient’ in the pre-war service and held responsible administrative positions in large civil hospitals. They tended to be women of determined and independent character, rooted in strongly-held principles.

The two Principal Matrons at No. 1 and 2 AGH, Miss Jane Bell and Miss Gould, were no exception. Miss Gould had experience of army nursing in South Africa in 1901. Before the outbreak of war, Matron Bell had held the post of Principal Matron for the AANS, CMF in Victoria. Before taking charge of the Hospital for the Insane at Rydalmere, Miss Gould had been Matron at the Sydney Hospital. Miss Bell had been Assistant Lady Superintendent at the Royal Edinburgh Infirmary, and since 1910, had occupied the post of Lady Superintendent at the Melbourne Hospital. The high calibre of the early members of the AANS suggested that the service was well launched.

Unfortunately the AANS in Egypt in 1915 was plagued by administrative chaos. The arrival in Egypt of twenty-four nurses with the first contingent of the AIF had caused Surgeon General W. D. C. Williams, DMS, AIF, and Major General W. T. Bridges, GOC, AIF, a little embarrassment: neither man knew quite what should be done with the AANS. In desperation, Bridges had cabled the War Office that he hoped it had something to suggest! The position was aggravated by the arrival of the main body of nurses aboard the Kyarra in January 1915. As numbers of the AANS in Egypt increased, the absence of administrative organization created worse problems. The lack of a seniority list almost spelt disaster. In 1915, the AANS was made up of almost too many senior and experienced nurses. As General Fetherston contended, the Service was too small to support many senior appointments, but senior nurses resented arbitrary demotion. Dissension and dissatisfaction threatened discipline and efficiency. Nurses’ morale was not improved by poor living and working conditions; postings among the hospitals in Egypt were at best ill-planned, at worst haphazard.

The disorganization was anathema to the Principal Matrons who were Australian products of the Nightingale System of nursing training. Their training hospital, the Royal Prince Alfred Hospital, Sydney, had adopted the System in 1882. Miss Gould and Miss Bell had commenced their training there in 1883 and 1894 respectively. Matron Bell in particular was committed to the Nightingale ideals of service and discipline besides sharing Miss Nightingale’s concern for the status of nurses. With a missionary’s zeal, Miss Bell set about the task of reforming the administration of the AANS in Egypt.

To the discomfort of General Williams and the intense annoyance of General Fetherston, DGMS, the Principal Matrons took it upon themselves to make their own appointments of nursing staff to nursing posts. Miss Bell roused the enmity of the AAMC in general and of the commanding officer of No 1 AGH, Colonel W. Ramsay Smith, in particular in her battle to have her own authority at No 1 AGH, and that of AANS matrons at other hospitals, recognized within AAMC organisation. At root, the problem concerned the status and responsibility of nursing service personnel. On the one hand, at No 1 AGH, Colonel Ramsay Smith contended that under Army Service Regulations, it was his duty to regulate the employment of the nursing staff attached to his unit and to supervise their mess and living quarters. On the other hand, Matron Bell invoked the Nightingale principles of hospital management according to which the hospital matron was responsible for the management of her nursing staff. Shortly after her arrival at No 1 AGH, Matron Bell resigned, claiming that she found her position quite untenable, but she was promptly re-instated by Senator George Pearce, Minister for Defence. As the dispute continued, Miss Bell’s field of attack widened. In her effort to maintain and enhance the status of the
army nursing sister, she sought recognition of the AANS as an independent and autonomous service with power to supervise and discipline its members, and with its own system of rank and seniority, authority and responsibility. Her scheme of reform also entailed the appointment of a senior administrative head to co-ordinate the service and protect nursing interests.

In June 1915, after six months' protest, Matron Bell was created Matron Inspectress and instructed to supervise and report upon nursing arrangements at her own and auxiliary hospitals. It was a Pyrrhic victory. Despite increased travelling and accommodation expenses, her pay remained 12/6 a day, with the result that she was compelled to draw from her own savings. She was unable to supervise the AANS as a whole because she had no authority over nursing staff at the other major Australian hospital, No 2 AGH. In any case, she felt that her recommendations were ignored and that Australian nurses were moved unnecessarily, and lived and worked under unduly difficult conditions.

The dispute between Matron Bell and the AAMC smouldered until October 1915 when the War Office instigated an independent inquiry into medical care and nursing at No 1 AGH. Its findings supported Miss Bell. It was said that in attempting to protect nursing staff, she had met with a vexatious want of sympathy. It was unfortunate that the Inquiry was marred by procedural irregularities. Witnesses were not cross-examined, although some testimonies appeared to be based on mere hearsay. As the principal protagonists, Colonel Ramsay Smith and Matron Bell, had been recalled to Australia, they were unable to defend themselves before the Court. Dissatisfied with the manner in which the War Office had conducted the Inquiry, General Fetherston dismissed it as valueless, but he began to appreciate the need to strengthen Australian control over Australian army medical services. Most importantly, in precipitating the Inquiry, Miss Bell demonstrated the seriousness of the administrative plight of the AANS, the necessity for reform, and the need to define the relation of the AANS to the AAMC. In September 1915, General Fetherston embarked on a tour of inspection of the AAMC, including the AANS, abroad. The purpose of his mission was 'to inspect and report upon the working of the AANC, AIF generally and to pay particular attention to the treatment of Australian invalids in Hospitals, and on Hospital ships and transports'. He was authorized by the Australian Government to re-organize medical services wherever he considered it necessary, subject to the consent of the War Office. The Report arising from his tour of the Australian army medical services abroad which was submitted to the Australian Government in January 1916 proved to be a milestone in the administrative history of the AANS.
Persistent attacks on the Australian army medical services throughout the second half of 1915 probably contributed most to Fetherston’s decision to make a tour of inspection. At Gallipoli, the allied medical services were acutely aware that medical preparations had been pitifully inadequate. There was a continual shortage of equipment, hospital accommodation, and trained medical and nursing staff. In the Australian Parliament and the press, suggestions were made that a low standard of medical practice was peculiar to the AAMC. The competence of medical officers in the training camps at Broadmeadows, near Melbourne, and at Liverpool, near Sydney, were seriously questioned and it was feared generally that AAMC deficiencies were greater in Egypt.1

A growing public consciousness of the potential role of army nurses probably also prompted Fetherston to pay particular attention to the part played by the AANS abroad. The inadequacies of nurses’ pay and allowances had attracted considerable attention in July and August 1916. Loss of faith in the army medical services had promoted the suspicion that the AAMC treated its nurses poorly, discouraging them from working to full capacity, and deterring potential volunteers from enlisting. In the popular imagination, the army nurse was type-cast as the ‘Angel of Mercy’, the heroine of the army medical services.17

In Egypt, General Fetherston learnt that a lack of trained medical orderlies had compelled the army medical services to draw upon the AANS more than he had anticipated. Despite the difficulties of nursing on sand in tent hospitals or in the dark aboard hospital ships in battle zones, Australian nurses had worked efficiently and well, withstanding long, demanding hours and intense discomfort. On his tour, General Fetherston also discovered the extent to which administration chaos threatened Australian army medical services. Disorganization wasted staff and equipment. Fetherston recommended a thorough re-organisation of the administrative structure of the AAMC and the AANS. Responsibility for Australian medical services was to be placed more firmly in the hands of Australian officers. Miss E. A. Conyers was appointed to the newly-created post of Matron-in-Chief, AANS, AIF on the staff of General Neville Howse, DMS, AIF. With the appointment of its own administrative head, the AANS commenced its development as a semi-independent auxiliary service.18

General Fetherston’s recognition of the importance of the auxiliary medical services, especially the AANS, reflected his growing realisation that the responsibility of the army medical service did not end with surgery and hospitalization, but included a duty to provide for the comfort, well-being and rehabilitation of its patients. Although he deplored the Voluntary Aid Detachments of untrained women, Fetherston recommended an increase of one hundred per cent in the numbers of trained nurses in military hospitals in order that, as he expressed it, ‘patients were nursed and not merely waited upon’.19

After the Somme Offensive began in July 1916, Australian medical services formed part of an allied medical scheme. By 1918, many members of the AANS were working with British nurses in RAMC units on the Western Front; others were nursing in British units in Egypt, Salonika and India. In London, Miss Conyers, the Australian Matron-in-Chief, efficiently supervised the AAMS on the Western Front. Together, she and Miss Maud McCarthy, the Imperial Matron-in-Chief, BEF, conducted frequent tours of inspection of the nursing services in France, and she herself interviewed Australian nurses arriving in England. As a result, service conditions, including rates of pay improved and the AANS on the Western Front commenced to be a cohesive body. Unfortunately, Miss Conyers in London was unable to control the limits of her far-flung jurisdiction. In India particularly, the AANS suffered, and neglect occasioned resentment.20 Apart from this administrative difficulty, the major stumbling block to further development of the AANS remained the inherent unwillingness to employ women in battle zones.21 Married women were unable to join the AANS, and army nurses who married automatically relinquished their appointment. In July 1916, it was official AIF policy that single women and widows were to serve in military hospitals as far behind the line as possible.22 Circumstances on the Western Front between 1916 and 1918 compelled this policy to be abandoned.
Between 1916 and 1918, the numbers of Australian army nurses sent abroad increased rapidly until they became an integral part of the front line medical team. After July 1916, the allied medical services were hard pressed to provide adequately for the enormous casualties on the Western Front. Skilled medical and nursing staff were always needed. The demand for nurses intensified when medical orderlies left for duty in the trenches. The AAMC adopted a ‘Six Months’ Policy’ in an attempt to relieve the pressure on over­worked staff while ensuring that men were returned to the Front as quickly as possible. Those who were unlikely to be fit within six months were returned to Australia; the temporarily incapacitated were retained in England. In August 1916, prompted by requests by the War Office for further Australian nurses, General Howse initiated a national nurse recruitment campaign. The Department of Defence was instructed to ascertain the number of Australian nurses who were prepared to volunteer for army nursing in Australia or abroad with either the AAMC or the RAMC. Advertisements in daily newspapers and nursing journals called for volunteers with three years training in a public general hospital or registration with either the RVTNA or the ATNA. By the end of October 1916, six hundred and fifty-nine nurses had registered, but some were married and therefore ineligible, and others were already employed in the understaffed civil hospitals. As a result of the campaign, it was apparent that although there were sufficient qualified nurses to meet immediate demands, future needs would have to be met by freshly qualified nurses. General Fetherston narrowly avoided disaster by defeating an attempt by Melbourne’s major training hospitals to retain young nurses by lengthening the duration of their course from three to four years.

The demand for trained nurses in civil and military hospitals placed Australian volunteer nurses in an unprecedented bargaining position which enabled them to determine the terms upon which they served with the AIF. Until the end of 1916, the War Office assumed that the nurses it sought from the Australian Government would enter the British nursing service, the QAIMNS, and work under British service conditions, at the poorer British rates of pay. It was not surprising that Australian nurses were anxious to serve in the Australian nursing service. Agitation by volunteers led General Fetherston in Melbourne and Miss Conyers in London to win a reversal of this policy, and recognition of the principle that Australian army nurses should serve overseas as part of a national nursing service. In mid 1917 two hundred and seventy-three Australian nurses were sent to British hospitals in Salonika and more went to India, but as members of the AANS.

Although heavy casualties alone resulted in a need for nursing staff, the development of medical policy on the Western Front created
a larger role for the allied nursing services. At Gallipoli, lives were lost because medical treatment in the field had been crude; in France, more sophistication was required. The conditions of trench warfare compelled the allied medical services to concentrate their efforts upon rapid recovery rather than preventative measures. At the forefront of the military offensive, the Casualty Clearing became the hub of medical organization. They were designed to effect efficient and speedy evacuation as well as to ensure that surgical intervention and the cleansing and dressing of wounds took place within as short a time as possible. Their successful operation was heavily dependent on trained nurses who supervised evacuation of the wounded and formed an integral part of the surgical team. The Casualty Clearing Stations were intended to aid the military offensive, and in the later days of the war, the posting of nurses became a matter of strategic importance.27

On the outbreak of war in 1914, little thought was given to the potential role or organization of the Australian Army Nursing Service. In Egypt in 1915, Matron Bell battled to bring order into administrative chaos. In Australia, pressure in Parliament and the press compelled General Fetherston to make a tour of inspection. His Report proved to be the turning point in the administrative history of the AANS during 1914-1918. Following Fetherston’s recommendations, it commenced its development as an autonomous auxiliary service whose members formed a strategic part of medical organization on the Western Front after July 1916. By the end of the war, two thousand one hundred and thirty-nine Australian army nurses had seen active service abroad; they had been as far afield as Vladivostock, Burma, India, the Persian Gulf, Palestine, Egypt, Salonika, Italy, Greece, and of course, France and England. The participation of the AANS in the First World War altered the position of nurses in the Australian army. It may have affected the status of trained nurses in post-war Australian society. It is also possible that the unprecedented involvement of Australian women at the front promoted a wider acknowledgement of the part women might play in Australian society.

NOTES

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7 DMS, AIF to Defence, 14 November 1914; GOC, AIF to Defence, 15 November 1914; DMS, AIF to GOC, AIF, 29 November 1914; A2663, 963/27, AWM, Canberra.
8 Armstrong, op. cit. 35, 76, 86-7, 92; Inglis, op. cit. 115.
9 DGMS, Headquarters, Melbourne to DMS, AIF, 26 November 1914; DMS, AIF to DGMS, Headquarters, Melbourne, 25 February 1915; Matron Gould to DMS, AIF, 30 March 1915; DMS, AIF to DGMS, Headquarters, Melbourne, 16 April 1915, A2663, 509/5, AWM, Canberra.
10 DMS, AIF to Defence, 7 July 1915, 4 August 1915; Transcript, Court of Inquiry, 4-7 October 1915; DGMS, Headquarters, Melbourne, Minute, 12 January 1916, MP 133/1, Box 8, 238/6/78, AA, Melbourne.
11 Matron Bell to DMS, AIF, January 1915; Defence to DMS, AIF, January 1915; Matron Bell to DMS, AIF, 28 February 1915; April 1915, MP 133/1, Box 8, 238/6/78, AA, Melbourne.
12 DMS, Egypt to Matron Bell, 30 June 1915; Matron Bell to DMS, Egypt, 9, 12, 22 July; 4, 8, 13 August; 12 October 1915, MP 133/1, Box 8, 238/6/78, AA, Melbourne.
13 DGMS to Defence, 7 July 1915, 4 August 1915; Transcript, Court of Inquiry, 4-7 October 1915; DGMS, Headquarters, Melbourne, Minute, 12 January 1916, MP 133/1, Box 8, 238/6/78, AA, Melbourne.
14 General Fetherston, Report following a tour of inspection, 24 September to 4 December 1915, 8 January 1916, MP 729/4, Box 1, 10/3/297, AA, Melbourne.
15 Surgeon General Birrell, An Account of Medical Arrangements at Gallipoli. A2663, 481/1, AWM, Canberra.
A cruiser was trying to secure to head and stern buoys near the flagship in a congested harbour. The Admiral watched the proceedings from his quarterdeck. The cruiser made a good approach and appeared to be judging the manoeuvre well. The Admiral signalled "Good."

Then things started to go wrong for the cruiser. She missed the buoys and got more and more tangled up. After watching for some time the Admiral again signalled; "Add to my previous signal God."

From submarine (returning from patrol) to Base:
Expect to arrive 1800 if friendly aircraft will stop bombing me.

From Senior Officer to submarine apparently in difficulties:
What are you doing?
Reply: Learning a lot.

