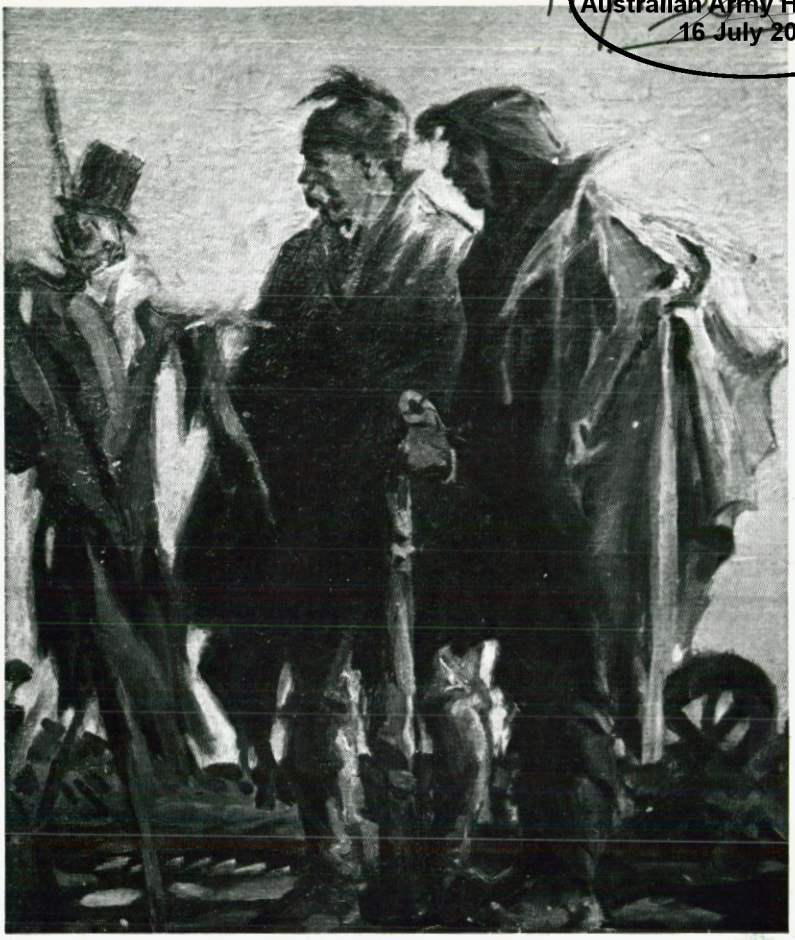

ARMY JOURNAL

No. 293 OCTOBER 1973

ARMY JOURNAL

Editor C F Coady

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COVER: 'It's a Bloomin' Civvy' by Hon. Lieut Will Dyson, France 1918. At the Australian War Memorial.

ARMY JOURNAL

A periodical review of military literature

No. 293, OCTOBER 1973

Contents

(Australian War Memorial)

The mud of Passchendaele, Flanders, November 1917.

COME THE REVOLUTION
a rebirth of field artillery

Lieutenant C. A. Jones
Royal Australian Artillery

Artillery lends dignity to what otherwise would be a disorganized brawl.

ABOVE we have an old and honourable quotation which some people feel befits an old and honourable corps. The uncomfortable question is what emphasis do we place on the word 'old'.

Vietnam saw the introduction of a number of new equipments, ideas and techniques into various corps of the Australian Army. Field Artillery, however, can probably be seen as the major exception.

From World War I (when field artillery contributed to 75 per cent of all casualties) field artillery, with continued but limited development of its manpower resources, has maintained a tactical dominance by being the decisive factor in close combat. With the present rate of development in other fields, however, the process of artillery fire direction seems to be dropping behind.

The solution to this problem is the introduction of a whole new computerized system which will relieve field artillery from the slow manual process required for response to a call for fire support, and replace it with an almost instantaneous response with first round accuracy.

The aim of this article is simply to acquaint you with just a few of the new equipments which are at present being phased into field

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Lieutenant Jones, who has previously contributed to Army Journal, *graduated from RMC Duntroon in December 1972 with a BA(Mil), majoring in English and History, and was allotted to the RAA. His present posting is 4 Field Regiment, Lavarack Barracks, Townsville.* *He would like to acknowledge the co-operation and assistance provided by the Marconi Space and Defence Systems Ltd (England), Les Laboratoires De Marcoussis (France) and Litton Industries (USA) in the preparation of the article.*

artillery and the basic principles behind them. Also there will be a look at what may be seen in field artillery at some future date. The equipments mentioned in this article will also have strong relevance to artillery supported arms for two reasons. These reasons are, first, that the supported arms call for fire can expect a much faster response time and, secondly, some of the future equipments which may be phased into the artillery can also be used for high-level tactical planning.