Quoted in "Make a Signal" by Captain Jack Broome, DSC, RN, London, Pitman, 1956.
Captain P. L. Cameron  
Royal Australian Infantry  

Introduction

The military has emerged in many ‘Third World’ countries as a powerful political unit. Indeed, it has become the major decision-making element in both the Afro-Asian and Latin American sectors and accordingly, an understanding of political development in these areas requires an analysis of its political role.

In this regard, military regimes are viewed on the one hand as ‘saviours’, rescuing the nation from the influence of corrupt politicians or, on the other hand, as unacceptably authoritarian and incompetent. Regardless of the performance of such regimes however, ‘New States’ seem generally to suffer from chronic political instability, often to the extent that the military may evolve as the only group organized enough to take charge. Recent events in South East Asia and Argentina and the recurring incidence of coups in Africa indicate that the military will continue to play an important role in these areas, and the question arises as to why this pattern has evolved.

The Rise of the Military in the ‘New States’

Mazrui argues that military takeovers in ‘Third World’ countries have occurred within a Marxist-Leninist revolutionary framework. The military, he asserts, consists mainly of ‘peasant’ recruits, and he sees these as the common masses rising against the essentially urban elite who have been exploiting them. In the absence of industrialization, continues Mazrui, the proletariat are unable to use the tactic of withholding their labour and turn instead to the revolutionary power inherent in the ‘forces of destruction’.

To the extent that Marxist-Leninist ideology can be seen as a motivating factor, it may be argued that this ‘one-dimensional’ approach holds some relevance in the South East Asian context and to a lesser extent in Cuba. Moreover, the struggles in Cambodia, Vietnam and Laos began essentially as wars of national liberation against foreign oppressors; first against French colonialism and later aimed at American imperialism in the form of military and economic domination. The revolutions which occurred however, were not aimed specifically at the overthrow of an indigenous urban intellectual elite, and they took the form of long term intellectual-led revolutions dominated by political party organization and leadership.

In Africa, where military takeovers have occurred largely in the form of the coup d’etat and indeed where ideological motivations appear less discernible, it is difficult to substantiate Mazrui’s theory. Under these circumstances a synthesis of the more pragmatic, empirical theories offered by such writers as First, Zolberg and Welch would seem to produce a more appropriate explanation of military interventions in politics.

Briefly, these writers identify a causal relationship between military takeovers and the failure of incumbent regimes. As Zolberg puts it, although the politicians, bureaucrats and the military may share similar long-term goals if the civil government fails to achieve those...
goals then "... there is a high probability that the military will intervene."

In this view then, it is argued that intellectuals generally take power in the 'New States' at the time of independence and espouse the virtues of progress, democracy, modernization and national integration. As leaders, these intellectuals are utopian in philosophy and are found wanting in the areas of administrative knowhow, authoritative techniques and the art of delegation. In addition, corruption often sets in at high levels in the government and the administration, and the traditional political, social and economic institutions are inadequate to facilitate rapid democratization. As a result of these factors, the masses receive few of the benefits promised at independence and with limited opportunities in education they become restless and even rebellious. Instability ensues and this is reinforced by the resurgence of traditional rivalries. Moreover, intra-state primordial attachments remain strong after independence and this creates sub-national social and political divisions, manifested in the form of inter-tribal dissent and power struggles.

Faced with these adversities then, the politicians turn increasingly to the use of force (and thus to the military) in order to achieve their ambitions. This enhances the significance of the military vis-à-vis the political parties and the soldiers in turn come to realise their own power. In any event, the military generally hold the incumbent politicians in low esteem because of disorganization and corruption in government and they feel that a disciplined application of their superior organizational abilities would overcome these problems.

Finally, because of the inadequacy of traditional organizations, the reconciliation of conflict has not yet been institutionalized in the majority of 'Third World' nations. Having no opportunity to express their social, political and economic grievances through legitimate political channels the military thus turn to the use of force, often to the extent of seizing power for themselves.

This is not to say, of course, that the military are the reluctant heroes of the 'New States', forced into action by decadent politicians. Indeed, as First notes, "... whatever the political background to a coup d'état, when the army acts it generally acts for army reasons, in addition to any other it may espouse. Corporate army interests may be predominant, or they may be secondary to other more generalized political grievances; but army reasons are invariably present."

Whilst the variables of social and political instability are diverse and complex, this simplified model offers an acceptable, though generalized, explanation of political events in the 'New States', in particular as witnessed in the African experience. In this regard, First argues that military takeovers in Africa have taken place essentially in the form of coups d'etat and that such actions may be categorized into a fundamental cyclical pattern.

The Military Cycle

The simplest of these activities are strikes and demonstrations and these are indicative of the initial stage of the coup d'etat cycle. Often called 'pay mutinies', they are caused through discontent within the army over internal matters such as pay, conditions and the pace of Africanization and are given impetus by a concurrent decline in prestige of the major political parties.

The effects of such actions were witnessed in the three East African mutinies of January 1964. In Tanganyika, for example, there were only three serving African officers at the time of independence and a proposed 'crash' program of Africanization was officially held back. Accordingly, mutiny erupted amongst the soldiers who arrested their officers and demanded complete Africanization of the army.

A second category is that of 'referee' actions. These often develop as a reaction to protracted party conflict ending in a deadlock amongst politicians; a phenomena identified by Welch in his analysis of 'political schisms'. General Mobutu's interventions into Congolese politics typify this type of action, as these occurred firstly as a result of an impasse between Prime Minister Lumumba and President Kasavubu, which brought government activity to a standstill, and again in 1965, when Kasavubu failed to find a premier to succeed Moise Tshombe.

Similar factors were prominent in the Dahomey coup of 1963. This coup was prompted by a political struggle between three ethnic-regional leaders (Maga, Apithy and...
Ahomadegbe), as well as by a long drawn-out dispute between successive governments and the trade union movement. After an initial ‘referee’ action, General Soglo attempted a ‘military withdrawal’ from government, however, another political deadlock ensued and in 1965, a government of soldiers, technicians and the ‘odd’ politician was established. 1

Extending this cycle to its logical conclusion, Taylor argues that, once such ‘referee’ actions had been proved not only possible but relatively easy in Africa, the way to power for all military leaders had been laid bare; whether motivated by personal ambition, ideology, tribal loyalty or genuine patriotism. 17 Finally, in support of this view, Zolberg asserts that by 1965 ‘referee’ actions had begun to merge with ‘military take-overs’ aimed specifically at substituting a new regime for the existing one. 18

The emergence of this final phase was substantiated by the Ghanaian coup of 1966, in which President Nkrumah was deposed. Three elements were prominent in activating the coup: firstly, political imprisonment on a large scale and evidence of economic chaos, which together undermined faith in Nkrumah; secondly, attempts to stifle the power and influence of military leaders, which had created bitter resentment, and thirdly, widespread corruption and nepotism, which had begun to ‘... rot the fibre of Nkrumah’s own supporters.’ 19

Military regimes then, are a fact of life in the ‘Third World’. As noted earlier, out of the social, political and economic turmoil which follows the disruption of a traditional society and the subsequent collapse of a new political order, the military often emerge as the only effective force capable of taking charge and formulating policy. 20 Experience has shown, however, that military governments have themselves been defeated by military uprisings and doubt therefore arises as to the adequacy of such regimes and to their utility, in respect of the political development of the ‘New States’.

The Concept of Political Development

Any assessment of the strengths and limitations of military regimes in bringing about political development will be coloured by the way in which political development is viewed, and in Western literature there are two premises inherent in any definition of the concept. The first is that political development implies some form of ‘democratization’, that is, mobilization or mass participation; 21 a goal which is generally achievable through the creation of political symbols or ‘democratic’ rituals and the dissemination of a strong ideological foundation. 22 The second, which follows from the first, is that political development must enhance the institutionalization of conflict. That is to say, there is a requirement to develop institutions which are valued by the community at large and through which conflicts and grievances can be peacefully resolved; thereby preventing the outbreak of violence as a political alternative. 23

Further, a distinction needs to be drawn between political development and ‘modernization’, the latter being seen as the ‘... complex process of social and economic change caused by and manifested in the growth of new towns and cities, the spread of mass education, the extension of mass communication and the process of industrialization’. 24 In making this distinction, there is a tendency to describe politics essentially as a response to modernity, however, whilst this may have been the case in Europe, in the ‘New States’ politics is in fact the cause of modernity if indeed modernization is to be attained. 25

Finally, it is worth noting that political development as such may be viewed either as progressive Westernization or as a progressive reduction in dependency, that is to say, as political, economic and cultural decolonization. 26 Again, it may be seen in the long term as a progression towards both of these ends. In any event, these various contingencies should be taken into account when offering a definition of the concept and accordingly, a relatively broad interpretation is required.

In this context, it is useful to view political development as the process by which a society acquires an institutional capability to handle the political and social pressures that are associated with independence, decolonization and progressive modernization. Whilst this definition is drawn essentially from Mazrui, 27 it expands that illustration to encompass the relative factors discussed earlier. In addition, the definition facilitates discussion of the political role of the military in terms of both modernization and traditional cultural mores.
Pye sees the military in the 'New States' essentially as modern institutions artificially introduced into disorganized transitional societies. Moreover, he argues that pre-colonial and post-colonial leaders have attempted to change the habits of the people by creating modern organizations and of these, military organizations have been the most successfully established. It is easier to create military organizations, he continues, because the stress on discipline the explicit standards for individual conduct and the ritualized modes of behaviour characteristic of the military life-style are consonant with tradition-bound organizations.

Notwithstanding this link with traditional culture during the transition phase, Pye asserts that, due largely to the influence of Western military technology, the armies in underdeveloped countries have generally emphasised rationality and change as taking precedence over custom and ritual.

Briefly, as the armies are designed on the modern European model, they embody the spirit of rapid technological development. Through rapid acculturation in the military, the soldiers adjust to the secular and universalistic life required in industrialized societies. The organization provides psychological and emotional security and soldiers learn that events in society are determined by human decisions and not just by chance and fate. Moreover, they come to realise that much in life can be changed and that in the final analysis, it is the military themselves who have the power to change it.

Again, the military are required to objectively examine other countries in order to assess their potential threat. In doing so they compare their own standards with those of other nations and this, together with a general advancement in acquired military technology, alerts the soldier to the underdeveloped state of his own society and the consequent need for change. The army, argues Pye, is a futuristic organization in that it looks to the needs of the nation in a future state. It is able therefore to concentrate on achieving standards common to industrialized societies, divorcing itself from the realities of a transitional society.

In this view then, the military acts as a modernizing agent. The soldier becomes modernized man as he adjusts to the requirements of the organization, adopting the attitudes and learning the skills that are of value in industrialized societies in general. In doing so, the military becomes self-confident in dealing with the more developed nations, thus opening the way for 'progression' in the areas of trade and international diplomacy. In turn, the military use their power and influence in attempts to transform their own society, disseminating their acquired knowledge and expertise amongst the masses.

Evidence of the modernizing influence of the military, Pye would conclude, is seen in Malaya and the Philippines where the army has been responsible for the training of civilians in the operation and maintenance of various forms of machinery. It is evident in Latin America, where the Brazilian army has been instrumental in opening the vast interior and in promoting the natural sciences, and it is prominent in Asia, where military technology has created roads, health facilities and communications networks.

Soldiers as Traditionalizers

In contrast to the view offered by Pye, Mazrui argues that in East Africa at least, experience has shown that military regimes have a tendency to re-traditionalize society rather than modernize it. Whilst agreeing that the military is indeed a modern organization, he argues that the individual soldier's attitude to the wider society is conditioned by traditional sympathies and primordial ties.

Like Pye, Mazrui identifies a link between the behavioural requirements of the military and those in traditional society. Rather than easing the transition to the modern organization, however, Mazrui asserts that these similarities produce an attachment to the traditional society and that this sympathy is sustained by the rural origins of most African soldiers. In the colonial period, he continues, the army was low in the social scale and soldiers were recruited largely from the disadvantaged and uneducated sectors of the community; areas which produce a rural orientation rather than a compatibility with urban-Western influence.

Further, Mazrui argues that the military is in fact non-effective as an acculturative body. He sees the organization operating to embody new skills rather than new values amongst its
members, with the result that military leaders are less westernized than the intellectuals whom they have followed into power. The military are thus more able to understand and sympathize with village culture, a factor which may help to legitimise the regime and prove advantageous in bringing about political development. At the same time, however, the Colonial pattern of military recruitment proved to be somewhat selective in terms of ethnic communities and this, as mentioned earlier, has led to a resurgence of ethnic rivalries in some areas. Indeed, there is strong evidence to suggest that intra-army ethnic conflicts, between the Hausa-Fulani and Ibo factions, were instrumental in the Nigerian coups of January 1966. The maintenance of traditional loyalties then, may also lead to a breakdown in the process of political development.

Mazrui’s view of the military as a traditionalizing influence in the ‘New States’ is relatively new in terms of political theories and accordingly, empirical support is less than well documented. Nevertheless the importance placed on the use of national languages in Zaire and Libya, the modification of marriage laws in Uganda in compliance with cultural moves and the Biafran secessionist movement in Nigeria suggest possible trends towards re-traditionalization. In any event, the theory appears to offer a plausible alternative to the established paradigm offered by Pye.

Conclusion

Military regimes have become a fact of life in the ‘Third World’ and some contention has arisen as to their utility in effecting political development. In this regard, an examination of opposing views offered by Pye and Mazrui has shown that the military can act alternatively as either agents of modernization or agents of re-traditionalization and that achievements can indeed be gained in both directions.

At the same time, however, the continuing instability and recurrent incidence of military take-overs in the New States indicates that political development has not been achieved in any significant degree. This is because the military, like the intellectuals before them, have failed to attain the goals of mobilization and institutionalization of conflict inherent in the very concept of political development. If military governments wish to remain prominent in the New States, they must develop institutions which are valued by the community. This means the creation of mass participation and a reconciliation with indigenous cultures, the formulation of ideologies and the establishment of symbolic political routines and in the final analysis, the fulfilment of expressed objectives. In short, the way to political development is through the creation of responsible and representative political institutions.

NOTES

2 This assumes that indigenous leaders in South Vietnam were essentially ‘agents’ of U.S. strategy.
3 See J. H. Kautsky (ed), Political Change in Underdeveloped Countries, particularly pp. 38-41 and pp. 44-49.
4 Ruth First, The Barrel of a Gun.
6 C. E. Welch, “Soldier and State in Africa”.
7 Such as modernization, industrialization, stability and national unity.
8 Zolberg, op. cit., p. 73.
9 Welch, op. cit., pp. 163-164.
10 ibid.
11 First, op. cit., pp. 20.
12 See First, op. cit., pp. 205-219 for details from which the following summary is drawn.
13 ibid., p. 206.
14 See Welch, op. cit., p. 166.
15 ibid., p. 166. The first coup took place in 1960.
16 For details see First, op. cit., pp. 212-213 and Zolberg, op. cit., pp. 83-84. In 1967, this government was also dissolved by an Army Coup.
17 D. Taylor, Africa: The Portrait of Power, p. 117.
18 Zolberg, op. cit., p. 84.
19 Taylor, op. cit., p. 119.
21 See S. P. Huntington, “Political Development and Political Decay”, p. 208.
22 This point is argued in E. Feit, “Pen, Sword, and People . . .”, p. 252.
23 ibid.
25 See L. Binder, et. al., Crises and Sequences in Political Development, pp. 15-16.
26 Mazrui, op. cit., p. 267.
27 ibid., p. 248.
29 ibid., pp. 294-296.
30 ibid., p. 301.
31 ibid., p. 298.
32 ibid., p. 301.
33 Mazrui, op. cit., pp. 246-272.
34 ibid., pp. 251-254.
35 ibid., pp. 255-258.
36 For a detailed account of the Nigerian coups see First, op. cit., pp. 144-169 and pp. 278-301.
37 Mazrui, op. cit., p. 269.
Air Strategy and the prospect of being hanged

Group Captain F. B. Sutton, DFC, RAF (Retd)
RAAF Public Relations, Sydney

This is open season for strategy — a war game for some, but a matter of life and death for professionals. Even experts pose a particular problem. Sometimes they may seem to be presenting arguable propositions in the guise of self-evident truths as they ponder Australia’s most vital question of all — how to survive in war.

The use of aircraft presents a particular problem because one difficulty about air operations is that an intelligent discussion about them is not reducible to simplistic argument. Performance is the key, but no discussion of performance makes sense in the abstract. How far; what heights; what loads; what is the performance of the opposition? These are but a few of the questions to be asked and posed against a meticulous dissection of the thorniest question of all — the threat.

A paper entitled “The Strategic Guidelines” and presented by Dr Robert O’Neill at the ANU’s Research School of Pacific Studies, Strategic and Defence Studies Centre, demands close study by experts if only because of the apparent extraordinary facility of its leaps through reasoning on questions which always perplex expert planning staffs. The paper was presented to a conference on “The Future of Tactical Airpower in the Defence of Australia”, held on 25th and 26th November, 1976.

So far, except for praise and full assent by a journalist without experience in planning or flying air operations, and without qualifications in any branch of aeronautics, there has been little public comment on Dr O’Neill’s address. Still less, has there been any challenge to the many propositions of the doctor’s which military aviation experts will find hard to debate, or perhaps even to understand.

Dr O’Neill concludes that “if it is accepted that Australia’s defence posture against major attacks should rest on deterrence, we must move to create a formidable maritime strike capacity. The offensive nature of air power suits it well for contributing to this capacity”.

“Therefore”, continues the doctor without further argument, “Australia requires a tactical fighter force which has a primary capability for meeting attacks while they are on or over the sea, en route to their target. The nature of possible enemies in the foreseeable future does not seem to call for major specialised capacities in intercept and air defence roles and so a flexible weapons system oriented primarily towards the maritime strike role, but capable of adaptation to perform others, is required. The force should be of single aircraft type rather than a high-low mix. Provided that the Australian Government maintains the planned level of defence equipment expenditure into the 1980s, we should be able to purchase a generally adequate number of aircraft of the high capacity which is required to defend a vast area from the support of a very limited resource base.

During his service career, Group Captain Sutton commanded everything from a fighter flight (in No. 56 Squadron RAF, Battle of Britain) through squadron (No 135 Squadron, RAF) and wing (189 and 293 Wings, RAF, in Burma and Bengal) to Fighter Base. He was CO Bomber Command OCU, Basingbourn, DS at the RAF Staff College, Andover, and Secretary of the UK Chiefs of Staff’s Committee reporting on studies into defence against low attack, under the joint chairmanship of Dr Watson-Watt and AVM Kingston-McCloughry. He was Group Captain (Ops) HQ Near East Air Force and Air Adviser to the British High Commissioner in Canberra. He retired from the RAF in 1968, and has held commercial and instructor’s licenses in Australia. He was a journalist on the Sydney Sunday Telegraph and Daily Telegraph and PRO to the Commissioner of NSW Police. He is author of the Manual of Fighter Operations and of two books, The Way of a Pilot and Jungle Pilot (published by Macmillans). He is a student member of Grays Inn of Court, London.
"Australia is fortunate to be considering this purchase at a time when her requirements for a multi-purpose combat aircraft appear to be very close to realization in many of the types available for our selection. It is ironic that having been wrong on this point for the past fifty years, Douhet’s belief in the utility of the multi-role single type of combat aircraft may now prove to be highly relevant."

Many aviators will readily agree. Others will cavil on the grounds that it begs the whole question and makes no concession to even a suggestion that there might be a case for balance between this multi-purpose aircraft and the specialised aircraft, such as long range reconnaissance aircraft.

In the way of a ready acceptance of all-purpose aircraft there are too many people living who have seen the disasters that can arise from attempts to use all-purpose aircraft against highly trained, specialised, defensive fighter forces, to name but one portion of the total possible threat.

They point out that the British learnt the lesson first with Lysanders in France in World War II, then with Bolton and Paul Defiants, both of which types suffered disastrous losses at the hands of German fighters. The Germans learnt it as they later suffered heavy losses with their JU 87s once they came up against a sophisticated defence. They had the lesson rubbed in while using ME 110s in a day fighter role. The Australians learnt the lesson in another war, with Meteors in Korea.

To many, if not all, practising experts, Dr O’Neill’s description, “high/low mix tactical fighter force”, will be found obscure. To them, “high/low” normally refers to flight profiles, not to types or roles of aircraft. Also, they might argue, the term, “GA and intercept strike models”, suggests a strange mishmash in the context of the term “high/low mix”.

It suggests of course, that GA is conducted at low level. At least, few would quarrel with that. Though why is GA discussed and not interdiction? Or is “GA” meant to mean all forms of ground attack, including direct and indirect support to ground forces?

In fact, modern experience shows that interception must be carried out increasingly at low level. Incidentally, Dr O’Neill describes fighters as “air defence” and “interceptors” as though there is a difference in kind between the two.

Every captain of aircraft knows that once combat is enjoined its outcome will depend on the hard facts of performance, human and technical. It is then that questions of kind, as well as of degree, are settled in merciless terms of survival. In other words, it is no good for the defence to fly aircraft that are inferior, or even as good as those of the opposition. If they are anything less than better they will be shot out of the sky to join the ghosts of other compromises like the Lysander, Defiant, the JU 87, ME 110, and the Meteor.

Protagonists of multi-purpose aircraft are usually careful to specify the genus by definition if not always by name. Thus the KFIR C2 is described by its makers as “a multi-role fighter interceptor and ground attack weapons platform”. It is not described as a maritime strike aircraft.

If it is mere counsel of perfection to demand the best, but not practical because of the hard facts of logistics, finance and training, any serious student of air warfare should surely expect to see how planners arrive at a compromise.

Meanwhile, opponents of compromise might point to a simple sporting analogy: if the opponent is Connors, and the game is tennis, it is no good opposing him with an all-rounder who is good at squash, badminton and therefore necessarily less good than Connors at tennis.

As in all forms of warfare, there are no prizes for coming second in air combat: and if you can’t win air superiority, however local and temporary, you are liable quickly to lose all.

So some experts will say that Dr O’Neill’s arguments also need watching on this point. He says the Soviet air force is generally highly skilled, but being very large, it suffers from unevenness of performance . . . “It is difficult to make a case for highly sophisticated aircraft on the basis of possible threats . . . ” Does he really mean “possible” or, perhaps “probable”. The difference goes beyond mere semantics.

Other experts, with world-wide reputations, might disagree with Dr O’Neill’s opinion, so
A Westland Lysander and a Gloster Meteor, two all-purpose aircraft which failed disastrously.

long as Soviet aircraft and weapons systems figure in the threat. In the new edition of the authoritative annual, Jane's 'All the Worlds Fighting Aircraft', the editor, Mr J. W. R. Taylor, said Washington had seriously underestimated the latest MIGs and the Soviet Backfire bomber, which could strike at targets in the United States from Russian bases and fly on to Cuba. Mr Taylor also stressed that writers who treated the MIG-25 which landed in Japan as somewhat old-fashioned in design and materials were dangerously wrong.

Finally, on the whole subject of composition of the RAAF yet another body of experts, who surely ought to be heard, would argue that it would be futile for Australia ever to think of using aircraft in the role of pure interceptors, still less as those which could be used for ground attack as well. They would point to the extremely limited radius of action of the defensive fighter, particularly at low level and the wide separation of vital points in Australia open to attack by the enemy.

They would probably argue that in support of the very principles of Douhet that Dr O'Neill quotes ('... "aerial warfare admits of no defence ...") it is idle to think of defending a continent with fighters and that our effort would be better spent in strike aircraft.

A prelude to the latest 'silly season' for journalism was provided during the opening phase of Kangaroo 2.

At least one defence writer described how the RAAF Mirages had been shot out of the sky by USN Tomcats from the carrier Enterprise. The comments were evidently written in ignorance of the setting of the exercise and of the careful analyses that are made of evidence from such sources as combat reports and radar tracks and timings — analyses that take time — certainly more than that taken by commentators who went into print within days of an event which none of them saw at first hand.

One commentator, with the most to say on the subject, made no contact with those manning the defence forces during the air defence phase in question. The phase consisted of a series of attacks by carrier-borne aircraft on RAAF Base Williamtown. The commentator neither flew as an observer nor did he visit Williamtown. He is not a pilot, nor has he any experience of operational flying, planning, or associated staff work. Nor did he see anything of the fighter directors at work, or attend any of the de-briefings. In short, he saw less of the battle than the man in the street around Williamtown or thousands of people on the base, fragmentary though their glimpse was. At least they saw Tomcats, the most sophisticated element of the enemy attack firmly held by Mirages throughout a mass dogfight.

The spectacle, of course, was bound to be inconclusive in tactical terms, without a thorough knowledge of the setting of the exercise which placed constraint on both attackers and defenders. It also demanded a working knowledge of what air defence operations are all about, down to the kind of detail discussed in de-briefing.

But like discussion couched in terms unknown to professional military pilots, such as those put forward in argument for particular types of fighter operated as a "high/low" mix, it was all good clean fun for the silly season.
for armchair strategists. It is only to be hoped that like all sporting seasons, it comes to a close.

In the meantime, the planners, faced at every turn with hard facts, must be left to ponder their perennial questions of how to get a quart out of a pint pot — and to be sure that it is the right brew for Australia.

It is an intractable problem for many reasons. Perhaps the main one is the enormous disparity between the size of the continent and the vastness of its ocean approaches on the one hand, and the lilliputian size of its air force compared with the major powers on the other. The role of aircraft as a deterrent/defensive force is one which must, however cunningly contrived, leave an alarming amount of initiatives to the enemy.

If invasion is to be the name of the enemy’s game, planners will have been asking many questions as they try to keep in focus the clearest possible notions of performance in weapons they are considering as options. A “high/low” mix would not have figured in their scheme of things, if only because of the imprecision of the term.

Even well-worn definitions such as ‘defensive’ and ‘interceptor’ fighters must now call for more precise definition by those who ask whether it is feasible that we could ever defend more than one or two vulnerable points throughout the whole of Australia with such meagre resources, let alone try to defend a theoretically infinite number throughout its ocean approaches.

Commentators who quote the aphorisms of students of war from another era must be prepared to argue against other aphorisms from the same era such as, “to seek to be strong everywhere is to be weak everywhere” as they ponder the role of a small air force seeking to defend a large continental land mass in time of war.

It would not be surprising then, if some planners, if only in the role of devil’s advocate, discard the idea of any form of fighter and examine rather, the claims for strike aircraft acting either alone or in complement to a long range maritime reconnaissance force.

Compromise, so attractive in reconciling points of view in the world of human affairs, may seem to some after all to break the first principle of war ‘maintain the aim’.

To speak loosely of aircraft with multiple roles suggests a multiplicity of aims all unrefined by nature and ill-defined in purpose.

Least of all, planners who go on trying to do their job, while others without direct responsibility for mistakes make Olympian judgement, are scarcely likely to be swayed by those who simply either have not done their homework, or have not really understood that the question is not as simple as it looks.

After all, air strategy is literally a matter of life and death, and like Dr Johnson’s prospect of being hanged should ‘concentrate the mind wonderfully’. *

* “Depend upon it, Sir, when a man knows he is to be hanged in a fortnight, it concentrates his mind wonderfully.”
A BEACH RECOVERY ON THE NORTHERN FLANK OF NATO

Lieutenant D. T. Brown, Royal Marines late BARV Commander, HMS Fearless

Background Information

THE assault squadrons embarked in the Landing Platform Dock (LPD) HMS Fearless and HMS Intrepid, consist of four Landing Craft Medium (LCM9), four Landing Craft Vehicle Personnel (LCVP) and an Amphibious Beach Unit (ABU). They are manned by Royal Marines, with attached Royal Navy Personnel.

The task of the ABU is to control and maintain the rapid transit of men, vehicles, stores and equipment across the beach and through the beach exits. The reception and despatch of landing craft at the beach is an important part of this task. For control purposes, the ABU is divided into three sections, Beach Control and HQ party, Recovery Section and Plant Section. Maximum efficiency and flexibility is achieved by having all personnel cross-trained to carry out any of the non-technical tasks.

The sections are composed as follows:

Beach Control and HQ
Personnel

Beachmaster: Captain, Royal Marines
Assistant Beachmaster: Colour Sergeant, Royal Marines
Two RM Signallers
Three RM Drivers
One RM Cook
One RN Medical Assistant
Three RM Marshallers

Vehicles
1 x 4 Ton Bedford MK winch
1 x ½ Ton Landrover GS
1 x ½ Ton Landrover FFR
1 x ¾ Ton Trailer

The Beach swimmers are found from any of the personnel above. This section is undermanned in relation to the number of different tasks it may be called upon to do, and cross-training is therefore essential. It is not unusual when the workload is heavy for the cook to leave his galley and marshal an incoming helicopter, or guide armour through a narrow exit.

Recovery Section
Personnel

One Sergeant Vehicle Mechanic (Commander and Ship's VM)
Two Corporals Vehicle Mechanic (Recovery Mechanics)
One Marine (Mne) Vehicle Mechanic (Driver)

Vehicle

The Beach Armoured Recovery Vehicle (BARV) which is based on the Centurion Mk 5 hull.

The main tasks of the Recovery Section are the recovery and repair of all vehicles, including Armour, which fails to cross the water gap, that is the stretch of water between the bow door of the landing craft and the dry beach; the clearance of large obstacles from the beach and its exits, and from landing craft approach lanes; the refloating of beached landing craft by use of the buffer pad on the nose of the vehicle. The BARV has no winch and relies on push/pull methods to achieve its results. The fitting of winches on the BARV is in the research stage.

Plant Section
Personnel

One Corporal Vehicle Mechanic (plant fitter/driver)
One Mne (D) driver.
Vehicles

Two Michigan 175 DS Medium Wheeled Tractors, one fitted with a Bulldozer Bucket and the other with a Forklift attachment and having the ability to lay Class 30 trackway using special rolls and fittings, make up the vehicles of the Plant Section.

Their tasks are to prepare the Beach and exits for wheeled vehicle traffic, recovery of light vehicles and the movement of palletised loads.

In 19 months as the BARV Commander of HMS Fearless, I was called upon only twice to carry out a non-exercise beach recovery. On the first occasion, an FV 437 (Armoured Personnel Carrier) on a training exercise, threw a track on an exposed beach, with an incoming tide which did not allow time for the track to be refitted there and then. The casualty was towed along the beach to the high ground behind the beaching point and the track repaired there.

The second occasion will now be described in detail.

Exercise Teamwork

Exercise Teamwork was a large scale NATO exercise held in Scandinavia during September/October 1976, in which 80,000 men, 270 ships (including 24 submarines) and 900 aircraft took part. The exercise had been four years in the planning, the multi-national fleet assembled at the historic Scapa Flow anchorage in the Orkney Islands before sailing in convoy across the North Sea to Norway.

The Assault Squadrons final briefing for the landing was held while the ship was transiting the fjord to Namsos, the exercise area.

Monday, 30 September 1976

NAMSOS, NORWAY

Mission: The 4th Assault Squadron will land 3rd Commando Brigade over NAMSOS beaches GOLD I, GOLD II and BLUE I.

Execution: LCVPs will land elements of 1 Amphibious Combat Group RNLMC (Royal Netherlands Marine Corps) on the GOLD beaches. The remainder and all transport will land across BLUE I from LCM Mk 9s.