Fire Mission Procedure

The basic fire mission procedure consists simply of a Forward Observer (FO) sending in information such as a grid reference, a target altitude and a direction from himself to the target, to the gun position. The main fault with this existing system is that the FO can send only estimated information in nearly all cases. This leads to a loss of surprise and an adjustment process which is costly in both time and material.

A solution to this problem is to provide the FO with a laser range-finder. Field artillery will shortly be in possession of such an equipment, but until a specific type is decided upon, this article will employ the French-designed TM10 to help illustrate some of the advantages and principles a range-finder possesses.

A range-finder has two basic purposes:

1. To give the FO the best possible chance of accurately locating his target.
2. To give Survey an accurate means to accurately measure distances. In this case the range-finder is a dual-purpose substitute for the existing Tellurometer.

The TM10 range-finder system consists of the following parts:

1. A range-finder sight unit;
2. goniometric platforms;
3. a tripod;
4. a Northseeker WILD GAK I (the range-finder can also be oriented by azimuth); and
5. a power supply.

The basic principle behind the TM10 and any other range-finder is very similar to that of the principle of the radar beam, in that the

(Les Laboratoires De Marcoussis)

The French-Designed TM10 Laser Range-Finder

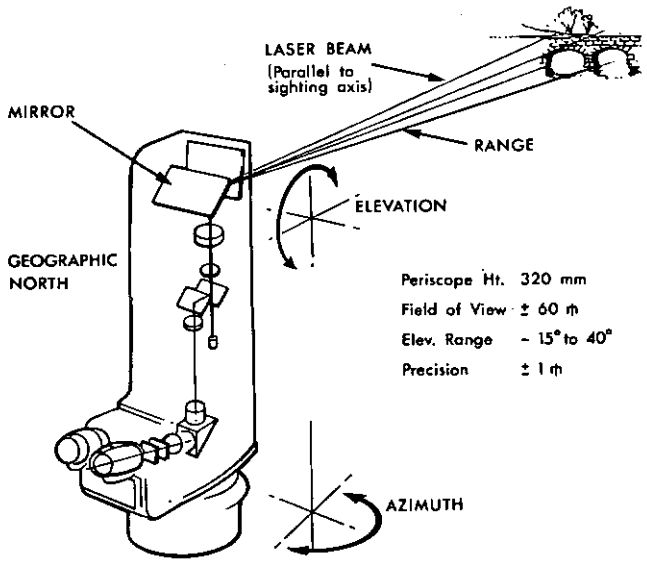
range to an object is determined by measuring the time interval between the emission of a laser pulse and the return of the pulse to the target. The only major difference is that the laser uses a much shorter wavelength and therefore can afford to have a much smaller, and easier concealed, emitting element than that employed by radar.

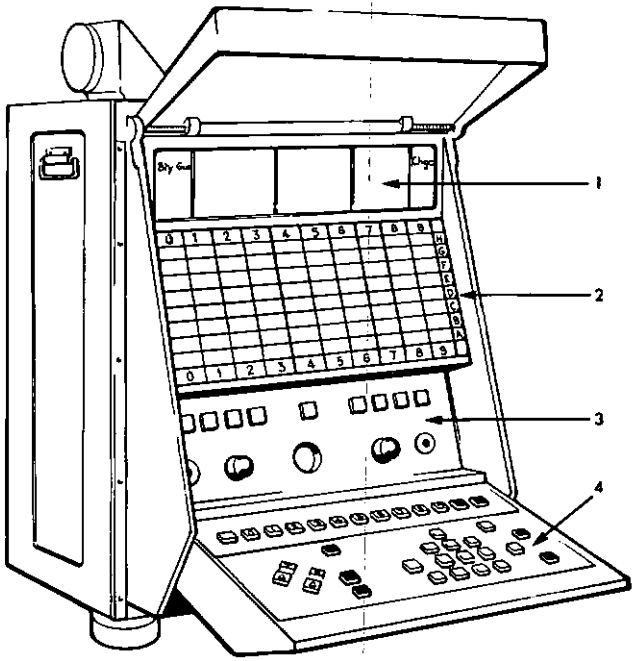
Once a beam has been emitted from the range-finder and bounces back off the target, the received beam can be seen to follow the same external optical path as the transmitted beam but, once it enters the sight unit, it passes through a dichroic mirror which directs it at a photosensitive cell. Thus the measured range is able to be viewed through a magnifying eyepiece. The return beam is of an infra-red nature, but protection is assured by means of a beam-splitter and a filter which attenuates the beam.