The ABU was loaded into landing craft as follows: the BARV and the Tracklaying Michigan in LCM F2, coxswain C/Sgt. Roger Haylor, the Bucket Michigan, 4 tonner and the two landrovers and the trailer in F3, coxswain C/Sgt. Bernie Todd.
Because of political and public relations considerations, the landing was timed to take place at 1330 hours (Local Time) — which happened to be about low water.

As BARV Commander, my briefing by the OC Amphibious Beach Unit included a beach report summary. He informed me that the report stated the beach to be favourable, though a few sticky patches could be expected below the waterline. The beach was on reclaimed land to the east of the town.

At 1323 hours F2 and F3, the first wave of LCMs, retracted from the dock of HMS Fearless and began the run-in to the beach a few hundred metres away, F2 beaching at 1332 hours with F3 standing off. From my position on top of the BARV, I called for a final bottom check by the ABU swimmers, standard practice before landing on a strange beach. The bottom was reported to be clear of obstacles and to be firm, the swimmers experienced no slipping and in waist deep water appeared to have no difficulty in standing upright. The swimmers cleared from in front of the LCM, and in first gear, we crept forward in the BARV, moved down the ramp and into the water and ... STUCK.

Using different gears and throttle settings proved to be futile, the spinning tracks were just digging the vehicle in deeper. We switched off the engine and had a look. From the rear catwalk, I could see that the toe of F2's ramp was a mere 6 inches behind my drive sprockets and the BARV was steadily sinking.

F2 retracted to deeper water and came in again in an attempt to drive the toe of the ramp further under the drive sprockets. It was no good, the ramp just bounced off of the mud and rose over the tracks. C/Sgt. Hayler returned F2 to its original position square behind the stranded BARV.

Bringing the Trackway Michigan to the head of the LCM's rounddown, the BARV's 5 metre 'A' rope was split and reconnected to make a single 10 metre rope which was then connected to both the BARV and the Michigan. Meanwhile the crew of F2 had broken out their own vehicle recovery gear, this was then shackled to the rear of the Michigan. Two planks of Class 30 trackway were then jammed down between the track, at the sprocket and the toe of the ramp. This was an attempt to provide grip for the tracks to assist them in regaining the ramp.

The BARV was put into low reverse gear, the Michigan into four wheel drive, low reverse, and the LCM crew began to winch in on their gear. When all the slack had been
taken up, it was a time for all throttles to be fully opened. By this time the BARV had sunk to a depth of 1.5 metres. For long agonising moments the tracks spun uselessly, the planks of trackway slowly disappeared beneath it. I was about to call for more trackway, when suddenly the BARV rose up the ramp, scrambled for a hold and drove on to the tankdeck. The trackway had disappeared. With the BARV, came about ten tons of stinking, slimy, blue-grey mud which was so heavy that the ramp could not be raised immediately. F3's assistance was required before F2 could be refloated off the beach. Once clear, the mud was hosed off the ramp and the ramp raised.

The time from the initial beaching to F3 towing us off was a little over 63 minutes but in that time the BARV had sunk 1.5 metres into the mire.

Clearing the mud for F2's tankdeck was necessary before we could return to the ship. This took almost a further hour of hard digging and hosing by all ranks. The BARV was offloaded on to Fearless's tankdeck at a little after 1530 hours. To allow the landing to continue, the Michigan was returned to the beach, where it had little problem landing over its own trackway. Washing and servicing the BARV was delayed until the last of the embarked force had left and was completed at 2135 hours.

Later, over a couple of jars in the Wardroom, we heard that the US Marines, on another beach had had similar trouble with a Caterpillar D8 recovery tractor (fitted with winch). While they were deciding what to do about it, the tide came in. When the tide went out again all that was left of the tractor was a four inch length of air intake pipe sticking above the sand. This vehicle was immediately written off, the cost of recovery from this position far outweighing the cost of a replacement vehicle.

On Wednesday 2 October, again in F2, we headed for the beach, the same beach but this time we were on a tide which was nearly at its height. The landing was a normal one and the BARV was operated on the beach for about 30 minutes to prove the point, before returning to the ship.

The beach was reclaimed land. We found out later what that meant in that part of the world. On a mixture of sand, alluvial blue-clay silt and sawdust and at low water, the LCMs were beaching within feet of the edge of a shelf, the bottom of the fjord being hundreds of metres below them.

It could have been worse, it could have been winter.
Lieutenant P. A. Pedersen
Royal Australian Infantry

I suppose every high school history course includes the First World War. However Ypres, the Somme, Passchendaele and Verdun do not generate the same interest as the Napoleonic Wars more than a century earlier. Four years of trench warfare, devoid of movement could not compete with the spectacular campaigns of Napoleon that stretched from Spain to Russia. It was only at Duntroon, two years later, that I was able to study the 1914-1918 battles in some detail. I realised then that they were the result of the mobilisation of the entire resources, manpower and production of the great nations involved.

On a recent trip to Europe I was fortunate to see first-hand some of the locations where the major battles of the First World War took place. My wife and I followed the line of the Western Front from Ypres in the north, through Vimy Ridge and the Somme, to Verdun in the south. The aim of this article is to describe these battlefields as they are today.

Our first stop was at Armentieres which has acquired a certain fame through its dubious connection with 'the Madamoiselle'. After a brief occupation by the Germans, Armentieres was captured by the Allies in October 1914 and held for the next three and half years. Situated just behind the lines it became a forward base and recreational centre for the British armies. In 1918 the town was overrun by the Germans and the 1st Australian Division played a vital part in holding their advance at Hazebrouck, about fifteen miles to the west. Armentieres was largely destroyed in the severe fighting that accompanied this offensive. Today the town has been completely rebuilt and is again supported by its age-old industries of brewing and linen manufacture. It is dominated by the Place General de Gaulle with its imposing Hotel de Ville. As was the case with most of the larger towns through which we passed, the signs of actual fighting are few.

Flerbaix, Fromelles and Aubers Ridge are found to the south of Armentieres. Fromelles was the scene of the Australians' first major action on the Western Front and as such was a prelude for the bitter fighting to come. At 6 pm on 19 July 1916, the 5th Australian and 61st British divisions crossed the startline in an attack aimed at deterring the Germans from switching troops from this sector to contain the Somme offensive to the south. After capturing one thousand yards of trench the Australians were forced to withdraw when the enemy infiltrated their rear. In a little over twenty-four hours the 5th Division had suffered over five thousand casualties in an action described by British communiques as 'some important raids'.

Today there are few traces of the bitter fight that took place here. One sees a few bunkers, that is all. Numerous cemeteries dot the area but for us, the most important was at VC Corner, the centre of the action just described. There are no headstones because this sector was not recaptured by the Allies until 1918 and by that time the bodies could not be identified. Hence the names of the missing are inscribed on a white brick wall in front of which stands a simple cross on the neatly mowed lawn. We stood looking at that wall for a long time, alone with our thoughts. Presently a Frenchman entered the cemetery and he began to read the names to his young son. When I told him we were Australians he seemed quite moved and spoke...
of the sacrifice the Australians had made here. My wife and I were touched.

The surrounding countryside is undulating and here and there we could see the small hillocks and outcrops on which were located the machine-guns that reaped such a grim harvest. About two hundred yards from the cemetery lie the remains of an old bunker, standing forlorn and incongruous in the middle of a green field. The area is mainly farmland now and the only trenches one sees are the furrows made by a farmer’s plough or the occasional irrigation ditch. A tractor may be heard in the distance or the report of a shotgun as a farmer rids his crop of rodents. They are the only man-made sounds to break the silence. It was difficult to believe that such a fierce struggle took place in what are now peaceful, tranquil fields.

From Fromelles we travelled south through Bethune and Lena to Vimy Ridge. Captured by the Canadian Corps on 9 April 1917, part of the ridge has been presented by the French to the people of Canada. The crest was held by the Germans, a strip of land which gave them command of the battlefield to the west for a distance of about ten miles. Extensive tunnelling operations were carried out by both sides, twenty-two miles of tunnel being constructed by the Allies alone.

The Vimy Ridge battlefield has been preserved for posterity and with some minor exceptions, today’s visitor sees it as it was in 1917. As we drove up to the crest we saw that the ground on either side of the road had been fenced off and ‘Danger’ signs placed at regular intervals. The earth is pock-marked and uneven, a result of the tremendous shelling that characterized the First World War battles and it is still full of explosive. Then, just below the crest, the undergrowth clears and one comes into the grass-covered battlefield park. The front-line trenches have been preserved with concrete sandbags and there are several huge mine craters. One of these plunges to a depth of about sixty feet and around the line of this crater, separated by little more than the length of a cricket pitch, are the opposing trenches. I stood in the German lines and was amazed at the nearness of the Canadian trenches just a stone’s throw away.

On the crest itself stands the Canadian National Memorial with its two huge pylons and on the terrace in front, the figure of Canada in mourning. Inscribed on its walls are the names of over eleven thousand Canadians who have no known grave. It is a most impressive monument, both in its simplicity of design and in the peaceful surroundings in which it is set.

Leaving Vimy we headed south through Arras and Bapaume, passing a rather large sign which read ‘Welcome to the Country of the Somme’. This was certainly not a relic from the First World War. We spent the night at Albert which, until October 1916, was well within range of German artillery and very badly damaged. The symbol of Albert is its Golden Virgin atop the impressive basilica. On 15 January 1915 the dome on which she stood was struck by a shell and although she did not fall, she hung precariously at right angles to the rest of the church. Today the Golden Virgin has been restored to her upright position.

The area around Albert was the centre of the Somme battles and the reminders of war are many. Four kilometres to the north-east lies the tiny village of La Boiselle where the British 34th Division was destroyed on 1 July 1916. La Boiselle was typical of a day in which the British armies suffered sixty thousand casualties, a day that has achieved notoriety.

At La Boiselle today there are memorials to the 19th and 34th Divisions and eight hundred metres to the east of the village is the largest mine crater on the Western Front, preserved as it was in 1916. It is three hundred yards across and ninety feet deep and the mine itself contained sixty thousand pounds of explosive. Many small areas around La Boiselle have been fenced off and even now, sheep cannot graze in them because the risk of detonating unexploded ordnance is so great. I remember stopping in front of a newly built house while I asked for directions to the crater. Thirty shells of various calibres were piled to the side of the road in front, products of the clearance of the tiny block of land on which this house stood.

A short distance to the north of La Boiselle is the village of Pozieres. Between 13 and 18 July 1916 four British attempts to capture
Pozieres had failed. At 12.30 am on 23 July the 1st Australian Division crossed the start line on the right flank of a two divisional attack from the south. By 7.30 am the village was in Australian hands, the only area in which ground had been gained on a seven mile front. On 4 August the 2nd Australian Division attacked further northward and captured the ruins of the famous Pozieres windmill. This led to the assault on Mouquet Farm and the bitter struggle that ensued here is indelibly recorded in Australian military history.

It was with a certain awe that we approached this area where twenty-three thousand Australians fell in eight weeks. Pozieres today consists of several sheds and old dwellings astride the road. It is lifeless, ghostlike. The enormous Pozieres Military Cemetery is located to the south of the village and there is also a memorial to the 1st Australian Division. However it was the Windmill that made the deepest impression on us. It is a mound about fifteen feet high, covered in long grass and smaller than the average back yard. A footpath leads from the road to a memorial stone in the ground whose inscription states that more Australians fell here than in any other part of the Western Front. Stepping over the stone I climbed the few short steps to the top of the mound. Stretched out before me was an extensive view of the surrounding countryside from Thiepval on the heights to the west to Bapaume in the north.

I stood on the Windmill for some minutes, trying to visualize the fury of July 1916. It was hard to believe that this insignificant looking piece of ground could have cost the lives of so many men. On the other side of the road is the memorial to the Tank Corps. Tanks first went into action from this spot in September 1916. The memorial consists of a central obelisk and four models of tanks of the 1914-18 period. One of these bears bullet marks, a legacy of the Second World War.

From the Windmill we drove the few short kilometres to Mouquet Farm which also commands a fine view, looking down on the Bapaume-Albert road to the east. It was defended ferociously by the Germans, much of the fighting taking place below ground. Today the farm is untouched by war. As we drove up the gravel driveway we passed a small pile of rusting shells. I spoke to two young Frenchmen who were working there and they pointed out the site of the original farmhouse, a small hillock about one hundred yards from where the present buildings stand. What was a muddy morass in 1916 is now a veritable sea of green and sheep graze peacefully on grounds where once, thousands of men fought and died.

To the north-west lies Thiepval. For the first two years of the war the Germans looked out over its steep western slopes and had a wonderful view of the Allied lines. They converted it into an impregnable fortress with an extensive tunnel network below ground. The Australian sacrifice at Mouquet Farm was made in an attempt to drive a wedge behind this fortress and thereby cut it off.

The great Memorial to the Missing marks the site of Thiepval today. Built on the old German defence system, it consists of a huge central archway, flanked by smaller arches that rest on sixteen pillars. On its walls are recorded the names of the seventy-five thousand men who fell in the 1916-17 Somme battles and have no known grave. The monument is an enormous structure set in neatly mown lawns that are enclosed by copses of small trees. The silence and stillness were uncanny. The only sounds to be heard were the rustling of the wind and the singing of the birds.

This was typical of all the Somme cemeteries and memorials that we saw. An old Frenchman clad in blue work dress might be tending the graves — he is the only sign of
movement. Everything else is still, very still and very quiet. It is as though the earth, destroyed by years of shelling, is sleeping in eternal peace in company with the hundreds of thousands of soldiers that she received between 1914 and 1918. It is unforgettable.

Nearby lies the Schwaben Redoubt, a maze of underground tunnels and passages that sheltered the Germans in this area from the massive bombardments which preceded the Somme offensive of July 1916. When the artillery ceased they set up their machine-guns and wreaked havoc among the attacking forces. Mill Road cemetery marks the site of Schwaben Redoubt today. The headstones here are laid flat because of the continual subsidence as the tunnels crumble. As we stood in this cemetery I noticed streaks of chalk in the soil. Later I ascertained that these were the remains of the German trenches leading up to the Redoubt. Sixty years of ploughing have not eradicated this legacy of war.

Leaving Thiepval and Schwaben we drove on to Beaumont-Hamel about two kilometres to the north-west. The Royal Newfoundland Regiment was decimated here on 1 July 1916 and the preserved battle field is now known as the Beaumont-Hamel Newfoundland Memorial Park. As we left the car we were again confronted by the shell-torn ground with which we had become so familiar. The trenches are silent now and as we followed their course we came across spent shell-casings, barbed wire, pickets and other debris. The ground slopes gently down towards the German lines and the distance between the opposing trenches varies from fifty to one hundred yards. In front of the Allied trenches stands a forlorn line of rusting barbed wire pickets, awaiting an attack that will never come. Dominating the battlefield is the great Caribou monument to the Newfoundlanders and in the middle of no-man's-land stand the remains of a lone tree that somehow survived the war. The ground is covered by a thick cloak of grass and enclosed by fir trees. Three cemeteries lie at the northern end of the park, overlooking a small dip that was once a main killing area for German machine-guns.

Our next stop was Flers, about six kilometres east of Pozieres. It is noteworthy because tanks were used for the first time in its capture. Flers is typical of the many small villages in this area of northern France that were destroyed by the war. The atmosphere is morbid, almost deathly. There are no majestic churches, no tree-lined streets, no beautiful shops. Nothing from pre-1914 days survives. Only old people seem to live there and we gained the impression that the world had passed them by. As we drove through Flers men stopped their work and women leaned out of windows to look at us. It was as though they had never seen anyone from outside the confines of their village. We felt like intruders from another age.

There are many cemeteries and memorials close to Flers. Some of them bear famous names such as Gueudecourt, the scene of a night attack in terrible conditions by the AIF in November 1916. We found the beautiful memorial to the South Africans at Delville Wood where they received their baptism of fire. Between 14 and 20 July 1916 they captured all of the wood except for the southwest corner, suffering heavy casualties in the bitter fighting.

Today Delville Wood is covered by South African oak trees, setting off the magnificent archway that is the basis of the memorial. Signposts indicate the old trench lines that were named after streets in London and Cape-town. The greenness of the trees mixed with hues of various colours as the sun filters through the leaves onto the ground below make the woods a place of rare beauty. These cool, peaceful glades are suggestive of a lover's walk or a family picnic area, far removed from the inferno of July 1916.

From here we drove south through Corbie to Villers-Bretonneux. On 4 April 1918 the Germans reached the outskirts of this town and were prevented from taking it by the spectacular bayonet charge of the 36th Australian Battalion. In the two weeks following this action the Australians were relieved by two British divisions. Then on April 24 Villers-Bretonneux fell to a German assault supported by tanks. At 10.00 pm that night the Australians launched a counter-attack and shortly after dawn next morning the town was again in Allied hands.

On the high ground to the north of the village stands the Australian National War
Memorial and Cemetery. The Memorial is a massive structure whose walls list the many Australians who have no known grave. Its centre is surmounted by a tower from which panoramic views of the battlefield can be obtained. To the west the ground slopes away in an endless series of green and brown fields until one sees the haze of Amiens in the distance. To the south, on the next ridge, lies the village. To the east the chalk streaks in the fields outline the German trenches. The cemetery is beautifully kept. We walked slowly up the steps from the road to the gates and through the endless rows of white headstones to the memorial. We stood looking at the names on the walls and just gazing at the surrounding countryside until the shadows of late afternoon told us it was time to move on.

We spent that night at St Quentin and next morning headed for the scene of the cruellest battle of the war, a battle that dragged on for ten months: Verdun. Initially the Germans confined their assault here to the right bank of the Meuse and their plan placed great emphasis on artillery. They aimed to bleed the French white, to draw them into a battle in which they would be obliged to fight to the last man. The French defence was based on a series of forts arranged in concentric rings on the key hills that surrounded Verdun. They were mutually supporting and had their own artillery. However, with the lack of foresight typical of the generalship of that period, the French High Command stripped the forts of all but a few of their heavy guns just before the battle. By the end of 1916 at least seven hundred thousand men had fallen along the fifteen miles of front.

We entered Verdun along the last few kilometres of the road from Bar-le-Duc. In 1916 this road was the only means by which French reinforcements and supplies could reach the front. Jammed with traffic and packed with endless columns of marching troops it achieved immortality as the ‘Voie Sacree’. Wreathed helmets on the kilometre stones reminded us of its significance.

Today Verdun seems peaceful enough as the Meuse winds its way lazily through the town. The skyline is dominated by the Victory Monument which has been built into the old town walls. An enormous flight of steps leads up to a huge pillar surmounted by the figure of a knight resting on his sword. Underneath, a small crypt houses the ‘Golden Books’ in which are inscribed the names of all those who fought at Verdun. There is an interesting museum in the Hotel de Ville where we saw
some of the orders issued by Petain and Joffre appealing to the patriotism of the French soldiery.

Next morning we commenced our tour of the right bank battlefields. North-east of Verdun lies Fort Tavannes, one of the fortifications in the innermost concentric ring. Although we had been told it was no longer worth a visit the remains of the fort, rising ghostlike out of the undergrowth, provided a grim introduction to the battlefield. The ground is covered by a dense growth of bushes, impenetrable in parts and it is dangerous to wander off the tracks. Every inch of the earth is pockmarked. As we peered into the gloomy depths of the fort we understood why the Verdun battlefield is one of the most depressing parts of France.

We left Tavannes and followed the road to Fort Vaux, passing a memorial that marked the spot where sixteen resistance fighters were shot by the Gestapo in 1944. Vaux was a critical point in the French defence. The eastern anchor of the outer ring of forts it enfiladed Fort Douaumont to the west. Although the Germans had captured Douaumont in the first weeks of the battle they could go no further until Vaux fell. They reached the superstructure on 2 June 1916 and for the next five days the fight continued in the pitch darkness of the underground passages of the fort. At ranges of less than five yards ricocheting bullets inflicted horrible wounds. Barricades were erected to stifle grenade explosions. The Germans used flame-throwers, adding to the asphyxiating atmosphere of cordite, smoke and cement dust. Under these conditions they could advance only five or six yards per day until finally an acute water shortage forced the defenders to surrender.

As we drove up the ridge we saw, silhouetted on top, what appeared to be a large rock, gnarled, pitted and rugged. This was Fort Vaux. Months of incessant bombardment by heavy calibre shells have made it unrecognizable as a military fortification. It looks as though tons of concrete have been poured onto the ground and allowed to settle in a shapeless mass. We climbed onto the remains of the superstructure and looked out over the battlefield. In the distance, to the north-west was the squat shape of Douaumont. We were struck by the numerous ravines and ridges, now covered with trees and secondary bush and we appreciated the ideal forming up places that they must have been.

It was the interior of the fort that made the biggest impression on us. We saw the Commandant’s office and the tiny first aid post that had overflowed with casualties. The passages in which the fighting took place were too small for me to stand upright and I could easily touch the walls on either side with my outstretched arms. Exploding grenades and ricocheting bullets have left countless scars. Everything is damp and we shivered from the cold. As we made our way through these dimly lit passages we could only wonder at the tremendous courage and tenacity of both sides.

About two thousand metres to the north of the fort lies Vaux village, one of the nine completely obliterated during the course of the battle. The site of the village is marked by an imposing monument from which we looked up at the steep ridge crowned by Vaux fort. On 6 March 1916 the Germans swept through Vaux and almost reached the fort before they were repulsed.

The memorial museum of the battle was our next stop. Its highlight is found on the lower floor, a reconstruction of three hundred square metres of the battlefield as it looked in 1916. We saw the earth pitted with shell holes, the crumbled trenches, the smashed shelters and the scattered weapons and pieces of equipment. Endless artillery bombardments turned the soil into a very fine sand and the battlefield resembled a vast sea of sand dunes. Indeed the vast majority of casualties at Verdun were caused by artillery.

One hundred yards to the north of the museum is the site of Fleury, a village that became a symbol to the French. Two months of incessant fighting reduced it to a white smear on the ground and today, Fleury has been marked out as it was before the battle. We followed the tracks that were once streets through the shellholes. Signs indicated the site of the bakery, the butcher’s shop and so forth. It was a strangely moving experience.

A short distance to the west of Fleury lies the Froidefertre Redoubt, encircled but not captured by the Germans in their last great
offensive at Verdun. On the other side of the road is the subterranean command post known as 'Four Chimneys'. This was besieged for several days, the Germans dropping grenades through the four ventilator shafts. Today a small shelter covers each of these 'chimneys'. We climbed down the steep slopes to the entrances of the command post. Inside we could see the smoke-blackened walls and the scattered rubble and it was easy to imagine the stifling, choking atmosphere as the occupants tried to hold out.

Two thousand metres to the north-east and on the same ridge is the famous Ossuaire of Douaumont. A massive building, the Ossuaire is visible for miles around, standing guard over the fifteen thousand graves of the French National Cemetery. It is dominated by a huge tower from which a light shines forth over the battlefield and under which is located a small chapel. The cloisters of the monument are lined with the tombs of forty-six unknown soldiers, each taken from a different sector of the battlefield. The Ossuaire contains the bones of over one hundred thousand dead, French and German. These remains can be seen through ground level windows.

Fort Douaumont is situated a short distance to the east. It was a five-sided structure, about four hundred yards across. Encircling the walls was a dry moat at whose corners were sited concrete casemates from which enfilade fire could destroy any attacker who might try to cross. None of this is recognizable today.
Like its smaller counterpart at Vaux, Douaumont is just another of the incoherent concrete masses that once constituted the fortifications of Verdun.

Standing on the cold, windswept remains of the superstructure, we viewed in silence the panorama of the battlefield before us. To the north were the woods from which the Germans launched their initial surprise attack on 21 February 1916. To the east a French flag flew high above the sinister hulk of Fort Vaux. To the west the hills of the left bank could be discerned. It was easy to envisage the battle unfolding.

The interior of the fort consists of a labyrinth of tunnels and passages. It must be one of the most depressing places on earth. Water drips from the walls and stalactites hang from the roof. On 8 May 1916 a huge explosion buried over six hundred of the German garrison in a casemate on the western side of the fort. We stood looking at their tomb, draped with regimental colours and decorated by wreaths, all dripping wet from the everpresent moisture. Never before have I appreciated fresh air so much as when we left Douaumont.

As the day drew to a close we made a quick trip to the left bank battlefields, symbolized by the aptly named Mort Homme. This is a long ridge which runs at right angles to the river and withering enfilade fire from French guns sited here broke up many German attacks on the right bank. By the end of February the German High Command realized that the Mort Homme would have to be taken. On 6 March 1916 their offensive on the left bank opened and at tremendous cost, the ridge fell to the Germans two months later.

The Mort Homme is now covered by fir trees. Its summit is crowned by a memorial to the 40th Division, emblazoned with the immortal words 'They shall not pass'. The ground has the usual ravaged, lunar appearance. As we walked around the crest the wind whistled through the trees and low, black clouds scudded overhead. There were no signs of life and if ever a place can be described as eerie this was it. We felt that we were not meant to be here and we expected the ghosts of soldiers to appear from behind the trees. Distinctly uneasy, we drove off, glad to leave the Mort Homme behind.

Our visit to Verdun was at an end. We had trodden the grounds of one of the mightiest battles of all time, grounds that have hardly changed in the sixty years that have elapsed since. Both of us now understood why the name Verdun is sacred in French history. We also left the Western Front battlefields in France at this point and travelled on to the pleasant little town of Ypres in the north-west of Belgium.

The first battle of Ypres took place in October 1914 and it saw the demise of the old British Regular Army. It also gave birth to the infamous Ypres salient. During the second battle of Ypres in April 1915, the Germans made the first use of gas. The third and final battle commenced on 31 July 1917 and constitutes one of the saddest episodes of British military history. It is better known by the title of Passchendaele.

Completely destroyed by the war, Ypres was reconstructed in the same style and according to the original town plans. Thus the Grand Place is again dominated by the Cloth Hall, now housing the Salient 1914-1918 War Museum. Across the courtyard is the magnificent St Martin's Cathedral opposite which stands St George's Memorial Church, erected in memory of those who fell in the salient.

For us however, the highlight of our visit to Ypres was located on the eastern side of the town, a short walk from the Grand Place. It was the Menin Gate, built after the war to commemorate the fifty-five thousand Commonwealth soldiers who died in the salient and have no known grave. Their names are inscribed on the inside of the massive archway, on the terraces and on the walls of the stairways. The lists seem endless and many names are Australian. The road underneath was the artery along which thousands of soldiers made their way to the salient beyond. Every night at 8 pm traffic through the gate is halted and the Last Post is sounded, followed by one minute's silence. In Ypres they remember.

We returned to the Grand Place and caught the bus to Passchendaele. Situated astride a ridge about five miles north-east of Ypres, it is a picturesque little village with red-roofed houses and trim, neat gardens. We walked back to where a glade of trees sheltered a
small area of lawn. In the middle of this tiny secluded park stands a small tablet in memory of the Canadian Corps who finally captured Passchendaele village in November 1917.

A rather long two kilometres later we stood at the gates of Tyne Cot British Cemetery and Memorial to the Missing. Tyne Cot contains the greatest number of graves of any Commonwealth war cemetery, over twelve thousand in all. Two Australian VCs, Sgt L. McGee, 40th Bn AIF and Capt C. S. Jeffries, 34th Bn AIF are buried here, close to the spot where they were killed. On the panels of the memorial are listed the names of thirty-five thousand soldiers who fell in the salient in the period from 16 August 1917 to the end of the war.

At Passchendaele the Germans used strongpoints and concrete pillboxes, unconnected but mutually supporting and sited in great depth. Hence the front-line could be covered effectively by a relatively small number of men, saving the remainder for prompt counter attack. This defence system, in conjunction with the muddy, water-logged ground made the offensive a nightmare for the unfortunate infantry who participated. On many occasions these were the soldiers of the ANZAC divisions and they performed heroically under the appalling conditions.

The countryside around Tyne Cot is littered with the remains of these bunkers and three are located within the cemetery itself. The Cross of Sacrifice is mounted on the largest, a blockhouse captured by the 2nd Australian Division. From the base of the Cross I could see how this main bunker supported the other two and how an attack on any one of these positions would result in a pitched battle. Looking to the horizon I realized the importance of Passchendaele Ridge for it overlooked the British positions in the salient and in the distance the spires of Ypres were clearly visible. Today, cows graze and crops grow in fields which were once a muddy morass. We spent some time wandering through Tyne Cot Cemetery, reading the details inscribed on the headstones. On few occasions have senior commanders been so completely out of touch with the reality of conditions at the front.

This marked the end of our tour of the battlefields. Several impressions remain. I remember being introduced to an old Frenchman who owned an ancient American mine-detector and whose hobby was collecting war relics. As his farm was just outside Pozieres he was ideally placed to pursue his interest. As we entered his backyard I was staggered by the sight of huge piles of shells, rusty bayonets and helmets, broken waterbottles and so forth. I did not ask him how much of it was live for I dreaded his answer. I declined his offer of a few light shells and some rifle ammunition but I did accept an Australian rising sun badge that he had found near Mouquet Farm. On the serious side though, it must be remembered that many French children are killed and maimed every year by these dangerous relics of war.

Then there were the cemeteries. Scattered all over northern France, they seemed innumerable. The most common inscription on their headstones reads ‘A Soldier Known Unto God’. We were staggered by the endless lists of soldiers who have no known grave. The walls of Menin Gate, Tyne Cot, Thiepval and the Ossuaire of Verdun are covered with their names.

We were struck by the extent of Australia’s involvement. From Ypres to the Somme, almost every cemetery, even the smallest, bears eloquent testimony to the cost of Australia’s contribution to the final victory. We were deeply impressed by the French people we met in cemeteries and villages for they were conscious of the sacrifice made by our sol-
diers. At the same time we were saddened because these people seemed to have greater respect for our fallen than do our own countrymen.

The battlefields are quiet now for the sounds of war have gone. Birds sing, cattle graze, crops grow. It is hard to imagine them as the oozing quagmire they once were. For me a dream had come true. I had seen first hand places that I had read about for some years and I was able to relate events that I had studied to the ground on which they occurred. I had trodden the paths of history. It was an experience I shall never forget.

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A THEORY OF PORT VISITS

O Captain! My Captain, our fearful trip is done,
The ship has weathered every rack, the prize we sought is won,
The port is near, the bells I hear, the people all exulting!” — Walt Whitman

A VALID Theory of Port Visits will be a long time a-coming because the data are diverse and anecdotal in nature. This paper aims to draw together a body of information on the conduct and practice of port visits in the expectation that others will take up the torch and carry it on to the point at which the young officer can be presented with coherent guidance in this important field; much in the manner that general, administrative, and operational orders cover the other areas of naval activity. As ultimate success in a port visit is a low probability event not susceptible to much statistical analysis, guidance such as this can do no more than reduce the odds against.