Operations in the Field

Tactical situations obviously place certain requirements on the range-finder, such as the fact that it has to be fast, simple, manoeuvrable, robust and easily concealed. Once these basic requirements have been met, the range-finder can be employed very easily by first levelling it and finding north, then by directing the sight unit at the target, and finally by pressing the laser-firing button. The accurate range, elevation and azimuth can then be read off the scale. If more than one echo returns (the nearest echoes to the target as well as the target echo may be returned), then the FO must judge which is the correct echo by an evaluation of the surrounding topography. Once this evaluation is complete the FO can block out the unwanted echoes by means of a blind-range adjustment.

At this point I stress that development and user tests are still being carried out on range-finders by armies throughout the world (including our own), and modifications are continually being incorporated. Such modifications include (in the case of the TM10) the use of a low-level tripod so the range-finder can be used in a reclining, less conspicuous position, or even, as with the case of other types of range-finders, doing away with the tripod altogether and using the shoulder as a support. A new system is also being developed whereby the range, elevation and azimuth data can be sent directly to the computer and hence save valuable time.





FACE CONSOLE

Legend

1. **Data Display** — results of computations. Data also displayed for checking before it is stored in computer.
2. **Matrix** — leads the operator through the drill. The operator presses the relevant button for the drill he wants. The console lights up the relevant matrix squares and he just follows them.
3. **Master controls** — On/Off button, test button, etc.
4. **Keyboard** — for entry of information.

It would be incongruous if we had the situation where an FO had the facilities of a range-finder, which passed back deadly accurate, high-speed information to a gun position which still had to depend on human computers and was at the mercy of human errors. The logical need arises to have an equally accurate and speedy system at the gun position to prevent a bottleneck. Such a system has already been designed and should be introduced into the RAA by September. This system is known simply as FACE.

The Field Artillery Computer Equipment (FACE) computes every possible thing needed to put a shell on target. This includes:

- Gun and target positional data.
- The allowance for the rotation of the earth.
- Meteorology.
- Wear of the gun barrels.
- Variation of projectile weight.

FACE is also capable of carrying out the precise survey calculations required for its initial positioning. Calculations to the accuracy of eight-figure logarithms are dealt with in less than ten seconds.

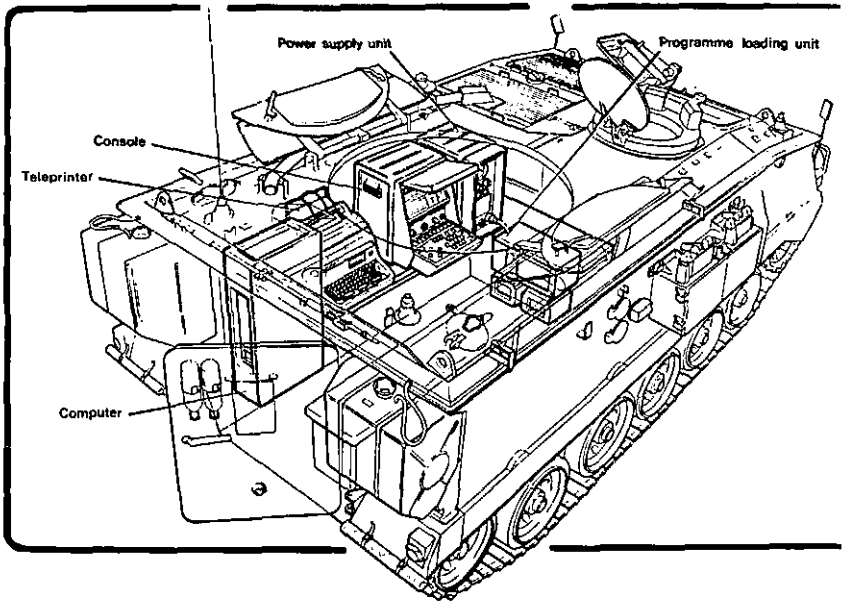
FACE in Action

In response to a call for fire, the methods employed at the gun position in Australian field batteries at present involve the looking up of firing tables, graphical and manual plotting, and the working out of calculations which, in the case of certain types of missions, can be extremely complex and leave plenty of room for error. These difficulties, however, can be, and are, overcome to give good accurate plotting. The catch is that this present system must have the following:

- A high degree of skill by plotters.
- Time and money to train command post operators.
- Time to manually prepare such items as meteorology charts and do survey computations.
- Time to plot fall of shot corrections.
- Some human error risk.

It is not difficult to spot time as the major factor against the existing system. FACE, in contrast, takes less than one-third of the

time of flight of the projectile to display the relevant firing data, while corrections to fall of shot should take only one second. Also we have the meteorology and survey time cut to a fraction (with improved accuracy — especially so in advance meteorology conditions) of the time taken previously. Coupled with these strong factors is the fact that human error is greatly reduced. The case exists where the computer leads the operator. This means that there is no chance of forgetting the basic drills for the various missions. A control button, held by the



(Marconi Space and Defence Systems Ltd.)

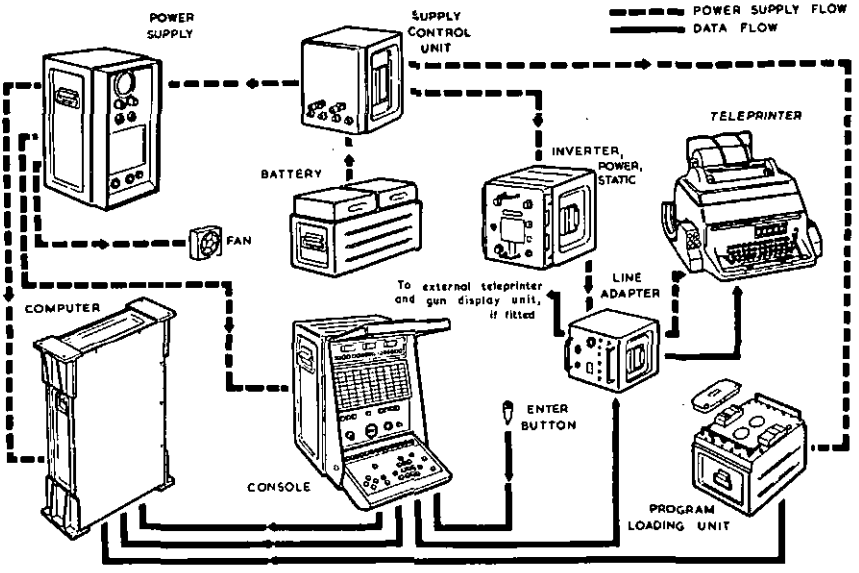
FACE Ready for Action in ACV

GPO (Gun Position Officer), enables the double check, integral to the artillery system, to be made. Indirectly, FACE cuts the chance of human error by cutting fatigue. This is achieved because FACE can run for some eight hours on its 24-volt DC batteries. This allows for cooling by convection and therefore minimum noise to cause either fatigue or tactical insecurity.

All input data for FACE is carried out under programme control. Special programmes have been written into FACE which are mathematical models of artillery problems. An example of such a programme is the main ballistic programme which simulates the actual flight or trajectory of a shell by performing a numerical integration on Moulton's equations of motion in three dimensions.

An obvious question which arises is one regarding maintenance and the continued efficiency of such a system in battlefield conditions. A glance at the history of FACE tells us that it has been in continuous service with the British Army since 1969 and has always given reliable service. Constant improvements have been made in the system which has even further increased the durability of FACE. Each unit is sealed against moisture (the units can be submerged to a depth of three feet) and are proofed against dust and vibration.

When FACE first entered service with the British Army, they realized that all repairs conducted on it would have to be done by their existing radio mechanics and not by unavailable skilled computer



(Marconi Space and Defence Systems Ltd.)

The FACE Computer System

technicians. The computer was thus designed to locate its own faults in major units. Interchangeable sub-assemblies and logic boards make forward area maintenance a fairly speedy process. Further aids to maintenance are the Computer Test Set and the Power Supply Test Set which enable the mechanic (without any prior computer technical knowledge) to diagnose the fault down to board level and repair the fault by simply replacing the unserviceable board with a spare.