The young aspirant today, having been seduced by the glamour of the naval calling and the prospect of foreign travel, soon discovers that he can only expect — if he is lucky — a short series of four day stands on a 'group deployment' once per 'SL career option break­point'. There are many views on the optimum length for a port visit and some of these are discussed below, but it is certain that naval personnel now miss the lengthy foreign commissions of the past, the maintenance periods in foreign dockyards, graceful troopship voyages, and other such opportunities. The young officer must be efficient and well-organ­ised in his approach if he is to achieve the aim in four days. The costs and difficulties of recruitment and retention are such that we must do all we can to assist his achievement; so may this advice, distilled as it is from the flames, rubble and tears of too many disastrous failures, smooth the path to success and allow him to look kindly on the supporting facilities which contributed to it.

Commander G. F. Liardet
Royal Navy

Preparation

A port visit normally starts with a preparatory phase which is principally an information gathering process. The Fleet Port Guide will yield useful basic data, but is dry reading and not helpful in our particular field of endeavour. A ship should always send a liaison officer on ahead; the aim of every aspirant should be to be that officer. To gain the coveted post requires application. You must do your duty excellently well, train up a competent deputy, and curry favour with the Executive Officer. You must pretend a good knowledge of the area or the actual port. Create a fictitious aunt who runs a finishing school for young ladies of the nobility. Learn the language. Build up credit in the duty roster and then foreclose on your debtors.

The Liaison Officer must be carefully briefed to look after the interests of the other aspirants as well as the routine matters of guest lists, bus tickets and football grounds. Imagination is important, for besides researching into tourist agencies for maps and brochures, obtaining local staff nominal lists of British-based companies (thereby locating English-speaking misses), visiting the teachers' college and nunnery, he should, for example, consider the newspapers for the indigenous version of:

3rd gl sh flt £10 pw 01-123-4567

The information concealed here is that in the district shown by part of the telephone number there are two girls with a flat from which Mum can be presumed to be absent. There is a spare bed in this flat. It is not an over-expensive scene. Given time and transport it should be possible to ease ten or twelve such opportunities on behalf of your sister before the ship arrives — liberally deploying previously prepared gold-embossed invitation cards should things work out. Don't forget to record information like addresses, names, availability of a car and so on in your little book. And so by care and skill the liaison officer can
feather his nest as well as those of others. But do not overdo it — a Royal Marines officer was once landed from a Persian Gulf frigate to act as advance liaison officer at Mombasa while the ship went to the Seychelles — hibiscus infested sailors’ paradise. He kicked and screamed, but his messmates were merciless, and themselves regretted nothing until the Kilindini K-boat brought off his limp and ashen form, a military man totally destroyed by excess. The full story of his detached duty will never be told, but the wary and speculative reserve with which all other mess members were treated during the subsequent Mombasa AMP indicated that here was a liaison officer who had over-reached his terms of reference.

**Execution**

*The official cocktail party*

Look here upon this picture and on this. The ship’s Official Cocktail Party, gay with flags and bathed by the westering sun, is populated at this moment in time only by the ship’s officers — all smart and neatly brushed, self-administering the warmer broadside and listening to the Executive Officer warily setting forth his rules for the conduct of officers at such functions. ‘Official cocktail parties are not for fun...’ he begins.

Some few moments later, following behind Mum and Dad, she appears in a white organdie dress, a flash of broderie anglaise, and white gloves. Her lambent eyes fortuitously meet yours, reason leaves you, and you are lost. Let us call her Margharita. What is not realised is that Margharita was not created for your benefit yesterday, but has a past and a future. She is here to tease Antonio, who is not on the British Naval Attaché’s cocktail party circuit. Antonio is nearly two metres tall, has dark curly hair, flies his own light aircraft, is first string at the local tennis club, and is currently behind the warehouse on the jetty grinding his perfect white teeth, looking at his slim gold Patek Phillipe watch, and drumming the nails of his other hand on the hood of his Alfa Romeo Giulietta Super Sprint. Margharita knows this, and will make it up to him later in the evening. Strike One. Margharita is also very beautiful and very charming. Her engagements over the next few days include six hours voluntary old peoples’ home work, local flower festival beauty queen, three cocktail parties and a water-ski picnic to which you are not invited. Strike Two. The Executive Officer, urbane at the gangway, has noticed with the cynical bloodshot eye he keeps in the back of his head that you have made a flagrant dash to trap this dishy vision in defiance of his orders to chat up the oldies. He jams your leave for two days. Strike Three and Out.

Now watch the Senior Engineer. He manoeuvres expertly under forced draught with one boiler banked and fixes Mum her favourite drink. He ascertains that she is a bridge player and asks to meet her friends. Soon there is a ring of gaiety and laughter as he deploys his slightly risqué jokes. By 2000 he is up homers. By Saturday morning he has been practically forced into bed with the handsome recently divorced cousin down from Bogota (‘it will do her good...’) and on Sunday morning by the pool decides he is in love. Good luck to him, he was nice to them all. Notice how he skilfully enlarged his base of opportunity at an early stage. At such functions it is always worth taking some trouble with the conversation that you project, for people of sufficient eminence to be on the Ambassador’s list wouldn’t be there if they were unable to recognise a brash young man on the make, especially one who allows his eyes to wander about when you yourself are talking. But do not rely on decent treatment of Mum and Dad yielding the keys of the Cadillac and then the daughter. A randomised sample of thirty-two matrons at three official functions held at consecutive seaports on the East American seaboard showed that only ten had daughters, of which eight were already married. Only three daughters (married or unmarried) were in the same port. None of these were blonde. None had a Cadillac. All granddaughters (where held) were under age.

The moral, therefore, is to be your usual bright, polite, self. Cast your bread upon the waters. Broaden your base. Eschew at least the six most attractive young ladies, maybe even a higher number.

**The Optimum Length**

The shape and texture of a port visit is determined by its duration. There is a readily apparent difference between a fuelling stop at Lyness in Orkney, and a four week repair and
maintenance period in Hong Kong; or between an exercise briefing at Den Helder and Kiel Week; but the gradations between these extremes are less well understood and therefore worthy of descriptions in a study of this nature.

**One Day Visit**

Hardly worth the name of Visit. Only the Port Watch gets ashore. Useful for haircuts, telephone calls, buying picture post-cards towards the globe-trotter image.

**Two Day Visit**

Starboard Watch gets ashore and makes the same errors as the Port Watch; daymen have time to buy rabbits and do a little sightseeing.

**Three Day Visit**

Begins to qualify as a Port Visit proper. Structured approaches to locals become worthwhile. Official cognisance of the visit as a Visit will probably be taken by shore authorities. The Aim may be achieved under coup de foudre circumstances. Unfair to the Starboard Watch.

**Four Day Visit**

Fair to both watches. Qualifies as a visit within the meaning of the act and calls up the need for an advanced liaison officer and some detailed planning. Official calls and the official cocktail party must be compressed into the first day. Towards the end, people ashore recognise you when they see you again, and may even remember your name.

**Five Day Visit**

Aspirants find themselves with enough evenings free from official entertainment and obligatory self-destructive runs ashore to throw a private party of an informal nature. Official Cocktail Party on the first night, private party on the fourth night. This gives enough time to build up the guest list and leaves one free evening to capitalise on developments. Fatigue makes its first appearance in the dog watches of the fifth day.

**Six Day Visit**

We are now entering Big Trouble Country. Some experts feel that in a six day visit the official entertainment should be spread over two days, with the Official Cocktail Party on day two. Certainly this gives the DLC and the gangway staff something to do on two days, and allows the organisation to salt the official guest list with the product of its own investigations. Remember however that the port was not built yesterday, like one of those stand-up cut-outs in a children's book, for your entertainment; and that to modify the guest list can sometimes cause the most terrible offence. Be guided by the local Flag Lieutenant, and tune up the liaison officer's sensory perception equipment. No one profits from a serious social mis-match under such circumstances and a heavy foot through the web of local customs and relationships can result in a visit memorable only for the sightseeing and the opportunities for sleep.

Ashore, one begins to build relationships, share little jokes and experiences, repay hospitality, get involved. They remember your name. You recognise the car, and can dial the telephone number without looking it up.

**Seven Day Visit**

A two-day journey up-country can be fitted in without detriment to the overall pattern of the visit. Those prone to alcoholic remorse will have had to pace themselves carefully by Day Seven. The physique begins to adjust to a daily routine which allows sleep between 4 p.m. and the hot bath at 6.45 p.m., boosted by cat-naps taken in the early morning on the Star Ferry, along the Bukit Timah, or in trains from Cape Town and Perth to Simonstown and Fremantle.

**Eight Day Visit**

Eight days represents a watershed or climactic in the nature of Port Visits. It is possible to do a Seven Day Visit in one powerful burst without suffering bankruptcy, nervous exhaustion, or protein deficiency. Anything longer requires a different pace, like the contrast between running one and three miles. Retrospectively, many observers have said, after experiencing visits of eight days or more, that they should without doubt have sailed on the seventh.

If all has gone well, either she, or you, or both, will be in love by the eighth day. Sail now Ulysses, or you are lost!

**Nine Day Visit**

Human memory is short, and by the end of the nine day visit it seems to those ashore
that the handsome, irrespressible, lovable crowd from H.M.S. Nonesuch have always been around. The love becomes the tiniest bit possessive — ‘Why did you not ring me?’ — ‘I was on duty’; ‘I had a previous engagement’; ‘I did not see you in the Mandarin as we arranged’.

Ten Day Visit

Somewhere towards the end of a visit lasting ten days the world starts to crack up on our young aspirant. He looks at another girl and gets his face slapped. The husband finds out. He runs suddenly and violently out of money. His Division take to fighting with the police, and his Head of Department notes that his sub-department functions neither before stand-easy nor after. It would be prudent to sail now.

Eleven Day Visit

A day of gloom and recuperation. A day of self-examination and unanswered shore calls. Devotion to duty, remorse, exhaustion. Sail without regrets.

Twelve Day Visit

The scope of a Twelve Day Visit allows the career heretofore described to run its course and be replaced by the tickle of re-awakened curiosity and adventure. Perhaps it is payday, or a benevolent Deputy Supply Officer has (for a consideration) advanced a small loan. The lovers’ tiff is mended, and the affair is thus warmer and reinforced. Or perhaps another Belle Dame, who has been waiting in the wings, seizes herself a piece of the action. The pit is yawning at his feet, he must sail today.

Thirteen Day Visit

Nearly two weeks of hyperactivity of one sort or another have induced a rarified and elevated state of mind in our young man. He is not quite rational and becomes prone to making rash promises. His sunburn begins to peel. The lady is seriously beginning to look to the future, even perhaps flying round with twigs in her beak. What shreds of common sense remain indicate that the ship should instantly sail, otherwise the Fatal Mistake will be made.

Fourteen Day Visit

This is the usual limit allowed by the wives and families of the Mobile FMG and thus probably terminates the AMP and the visit. About time too, because any extension beyond fourteen days almost guarantees the Fatal Mistake.

The Fatal Mistake and Other Cautionary Tales

There are two types of Fatal Mistake, akin in nature and effect. The first is to induce the young lady to follow you to the next port. The potential for disaster and embarrassment following from such action is limitless. The Captain beetles his brow at the Official CTP (undignified manoeuvres have been necessary to get her asked) and says ‘Haven’t we met before somewhere?’ It is raining, she knows no-one, you find you do not love her, and being a gentleman you are stuck with the air fare and the hotel bill. Sad, desperate, disaster.

The second Fatal Mistake is to go one step further and propose marriage, or even get married. Again, being a gentleman, you have not said that you love her unless you actually do, but even if you do it is mandatory to control yourself and wait until the foreign tour is over before viewing the young lady in snowy Surbiton through the baleful eyes of Mum, and then making any promises. Remember that many foreign countries have rather stringent laws concerning breach of promise.

The Casanova of International Repute

It is not a good idea to run a competition among your mates for the highest score under some such formula as this: (No. of young ladies) x (No. of ports followed to) x (Thousands of miles followed) as this breaks nearly every rule in the book, displays a degree of casual inhumanity hard to beat, and hopefully will bring you the worst of bad luck.

The Grimmies’ Trophy

Dwelling further on avoidable mistakes, another symptom of ill-mannered arrogance towards the Fair Sex is the Grimmies’ Trophy. Usually a grotesque Eastern African wooden idol of some sort, often with the characteristics of the Venus of Willendorf, this trophy is awarded to the officer popularly voted to have squired the least attractive lady of the previous night. How such humour can misfire is illustrated by the following story: at an innocuous little thrash at some port of call the young lady looked up at the young man during a
pause in the music and said 'You are running a Grimmies' Trophy, aren't you?' Much abashed and reddened with embarrassment, the young man admitted it. 'Well, that's fine', she said, 'so do we, and I've won'.

Another tip; don't award the Trophy to the Captain.

**Transportation**

The success or failure of a port visit is to a remarkable extent dependant on the availability of a motor car. The word bruited among the potted palms of the Marsa Club, and along the front from Pieta to Sliema, was always 'All men are beasts, but some have transport'. You must have a motor car, and even one hired by a syndicate is better than none, lose friends how you may. But mind how you go, there is one Lothario who even now has a permanent hitch in his double de-clutching because she, unimpressed with his devil-may-care speed and skill, said 'I hardly ever feel sexy when I'm terrified'.

When abroad, always get a native to order your taxi for you — if you can persuade her — as this will often reduce the price. Always ask the price before the journey starts, and know your way.

**Some further do's and don'ts for the aspirant**

**The White Ensign Club**

Never try and achieve the Aim under the White Ensign. Besides being illegal in a big way, it is a certainty that you will be rumbled by the Fresh Water Tanky, the HQ1 patrol, or the Bosun’s Mate. This is bad for your image and that of the other officers.

**Wives**

If wives are present in the port, comport yourself with decorum towards them even if you are a bachelor. A commission can last a long time, even these days.

**Disappointment**

Never show disappointment — it is a sign of weakness and is ungentlemanly.

**Outshifting**

Never be outshifted by your opponent. Quite often it is so dark in the wardroom that the nice family who has asked several officers (more than you would like) up homers would not recognise them in daylight — so the process of rapidly changing from uniform to baron-strangling rig can be important if you are to be first into the Cadillac and away.

Lay out the suit and the tie before the party; if you are uncertain lay out the white shark-skin tux as well. Mess undress to tux can be achieved in nine seconds.

**Conclusion**

There is no conclusion to all this. Information continues to be amassed, and in due course will be distilled into a series of conclusive maxims. Meanwhile get hold of a red-hot poker, and for your comfort, burn the following motto into the woodwork of your cabin:

THE FIRST TURN OF THE SCREW CANCELS ALL DEBTS

* * *

Experience is not what happens to a man. It is what a man does with what happens to him.

—Aldous Huxley.

Reviewed by Lieutenant M. P. Fretwell, Royal Navy (Retd.).

JOHN WINTON has established a fine reputation for himself as a writer whose agile talent spans the range from light comedy to the more sober works of historical study. His latest book, Air Power at Sea 1939-45, is a documentary work which maintains the high standard we have come to expect.

In 1939 there were many people, on all sides, who regarded the aircraft as a 'passing irrelevance'. In this book, Winton analyses the role of air power in World War II and demonstrates how the sceptics were pressured into a grudging acceptance, and finally a full appreciation of its decisive significance as witnessed by the 3rd Fleet's operations off Japan in July and August 1945, which were 'the most polished professional aerial performances of the war at sea'. In a finely balanced overview of the theatres of war in which air power was a crucial factor, the author draws upon examples from both Allied and Axis deployment of aircraft in a variety of offensive and defensive tasks. Winton examines the campaigns in Norway, the Atlantic, the Mediterranean, the Arctic and the Pacific. With an admirable economy of detail he gives succinct but impressively adequate accounts of specific actions to substantiate his case, the highlights of which are Taranto, Pearl Harbor and Leyte Gulf. Of considerable interest is the section devoted to the Kamikaze force, 'the tissue-paper dragon', which so perplexed Western psychology, but which also wreaked so much havoc upon Allied shipping.