We have had a brief glimpse at what the Australian Field Artillery will be obtaining in the near future. Now let us have a look through the crystal ball at what sort of equipment could become regarded as imperative to the field artillery in years to come.

I think it would be safe to envisage some sort of total command and control system as exemplified by the new American system entitled TACFIRE.[1] Here we see just such a system which has equipment designed to be ruggedly man portable. In the words of the US Army after they had conducted user trials, this type of system 'doubles artillery effectiveness'.

It must be understood that the type of artillery command and control system in question will not change the basic processes which exist in field artillery. What it will do, however, is to greatly speed up these processes. The speeding up is achieved in a number of ways.

The first step is to provide the FO with a device other than radio with which he can record the details of his target and then press a button sending the whole message in a short digital burst. This not only speeds up the call for fire, but also makes it extremely hard for the enemy to pin-point the FO's location or gain any prior warning of the arrival of the shells. It is the initial surprise rounds which are the most effective. To enhance this surprise, the main computer system will also be capable of simulating the initial adjusting rounds. In this process an estimated trajectory is simulated from the fire unit to the target; then corrections for factors such as meteorology are made. When the simulated trajectory intersects the target location, the computer sends out data for that point. All this is done in seconds. Systems required for such tasks are even now becoming available to the US Army.

[1] For details of TACFIRE see article by Lt. Col. I. J. Meibusch, 'Automated Tactical Command and Control', *Army Journal*, January 1973, p. 34.

On the surface it appears that in the world of artillery the computer will completely replace man some time in the not too distant future. This view, I feel, is somewhat of a fallacy since I think that there will always be a need for the human element of decision. This channel of thought is also evident with the designers of today's artillery computer systems. They always build in a means whereby a human controller can receive up-to-date tactical information on a situation and have a simple and effective way of rapidly amending the solution shown by the computer if he feels that he has a better overall tactical picture.

The more automated the artillery becomes, the more we will have to get out of the way of thinking about manual backups and start having faith and confidence in the equipment placed under our control. We see this by the simple analogy of a racing car driver who always carried a bicycle around with him in case his car is unable to finish the race. Rather than thinking about manual methods, which are fast becoming inadequate, we should turn our thoughts to more efficient ways to keep the equipment in good order, of better methods of maintenance and a speedier system of repair. Backups should always be available, but these backups should be of the same nature as the equipment being used. This prevents operators having to learn two completely separate processes and from being 'out of touch' when swopping from one system to another; this leads to dangerous human error. The initial expense in equipment will be outweighed by the greater overall efficiency achieved and the time and money saved by not having to teach operators two different processes.

Overall, we have had a brief introduction into some of the equipments being introduced into the RAA at the present time and a glimpse at what may be introduced in the more distant future. We have seen that the basic artillery processes will remain the same; yet there is the need for a new way of thinking, that of turning away from the old manual methods and applying the artillery procedures purely to the new equipments. Once this is achieved I feel we can count on a gradual development and building up of a system which will encompass the following major features:

- An increase of accuracy.
- A cut down in response time.
- An increase of efficiency.
- A cut down on the chance of human error.

- A reduced drain on personnel.
- A clearer command visibility.
- Greater flexibility (especially in fire planning).
- A greater economy of both manpower and materials.

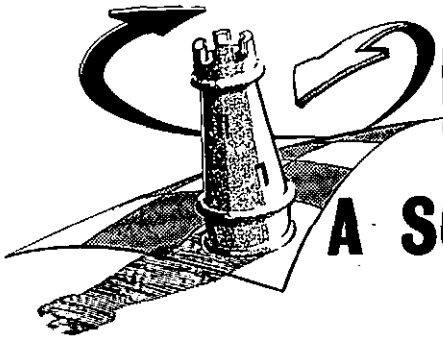
When the Australian artillery can adopt such a system which can fulfil at least some of the above features, then we can truly say that the revolution has at last come about. □

During recent years the Army has been investigating specific requirements of an advanced field artillery fire control system for introduction to service in the period 'post 1980'. The primary objectives are to improve the overall effectiveness of artillery and reduce the reaction time of calls for fire. Working in close co-operation with the Weapons Research Establishment, individual studies have included such topics as applications for field computers, automatic gun alignment system, muzzle velocity measurement, techniques for distance measurement, data transmission, mathematical modelling of shell trajectories and terminal ballistics.

Fire control systems are under development overseas but are based on different organizations, philosophies and technical procedures. Consequently a study to determine the parameters of a system suitable for the Australian Army has been instigated. This system may incorporate a substantial number of overseas components, but the choice of appropriate options requires detailed investigation of the alternatives which will establish the desired Australian characteristics for both technical and tactical fire control.

To assist the Army with this work a small team (which includes an artillery lieutenant colonel) at the Weapons Research Establishment has undertaken a systems engineering study aimed to assess the performance of field artillery in all its aspects and to integrate relevant activities of current projects. Ultimately, the configuration of a coherent fire control system will be determined and priorities established where supporting research is needed.

—Editor



ESTIMATING THE THREAT: A SOLDIER'S JOB

Major General Daniel O. Graham
United States Army

IN his landmark book, *The Soldier and the State,* Professor Samuel P. Huntington draws our attention to an extremely important and sometimes neglected fact:

> The military institutions of any society are shaped by two forces: a functional imperative stemming from the threats to the society's security, and a social imperative arising from the social forces, ideologies, and institutions dominant within the society . . . .

So, the reason for the existence of our armed forces is to counter threats to our security, and the function, composition and size of those forces depend on the perception of threats by the national leadership. If the military profession loses its role in describing these threats to national security, it surrenders much of its influence in decisions about military strategy, military force structure and the nature of its own armaments.

We have in the past ten years come perilously close to losing this vital role. The impact of the intelligence views of the Department of Defense was progressively weakened between 1960 and 1970, and the voice of civilian agencies in all facets of military intelligence became progressively more dominant. The military budgets carried the onus of heavy outlays for intelligence collection, but the key intelligence judgements derived from this costly effort were for the most part made in other agencies.

From ARMY magazine, April, 1973. *General Graham is the deputy director for estimates in the Defense Intelligence Agency. He has served in several posts in the Office of the Assistant Chief of Staff for Intelligence and the Central Intelligence Agency, and commanded the 319th Military Intelligence Battalion in US Army Pacific. In Vietnam he was chief of the Current Intelligence, Indications and Estimates Division, Directorate of Intelligence Production, in the office of J2, US Military Assistance Command.*

This situation can be too easily dismissed as the result of bureaucratic manoeuvring, of 'whiz kids' ignoring military advice, or of the general growth of anti-military sentiment in and out of government. The fact is that the muting of the military voice in military intelligence was largely of our own doing. Military professionals — both users and producers of intelligence — through failure to understand the strategic intelligence function, downgrading of the role of intelligence in general and sometimes abusing the intelligence process, have in the past produced the best arguments for taking the responsibility for threat description out of military hands. Now is the time to face these facts, and to take the attitude and the necessary steps to correct the situation.

One has little difficulty in arguing the need for good tactical intelligence among military professionals these days. One prime lesson learned in Vietnam was the fact that superior military force cannot be brought to bear in the absence of good intelligence. The Army has acted and is still acting vigorously to ensure that good tactical intelligence will be available to commanders in all levels of warfare. However, we are concerned here with an area about which there is less agreement — strategic intelligence.

Strategic intelligence is that which is used to make strategic decisions. This fact is often lost sight of among planners and decision-makers. There is a tendency to think of intelligence gathered by Washington-controlled resources as 'strategic' and that gathered by the commands as 'tactical' or 'operational' intelligence. This is nonsense. If intelligence is used to make tactical decisions, it is tactical intelligence; if it used to make strategic decisions, it is strategic intelligence. The means by which it is collected is quite beside the point. For example, in 1950, when front-line troops reported the fact that the Chinese were crossing the Yalu, it was tactical intelligence to all levels of command in Korea, but strategic intelligence to Tokyo and Washington. On the other hand, knowledge of a new surface-to-air missile in country X is strategic intelligence to national planners but it is tactical intelligence to any air unit which may operate in the area.

It is extremely important to get this matter straight. If we don't, we will continue to have expensive bureaucratic squabbles about intelligence resources, based on spurious arguments about control echelons. Commands will jealously guard intelligence resources on the grounds of 'tactical' intelligence requirements and Washington intelligence agencies will fail to see that their refined 'strategic' collection systems are pro-

ducing a great deal of tactical intelligence, neglecting the need for quick dissemination to the commands.