However Air Power at Sea is not merely a catalogue of the success and failure of aircraft in action, nor just a record of tactical and strategic moves and countermoves in the fight for supremacy. The effectiveness or otherwise of the aircraft depended upon their crews and the men who planned their operational missions, and Winton is always conscious of this human element. Unobtrusively, but capturing perfectly the excitement, bravery, fear and misery of those flying the planes, he includes a number of first hand experiences. We are reminded also of the bad weather, poor communications, inexperienced crews and defective and often obsolete machinery which frustrated and bedevilled the tacticians' calculations.

Attention is focused briefly on the personality clashes at command level over priorities and strategy and, with the advantage of hindsight, the author points out the errors and lost opportunities which hampered both sides.

The text is more than complemented by the magnificent collection of photographs, many full or double page, of personalities, ships, 'action' shots, and, not the least of aircraft. For these alone the book must be regarded as a collector's item. For the technically minded, Winton has furnished performance details for all featured aircraft. For those with a less technical bent, the author, obviously unable to repress his undoubted sense of humour, has embellished the text with a number of amusing Wren cartoons with jingles that describe the distinguishing characteristics of the aircraft depicted. The book is comprehensively indexed, and to assist the reader in following the action there are well-produced maps inside both front and back covers. Clearly in this short work Winton cannot give more than an outline of his subject. However, for the reader who wishes to investigate more deeply, Winton includes a select bibliography which would provide ample detailed material of the areas and campaigns to which he refers.

Very few would argue against the vital role that air power had, and still has, to play whether in an offensive or defensive capacity. To this extent Winton may be 'preaching to the converted'. But should there still be doubters, his book will give some food for
thought. Regardless of the stand taken, a reading of this well-produced book will be worthwhile, rewarding both to those steeped in the history of World War II and to the uninitiated.


CONTROVERSY continues to this day, concerning the effectiveness of the Allied Bomber Offensive against Nazi Germany but its catalytic effect on her aircraft production and research is indisputable. The point is well illustrated by comparing the combined 1939 and 1940 production of 12,765 aircraft with the 1944 total of 40,593 aircraft. The 1944 figure included 1041 turbo-jet and rocket powered aircraft, one of which was the truly remarkable Me163 Komet fighter, brainchild of the equally remarkable Alexander Lippisch. This book is a warmly written story of one pilot's experiences, after July 1943, with test flying, operational training and combat flying of the Me163 and with the technical and flying personalities he came to know.

Mano Zeigler's account of his and his colleagues' experiences benefits from the authors' gifts of understatement and humour since they heighten the reader's appreciation of the unsurpassed courage and fortitude required to fly the Komet. The Me163's incredible speed and climb, heavy armament, small size and very explosive tendencies made it akin to flying an anti-aircraft shell and also made it without peer for causing the most bizarre and gruesome fatalities; as an illustration, Zeigler gives an eye witness account of one pilot who was dissolved by leaking fuel.

The book includes thirty-four pages of well chosen illustrations and an eleven page technical appendix which can be appreciated by general readers as well as the rivet-counting brigade.

Rocket Fighter is one of those books most readers will finish with reluctance and which will contribute to the steadily growing impression that the qualities of humour, bravery and irreverence towards authority were shared by aircrew on both sides during World War 2.


RONNIE HARKER must be a reviewer's delight. Here is a well produced book, containing a multitude of clear and interesting photographs and written in an easy free-flowing style which makes one want to read on. Mind you, it's not a book for everyone — if you can't abide aeroplanes, consider aero engines to be mere aeronautical appendages which should be tolerated as a rather noisome necessity, and have absolutely no interest in an intimate view of British history from the 1920s on — then you would be wasting your time and money on this book.

In his introduction, Mr Harker states his reasons for writing the book as both repaying a debt of gratitude to Rolls-Royce and as shedding a personal light on some controversial projects of our time. He most certainly achieves the latter, but goes even further than his stated aims. In tracing the changes in Rolls Royce from 1925-1971 he depicts quite clearly the move from a small, peaceful family concern to a large public company with all the associated industrial problems. Along with this is the change in leadership style from the magnetic, personal leadership of Lord Hives (then Mr) to the modern management school-exemplified by Lord Coles who switched from Unilever to Rolls Royce in 1970 just before the crash. I'm not sure that I agree with Mr Harker's implied contention that the company functions today because of the foundations laid by the personality of its former leaders, but I join him in mourning the passing of this intimate leadership style.

Typical of the book is the way he gets the atmosphere of the age. For example, in the gentlemen's club days of the RAAF (Royal Auxiliary Air Force) he describes how Pilot Officer Harker and his CO were berated by AVM Leigh-Mallory their AOC: the rather odd twist being that his CO on the mat with him was Squadron Leader Lord Sherwood who just happened to be Joint Under-Secretary for Air at the time. I can't see much point in working through all the points of interest,
however; suffice to say that it covers the rav­nings of RR representatives around the world during World War II, the sometimes futile efforts to secure orders after the war and some very interesting tit-bits on why various aircraft ended up with the engines they did. His views on why the Australian Mirage didn’t have the Avon fit and his project to fit twin Speys in the Harrier, are examples.

There is one recurring theme worth mentioning as it is as true today as ever, yet all too often neglected. That theme is the necessity for a good working relationship between the company and the customer which must be built on a willingness by the company to change and modify their wares, instruct the user on operating procedures and keep the personal touch going from squadron level to Air Ministry.

Historians may be able to pick some (laws with Mr Harker’s statements, and grammarians his syntax, but as a personal writing which ties the web of history together with anecdote and behind-the-scenes revelation there is little to find fault with. I wouldn’t expect to see this book listed as a best-seller, but I would certainly recommend that you pick it up from the library shelf if you’re feeling like a little entertaining education.

* Available in Australia through Lothian Publishing Co. Pty. Ltd., 4-12 Tattersalls Lane, Melbourne, 3000.

PANZER BARON — THE MILITARY EXPLOITS OF GENERAL HASSO VON MANTEUFFEL, by Donald Grey Brownlow, The Christopher Publishing House, North Quincy, Massachusetts, 1975. (This copy from Napoleon’s Military Bookshop, Pitt Street, Sydney.)

Reviewed by W02 A. H. McAulay
HQ FF Comd

DESPITE the victories achieved by the German panzer formations in World War Two, relatively few panzer commanders are well-known in the West. Both Rommel and Guderian have received a large amount of attention from writers, and others such as Rundstedt and Kleist are fairly well known.

Now, Mr. Brownlow has produced a book on Baron Hasso von Manteuffel whom Hitler greeted as late as September 1944 as “a general who can win battles”. Baron von Manteuffel’s military career ranged from service as a Lieutenant with the Prussian 6th Division in World War One to the command of the Fifth Panzer Army in the Ardennes Offensive in December 1944. After 1945 the Baron entered politics in West Germany.

He served under Guderian when the latter commanded 2nd Panzer Division in 1934, but did not see active service in World War Two until the invasion of Russia. During the campaigns in Poland, France and the Balkans, the Baron commanded an Officer Training School.

Finally he was given command of a Panzer-Grenadier Battalion in 7th Panzer Division. From there he rose to command the regiment, then a battle group of the Division, fought in Tunisia, then again in Russia, commanding 7th Panzer Division, commanded the elite ‘Gross-Deutschland’ Division in Russia and in East Prussia, and was selected by Hitler to command 5th Panzer Army for the Ardennes offensive.

For his services, Baron von Manteuffel was awarded the complete series of Iron Crosses to include the Knight’s Cross with Oakleaves, Swords and Diamonds.

With all this service to draw on, Mr. Brownlow’s book is disappointing in that only 116 pages of the 176 page book deal with World War Two. Thirty-one pages are devoted to photos, and six are maps. For some reason, the maps are in German. So, unless the reader has some knowledge of German which includes military terminology and abbreviations, or perseveres with a dictionary, the maps are of less than full value as a picture complement to the text.

Mr. Brownlow spends over seventy pages on the Baron’s early life, World War One service and between-the-wars service, with a relatively detailed description of the Nazi rise to power, Hitler’s purge of the SA and his manipulation of the Generals. Similarly a great deal of the text about World War Two describes the overall situation in relatively fine detail while the subject of the book seems to be mentioned only in passing.

However, as the book includes the words “Military Exploits” in the title one would
expect more attention to be paid to the actual campaign experiences. Tunisia is dismissed in four pages; May 1942 to May 1944 in ten pages of text, and the Battle of Targul Frumos in which “Gross Deutschland” destroyed over 200 Russian tanks in three days of defensive fighting against two Armies and ten rifle divisions is dealt with in one page.

The photograph captions are also disappointing. When the same people are shown in many of the photographs, it would provide that extra item of interest if those persons were named. Several subordinate commanders mentioned in the text, and could appear in the photographs.

Manteuffel the man and soldier has not come alive under Mr. Brownlow’s pen as have Rommel and Guderian under the pens of their biographers. Hopefully, some other historian will flesh out the bare Manteuffel bones of Mr. Brownlow’s book.


SEA BATTLE GAMES is an introductory manual concerning — in Mr. Dunn’s words — “the art of naval battle gaming”. The book covers all aspects of the art from simple two ship actions by two people lasting about half an hour, to vast complicated world war-type actions which involve up to a score of people and may be played over several months.

Mr. Dunn has divided his book into two recognisable parts. The first part provides a general background to sea wargaming: the second part deals with different types of action from different periods of history. In the first section Mr. Dunn suggests that naval wargaming is more than a juvenile pastime of pushing toy ships around the floor. Indeed, to be proficient, it is a game requiring more thought and research than chess or the recognised ‘adult’ card games. In this section he also discusses the rules required to prepare the game, and he provides a list of points which need to be researched before a set of rules can be written. Mr. Dunn completes the first part of his book by discussing the types of models available to the would-be Wargamer.

Unfortunately, most of the commercial types are only available in the United Kingdom, but there are many good tips for building one’s own models. As the best scale sizes are given, an afternoon spent searching the hobby shops should produce satisfactory results.

In the second part of the book Mr. Dunn deals with the rules for fighting battles. In turn, he looks at the Napoleonic period, 1800-1860, the pre-Dreadnought period, 1860-70, World War 2, 1939-45, and a hypothetical world war, from 1945 to the present day. The period 1870-1939 has no separate rules because “the main differences between the periods is simply increases in rates of fire, gun ranges and so on.” The World War 2 rules, modified as necessary, are suitable for earlier period battles. The book closes with a chapter dealing briefly with the pre-1800 period and includes the Armada, the Anglo-Dutch Wars, Lepanto and the Roman and Greek battles. No rules are included, but the reader who intends fighting one of these naval battles should be able to write his/her own based on those described in earlier chapters.

The author achieves his aim most successfully. The book is concisely written and easy to understand. It is well illustrated with line diagrams and photographs of model ships, but is somewhat marred by a number of typographical errors and an inadequate bibliography. The book is the fourth on Wargaming by Model and Allied Publications but their first concerning sea warfare. It is recommended reading for all those interested in the intricate art of Wargaming.


Reviewed by
Lieutenant Commander R. M. Jones
Royal Australian Navy

THE aim of this book is defined by the subtitle ‘The History and Strategy of Maritime Empires’. The author states he intends to produce a resume of all naval history — not in the narrow sense of ship and fleet movements or naval actions but maritime history and its interaction with geographical and economic forces. Expressed otherwise it is naval history from a global viewpoint.
This global perspective is slightly unusual. Judging from the coverage of recent history, specifically the Second World War 1939-45, it is useful. In 42 pages, all the major actions are outlined and the political and military reasoning (and consequences) are explained. This section provides background to the many books and articles available covering the individual battles and actions.

This is not to say the book dwells on recent history. The author's intention is to study and define seapower wherever it has been exercised in the last four thousand years. To cover such a long period — even in resume — needs a substantial book. This volume contains over 600 pages including 30 of bibliography, 13 of maps and 18 of index. Size could be daunting were it not for an unusual arrangement.

The body of the work is divided into seven distinct sections, each described as a 'Book'. Book One is an introduction to sea-power as the author sees it; here he sets out his principle definitions and premises. Books Two to Seven each deal with a period of history. In these, the arguments and reasoning for the conclusions of Book One are presented. In many respects Book One is both introduction and conclusion. The Books cover consecutive periods in history and, except for Book Seven (1945-73), each begins with a chapter entitled 'Ships and Seafaring' establishing the technical setting for that particular phase of history.

Because of the way each Book has been written as an independent unit, the whole work has several uses. The reader with the time can read it through and follow the author developing his conclusions. Readers with narrower interests (or less time) can select a specific Book and be confident that all the information relevant to that historical period is included. Additionally, the book is an excellent reference for the basic historical data — dates of battles, etc.

Many other examples of the varied use of maritime power much further back in history will be found in this book; notable are the development of the conventions concerning neutral shipping and territorial waters or the ideal composition of a coastal navy. It is difficult to think of any aspect of maritime operations in peace or war that is not included.

This book has many uses — as a simple reference for dates, as an exposition of the use and importance of sea power through recorded history, as a summary of the rise and fall of maritime powers, or even as a chronicle of the development, use and demise of a form of naval warfare (e.g. rowed galleys). Used in any of these ways it is food for thought.

A basic premise is that nations of the world fall into two categories — continental and maritime. Continental powers are land based, need standing armies to defend against neighbours, trade predominantly across land borders and do not have much interest in, or understanding of, maritime power. Maritime powers are geographically isolated and do not need standing armies, they have developed economic wealth by using the sea. This dependence on the sea would make them vulnerable to outside interference (piracy, privateering and the like) if they did not maintain standing navies to protect their interests. Such standing navies have policed the world during long periods of apparent international peace during which merchants could go about their business freely. These periods of stability have been periods of naval domination by one power for its own ends: the British Empire is a recent example.

This proposal that continental powers tend to look inland while maritime powers deliberately set out to gain command of the sea is a theme of the book. Command of the sea in this sense must not be confused with the term of 'sea control' now frequently used to describe tactical control of a portion of the ocean; in the historical sense command of the sea meant strategic freedom to send a nation's shipping anywhere at any time.

A concept of continental and maritime powers is historical/strategic in scope and tends to overshadow another hypothesis which only appears at the end of the book but may be more relevant to daily naval life. In the past hundred years two schools of thought have arisen. Oldest is the 'historical' school which maintains that a study of the past history of the competing nations (and of the type of warfare involved) will reveal the available alternatives — a major advocate of this thinking was Mahan. The newer school — the 'material' — contends that current technology can create such national superiority that obstacles which the historical school would regard as important or insuperable the material school will disregard. An example of the two
approaches is the Vietnam War. The material school in the United States was confident of victory while the historical school pointed to the glaring historical mistake of the US, as a maritime power, trying to isolate a country which was not geographically isolated. The North Vietnamese were exponents of the historical approach. 


Reviewed by Lieutenant D. Taylor, RAN

The author’s objective in writing this volume is to provide “an introduction to thinking about the manifold inter-relationship between Navies and Foreign Policy”. Mr K. Booth, the author, is a lecturer in International Politics at the University College of Wales. He has provided the reader with an academic discussion of the role of the Navy and its limitations in today’s environment.

Booth’s basic premise is that during the 20th Century the relationship between navies and associated foreign policies has increased in complexity. Much of this has been the result of the decline of the single nation dominance which is associated with the rise of the Soviet Navy and new emerging nations.

The author has divided his dissertation into two sections. Firstly he deals with navies as instruments of a foreign policy and secondly limitations placed on navies by domestic and international constraints.

Navies he sees as being able in theory to perform three roles:

- Military
- Policing
- Diplomatic.