The definitional dilemma is compounded somewhat by tactical decisions that are often made in Washington. This fact of military life today means that military intelligence organizations in Washington find themselves hip-deep in the tactical intelligence business, traditionally the purview of commanders in the field. Further, there is the unfortunate tendency among intelligence producers and users to associate the term 'strategic' exclusively with intercontinental nuclear-strike matters. For instance, you would find few intelligence officers in the targeting business who would not consider their product 'strategic' intelligence. In fact, it is not; it is essentially tactical intelligence stored up against the contingency of executing the SIOP (Single Integrated Operational Plan).

The general conceptual confusion between tactical and strategic intelligence is jeopardizing the commanders' control of their intelligence assets. But a more serious intelligence problem, in my view, is the danger of the military profession as a whole losing the function of defining the military threat for the national leadership. The basic problem is one of confidence in the military intelligence product within the services, the Department of Defense and the other departments of government.

The intelligence products of greatest impact in the national decision-making arena are the estimates. These contain the intelligence which most heavily influences strategic decisions. They are usually predictive in nature, pulling together basic order-of-battle, technical, doctrinal, economic and political intelligence to describe overall military postures of foreign powers. The estimates project military threats from the present out two, five and ten years. Military planners are heavily dependent on these estimates in force structuring, force development and weapons development.

It is in this area that we military professionals have been in danger of losing our shirts to civilian agencies. To put it bluntly, there is a considerable body of opinion among decision-makers, in and out of the DOD, which regards threat estimates prepared by the military as being self-serving, budget-oriented and generally inflated. This gives rise to a tendency to turn to some other source for 'objective' threat assessments. The suspicion exists not only with regard to broad strategic estimates — for example, trends in the manned bomber threat — but to

such detailed military estimates as the ability of the Soviet field army to sustain itself in the field under various assumed levels of combat. The trend toward independent analysis has been gathering over the past ten years and there are now analytical staffs in the civilian intelligence community paralleling those of the Defense Intelligence Agency (DIA) on almost every military intelligence subject.

The responsibility for this situation to a large degree rests with the military side of the house, not with the civilian agencies. The lack of confidence in the threat estimates emanating from military intelligence agencies which caused users to request outside opinion in the early 1960s, is fully understandable. It stemmed from a series of bad over-estimates, later dubbed 'bomber gap', 'missile gap', and 'megaton gap'. These and other seriously inflated estimates of less notoriety have hung like albatrosses around the necks of military intelligence officers ever since.

In its first several years of existence, DIA was plagued by the prevalent notion, even in the DOD staff, that the agency could not be counted upon for an objective threat assessment. This suspicion was reinforced by the fact that DIA did not perform well in the estimating area. The agency was harried by a combination of birth pains and the burgeoning demands for essentially tactical intelligence in support of Washington-level decisions on the Vietnam war. The estimates function simply muddled along until the Agency was reorganized in 1970 by General Donald V. Bennett, USA. Meanwhile, planners and decision-makers had become accustomed to going elsewhere for their threat estimates.

At first blush, it would appear that the blame for this situation can be laid at the feet of intelligence officers — first in armed services intelligence agencies and then in DIA. But this is too simple; the military intelligence *user* must take his lumps as well. Too often the user has not been content with an objective judgement from his intelligence officer — he has wanted the answer that 'supports the program'. While planner pressure on intelligence estimates is not nearly as blatant or widespread as some quarters would contend, there has been enough of it to make it tough to regain full confidence in the military intelligence effort.

In the service staffs the fact that the position of the intelligence chief is a notch under the other key staff chiefs almost invites planner

pressures on intelligence. It takes a pretty tough-minded assistant chief of staff for intelligence to defend an estimate that runs counter to the well-laid plans of the rest of the general staff. In some ways, planner pressure is worse when it arises in the joint staff arena. Planners of all services 'co-ordinating' an intelligence estimate are quite capable of reducing it to lowest common denominator mush. There are still some 'old hands' in intelligence who are so inured to yielding before user pressures that they automatically produce threat estimates designed to please, or at least certain not to offend. These types are getting fewer, but they still exist.

When intelligence yields to consumer pressure, it cannot remain credible. When intelligence estimates are reduced to bland judgements acceptable to all planners, it is difficult to justify the expensive outlay of resources to collect intelligence. Such inoffensive pap can be produced without evidence.

Fortunately, the somewhat dismal picture outlined above has brightened measurably over the past few years. The stature of intelligence estimates produced by the military has increased considerably and the accusations of bias have abated. Several factors account for this: DIA pulled up its socks and put proper emphasis on the estimates job; a new crop of more professional, less conformist intelligence officers is available for estimating work and, most important, there is a new appreciation of the intelligence function among our military customers.