The military role is what sets the naval ship apart from all others. The author does not hesitate to draw the readers’ attention to the fact that approximately a third of the world’s navies are only capable of performing a policing function as well as the common basic military role.

The Diplomatic Role the author sees as ranging from the threatening use of force, to the more relaxed duty of “showing the flag”. Common to all forms is the continual problem of misinterpretation by the recipient nation. Some third world nations often do not see a warship as a diplomatic instrument but rather as representing the old imperial order with the objective of returning the ex-colony to the bondage of Empire.

The Military Role also is seen as providing results which cannot be easily calculated. Booth does not see a general outbreak, but rather limited, localized operations. He hastens to bring to the readers attention that only four navies have the capability of strategic nuclear deterrence. Thus, automatically limitations are placed on all other navies, which are even further increased by individual national constraints.

The author does not see the relationship between a nation’s navy and its foreign policy as being one way. For example requirements for port facilities mean nations often find they have to modify policy with littoral nations in maritime areas of interest. The Indian Ocean provides one such area with the Soviets attempting to gain friends, such as Pakistan, and in return receive access to their ports.

The second section is devoted to the capabilities of the navies themselves. However, the author is more concerned with factors which limit these capabilities. These factors he sub-divides into two areas, domestic and international. The domestic limitation revolves around competition for dollars, for procurement of hardware, which provides a visible indication of a nation’s objectives and desires. Navies are then further limited by the international arena. Thus the combination of both will determine the objectives of a navy which in turn will contribute to the composition of the navy itself.

The author sees the role of the navies increasing and gaining in importance. This is the hypothesis on which he bases the growing exploitation of the seas resources, in turn is creating a new turbulent period. To the fore will be navies, as Iceland has already shown. The conventional standards are departing and are being replaced by new standards and ideas, such as new “Laws of the Sea”.

In one single volume the author has dealt with a complex subject in a concise manner. However, a major disappointment is that although the text is well foot-noted, there is no bibliography. But apart from this, it would be a worth-while addition to the library of any student of modern naval policy.
A SHORT HISTORY OF ANGLESEA BARRACKS (FOUNDED 1811), published by the Director of Public Relations for the Commander 6th Military District.*

Reviewed by Major P. H. B. Pritchard, AM
District Support Unit, Hobart

This well presented booklet is one of a series constantly issued and revised by various Commanders since 1947 with the current edition being commissioned by Colonel J. D. Stewart, MC. It is the result of a co-operative effort by various officers of the staff who have been given due credit for it. The information came basically from the considerable historical research undertaken by the late Brigadier Max Dollery, MVO, OBE, MC and which was incorporated into brochures produced for beating the retreat ceremonies, and a tourist guide (“Let’s talk about Anglesea Barracks”) produced by the Director of Public Relations for the Tasmanian Tourist Council Inc. Without detracting from the finished article the booklet tends to wander from the point in that several pages are devoted to a “potted” history of the Maori War of 1845-47 because of a memorial located at the barracks to the dead of the 99th Regiment. Two further pages refer to the reason why the barracks were named after the Marquis of Anglesey, and dwells upon his service in the British Army. Other than these minor irrelevancies the contents are pertinent although somewhat ‘broad brush’ when one considers that the barracks have stood since 1811 and are probably the oldest extant buildings anywhere in the Commonwealth. Of particular interest to the military historian are accurate lists of the British Regiments and Corps (25 in all) which served in Tasmania in 1871, and a list of Commandants past and present whose presence graced the barracks. There are many famous or well known names listed amongst them not the least being Lt Col D. Collins (1804-10), Col W. Sorell (1817-24), Col G. Arthur (1824-26), Brig Gen C. H. Jess (1925-27), Brig C. A. Clowes (1939-40), Col C. A. E. Fraser (1962-64), and Brig J. D. Stevenson (1973-76).

* The booklet can only be obtained by visiting Anglesea Barracks, Hobart. Contact should be made with Defence Public Relations, Tasmania.


Reviewed by R. F. Wright
Defence Central, Canberra

As the biennial guide ‘Flottes de Combat’, the French version of this book has been published since 1897. The translation into this first English edition of ‘Combat Fleets of the World’ has been prepared under the direction of the US Naval Institute.

‘Combat Fleets’ lists and describes the ships, aircraft and weapons of 116 navies, from Abu Dhabi to Zanzibar. The entry for each ship, or class of ship, includes construction history and specifications, with data given concerning displacement, speed, armament, machinery, dimensions, range, manning, electrical equipment and fuel capacity. Dimensions are given in metric units and conversion tables are supplied.

The editor’s introduction highlights tactical anti-ship missiles as a development which will give rise to completely new concepts and doctrines of surface warfare. On the defensive side, he states that microelectronics and digital computers have reduced reaction times, so lessening the danger to ships from saturation attacks by aircraft. Reviewing various ship-building programmes, the editor assesses that the USSR is now concentrating on quality, rather than compensating for technological inferiority with superiority in numbers. Readers who have frequently seen British publications claim that the Royal Navy is becoming inferior to that of France, will be struck by the editor’s comment that the R.N. has a modern and mobile logistic force which is eight times greater in tonnage than its French equivalent. They may be less convinced by his claim that the “essential element in the defence of France is now the navy”, particularly as the editor’s brief justification makes no reference to the “Force de dissuasion”, which recently commissioned its fourth submarine.

The R.A.N. rates five pages packed with technical data, even including a list of sonar types allegedly carried by our River class escorts. The detail does not go far enough
however, to distinguish the lesser numbers of Bofors guns carried by Duchess as compared with Vampire and Vendetta. Thirteen photos illustrate the R.A.N. section, but only one of them is taken after 1972, so that a number show ships without the numerous small changes which have occurred since that time.

New Zealand readers will find that their Navy occupies only one page and that the data is restricted to the point of there being no mention that Waikato is a narrow beamed Leander, while Canterbury is wide beamed.

Despite these deficiencies, it is easy to find examples where ‘Combat Fleets’ excels itself in detail. The following entry appears under the heading “armour” for the new US Nimitz class aircraft carriers.

“The decks and the hull are of extra strong high tensile steel which can limit the impact of semi-armour piercing bombs. Independent of the longitudinal bulkheads, there are 23 watertight transverse bulkheads (more than 2000 compartments) as well as 10 firewall bulkheads which rise to the flight deck. Fire fighting means with foam devices are very well developed and pumping equipment is excellent, a 1.5° list being correctable in 20 minutes. There are 30 damage control teams available at all times. Nimitz class ships can withstand three times the severe pounding given the Essex class aircraft carriers during 1944-45 and they can take impacts and shock waves in the same proportion.”

No are yesterday's capital ships neglected. In discussing the four Iowa Class battleships which the US Navy has in reserve, Combat Fleets explains why the New Jersey was the logical choice to be recommissioned for bombardment work off Vietnam. Among her three sisters, the Missouri was not restored to her original condition and speed after grounding in 1950, the Wisconsin had electrical circuitry near A and B turret destroyed by fire during her inactivation, and the Iowa's electrical equipment was even more out of date.

In contrast to these serious matters of naval construction, it comes as light relief to find that in the new French 3880 ton “corvettes”, special efforts have been made, inter alia, towards “improving the sanitary facilities”.

The mind boggles at what progress may have taken place in this area of technology.

‘Combat Fleets’ obviously draws on its own band of dedicated photographers, in addition to official sources, for the 1400 good quality photographs which illustrate the book. Australian readers will be interested in the shot of the Turkish Ayvalik ex HMAS Geraldton, which shows some small changes from her days as an Australian Bathurst. Students of Chinese naval construction can study a large detailed shot of Sierra Leone's two Shanghai II class patrol boats. The Russian section is also particularly well illustrated. Some 50 or more finely done line drawings support the photographs.

It is inevitable that any overall summation of this book must compare it with Jane's Fighting Ships, which is better known to English speaking readers. ‘Combat Fleets’ is physically smaller, lighter and easier to handle. This is achieved by not having paid advertisements, by restricting photographs to about half the number in Jane’s, and by giving less space to lesser ships and lesser navies. The result of this approach is a price which is only two-thirds that of Jane's, and a book which gives good value for money expended.


Reviewed by Squadron Leader J. R. De Bomford Air Force Office

Of the lessons to be learned from World War 1, one, at least for this reviewer, shines above all others, and that is how men can endure and survive impossible hardships such as were experienced in that War. ‘Flying Minnows’, the personal memoirs of a pilot in the Royal Flying Corps from training in Canada to war's end, well illustrates this belief.

The author entered the fray in February 1918 and continued on operations, with only brief respite, until the Armistice. During those nine months, Vivian Voss flew the renowned Bristol F2B Fighter on a variety of tasks ranging from offensive patrols up to 20,000 ft., sans oxygen, to hair-raising ground strafing missions. His adventures are related in a matter-of-fact style with no heroics and plenty of detail.

* Available in Australia through Thomas C. Lothian Pty Ltd, 4-12 Tattersalls Lane, Melbourne.
‘Minnows’ is notable for the absence of gloom which understandably tinges, even pervades, most books written by participants in the Great War. The probable reasons for the generally cheery tone of this story were that the author was quite well trained for the times, he enjoyed competent leadership from his Flight Commanders and one of two Commanding Officers and perhaps most importantly, he had the confidence engendered by flying an aircraft with good performance and sturdy construction, operating usually in conditions of at least numerical equality.

With 306 pages of text plus twelve pages of photographs and appendices, the book is a thick volume, but apart from a few lapses it is crammed with interest. Flying the F2B, a ditching at sea, the dangers of flack, operating early air-to-air W/T equipment, combat with Richthofen’s Circus and spin-recovery in cloud using a spirit-level and compass are just a few of the many reminiscences in store for the reader.

‘Flying Minnows’ has been out of print for forty years but this edition improves on the original, which used pseudonyms for most of the personalities and even the squadrons mentioned; they are now identified in an appendix.

Air enthusiasts, and readers who enjoy adventurous autobiographies, should applaud the publisher’s enterprise in reviving this fine story; highly recommended.

CRAFTSMEN IN UNIFORM, by Peter Cape, Wellington, RNZEME, 1976, pp. 198, New Zealand price $16.50.

Reviewed by Dr I. H. Barber, Department of History, University of Waikato.

PETER CAPE, journalist, radio and television producer and writer, has presented in Craftsman in Uniform a clear and fascinating account of the history of the corps of Royal New Zealand Electrical and Mechanical Engineers. Blending recorded interviews and reminiscences with official reports the author has presented a dramatic account of the contribution made by the corps, in war and peace. The Colonel-in-Chief, the Duke of Edinburgh, notes this skillful use of personal reminiscence in his preface, and comments that it usefully illustrates ‘the professionalism of the mechanics, artificers, electricians and other skilled workers, which is so inclined to be overlooked. Without this vital contribution there would be no glory’.

Much of this book relates to the Corps’ contribution in the Second World War. This is hardly surprising in the light of the Corps’ late division from its parent corps, the New Zealand Ordnance Corps, in 1942. In Greece and Crete the mechanics turned infantrymen, and acquitted themselves well. In North Africa these craftsmen worked on through freezing days and freezing nights, recovering vehicles, repairing weapons, and beating off scorpions. Italy’s snow and rain, and the fierceness of German resistance, found the Corps providing extra protection to the under-bellies of Sherman tanks and devising disguise to cover their exhaust smoke. The smaller contingent involved in the Pacific War faced a heavy servicing programme with limited resources.

Cape’s final chapter, ‘Reorganisations and Innovations’, is of no means the least important. This chapter tells of some of the difficulties faced in the development of the new corps — problems of insufficient accommodation and equipment. Lance-Corporal Trevor Francis’ recollection is typical:

‘We were still in the workshop which had been built during the war and it wasn’t insulated or heated. . . . Then there was a fire in our A & G Section workshop; we’d just installed our own heating system with a boiler and hot water, and we used to stoke hell out of it when we got to work. . . . This day, however, there had been a zealous young corporal on duty overnight, and he’d stoked the boiler at half-past six, and then went off duty. It was a good thought, but the fire caught the insulation and away it went. It was mid-winter, and without power and heat it wasn’t much good working there. Rain turned to ice, and the snow came in’.

Craftsman in Uniform is strengthened by a useful set of maps, photographic evidence of the variety of Corps tasks and by six appendices. Appendix One details the organisation, chain of command and war establishment by units of the Second New Zealand Expeditionary Force. Appendix Two is the Corps Roll of Honour, and the remaining appendices record details of Colonels, Commandants, Directors, Decorations and Honours.
This is a book for ‘dinkum digs’ rather than for war historians. Its weakness lies in the writer’s failure to sufficiently link the collected reminiscences into a comprehensive account of Corps’ achievement. Its strength is its attention to the personal feeling and reflections of those who served.

*Doctor Barber is a major in the RNZEC, New Zealand Territorial Force.*


Reviewed by Colonel G. J. Murphy

Director of Operational Requirements

Army Office, Canberra

This book, the first in a new series, is intended as “a compact but comprehensive guide to the German tanks developed during the period of the Third Reich 1933-45. The object is to provide the enthusiast with a model by model record of production vehicles, prototypes, and projects”. It is a slender volume of 160 pages, but contains 180 illustrations, 16 pages of scale drawings and over 30,000 words of text.

Within its field, the book is thorough and accurate — the ideal small handbook for specialists. But it is more than a catalogue of equipment and likely to be of interest to the general military reader because of the picture which emerges of how the German Army’s most important weapon was forged.

The book begins with a summary of German tank development and some brief notes on the important technical features of tanks. It then relates how the main models were developed, mentioning personalities and events where appropriate. There are data summaries and drawings of the more important vehicles but, alas, no index is provided.

The fact is mentioned that German tanks enjoyed the advantages of superior numbers only in Poland in 1939 and the Balkans in 1941. But the magnitude of the disparity can only be grasped if we remember that during the Second World War, Germany produced only about 23,500 tanks, whereas the British, American and Russian output totalled almost 220,000. Was it qualitative superiority which enabled German armour to dominate the battlefield for so long? Before answering that question, we must remember that from mid-1941 the Russian KV-1 and T34/76 tanks were individually superior to all German tanks. Despite hasty improvisation (such as the “up-gunning” of existing models), the Germans did not regain qualitative superiority until 1943, when the Tiger and Panther, hurriedly developed to meet a desperate need, were in the hands of troops. The emphasis placed on tank firepower was always well repaid but generally German tank design tended to be sound but over-elaborate and ill-suited for quantity production. The failings were, however, not so much those of the designers as of the policymakers, who did not insist on standardization of basic types until too late and then devoted far too much effort to ‘monsters’, such as the King Tiger (Tiger II, 69 tons), E100 (140 tons) and Maus (188 tons). We may conclude that although high quality was an important factor, it was not the decisive element.

What then was it that enabled German panzer elements to achieve so much? It seems to have been partly due to the balanced organizations which allowed armour to be used concentrated, but well-supported by other arms. It was also a product of exceptional tactical flexibility, achieved by thorough training, good leadership and much attention to communications systems. (It is no coincidence that General Guderian had been a signals specialist). But, as always in war, a major factor was the skill, enterprise, battle discipline and determination of the soldiers.

In the end, it was the soldiers who wasted away. The responsible Minister, Albert Speer, claimed that in 1944 there were enough tanks produced to equip 40 panzer divisions but there were insufficient trained soldiers to man them. By May 1945, the armoured force had become fragmented — most of it consumed in the terrible battles on the Eastern Front.

It may seem unfair to criticize the book for not doing more than it set out to do, but it fails to deal with self-propelled guns which were important numerically (nearly 43,000 being produced) and tactically. That it also omits armoured cars and light armoured carriers is not very serious because, whilst valuable at times, they were rarely a decisive element in battle.