The Defense Intelligence Agency was reorganized in November, 1970. One of the key changes was the establishment of a separate directorate charged with the production of defense intelligence estimates. One of the prime reasons for this move was the fact that there was, practically speaking, no way to discover the views of the DIA director on important estimative matters. DIA views were submerged in the text of national estimates (NIE's) prepared at the Central Intelligence Agency (CIA) and co-ordinated with all Washington intelligence agencies, or in the text of joint estimates which were co-ordinated with the service planners. The only exception to this rule was the rare dissent to a national estimate when a specific view of the DIA director was noted at the bottom of the page. DIA's institutional anonymity was, in large part, a product of the original service objections to the creation of the agency. 'Running with the pack' was the one way to avoid collision with the individual services. It was bureaucratically much safer to have any substantive argument be between a service and

the 'intelligence community' than between a service and DIA. The trouble was that this attitude put civilian agencies in the position of final arbiters of any disagreements inside DOD on threat definition.

The new DIA directorate for estimates permitted proper attention to the estimating function. Under the old setup, the estimates job was under the directorate for production, which was also charged with answering the daily intelligence mail. The heavy demand for current intelligence on Vietnam, the Middle East and other crisis areas was too urgent and too time consuming to permit much effort on the more scholarly problem of estimates. The new directorate created an adversary process on substantive issues *within* DIA. The estimators, who must defend DIA views in the DOD and national intelligence arena, frequently challenge the results of analysis from the other DIA directorates. This necessary friction causes key intelligence judgements to be thoroughly scrubbed internally, ensuring that DIA won't find itself out on a limb defending a weak argument of some single analyst, a situation which prevailed all too often under the old setup.

The new crop of analysts and estimators available to both the service intelligence offices and to DIA are indispensable to a new effort to regain respectability for military threat estimates. Intelligence specialist programs within the services — and here the Army must be singled out as having the most effective program — are paying off in the form of real professionals capable of making objective assessments of the evidence on hand and defending the intelligence product among their fellow officers. On the civilian side, the new generation of analysts who have entered DIA are not afflicted with an over-riding defensive attitude about service intelligence opinions. Many of the old hands used to react with arguments about the DIA 'charter', rather than counter differing intelligence views with good substantive analysis.

In the long run, however, the most telling factor in the improvement of military intelligence estimates is the increasing awareness among consumers that the only useful intelligence is objective intelligence. There was a time when the rule-of-thumb for acceptability of threat estimates among planners was 'the bigger, the better'. Intelligence estimates which failed to maximize enemy threats in both sum and detail were likely to draw fire as 'wishful thinking'. More often than not, military intelligence people came to heel under such criticism and stumped hard for the 'worst-case' view. These old attitudes are waning now and simplistic demands for the scariest possible threat estimates

are much less prevalent among users. Some hard lessons have been learned.

Military planners have seen some unfortunate results of inflated estimates over the past several years. With regard to Vietnam, it became painfully obvious that 'worst-case' assessments of enemy capabilities by Washington estimators gave the erroneous impression that the more casualties we inflicted on the Viet Cong and North Vietnamese, the stronger they got. When theatre intelligence tried to offset this by stressing the evidence of the telling effects of Allied operations on the enemy, the effort was branded as a lot of unwarranted, policy-oriented optimism. In February, 1968, the communists corroborated the estimate that they were in desperate straits by launching the militarily disastrous Tet offensive. That fact was overlooked by almost everyone, however, most preferring to believe the new gloomy estimates (later proved grossly overstated) that the VC, although defeated near the cities, had 'taken over the countryside'.

Many Pentagon planners have also learned that 'worst-case' estimates can be used to squelch military programs just as easily as to support them. A proposed program can be made to look like a total waste if its opponents are given free rein to postulate the size and sophistication of future threats to the system. Over-estimates of future Soviet strategic missile capabilities killed the US counterforce strategy at least four years before the strategy became invalidated by real Soviet capabilities.

The advent of arms limitation agreements sharply underscored some additional problems of inflated intelligence estimates. The 'horse-trading' aspect of these negotiations raises the very real possibility of trading off actual friendly capabilities for enemy 'capabilities' existing only on paper in our own intelligence estimates.

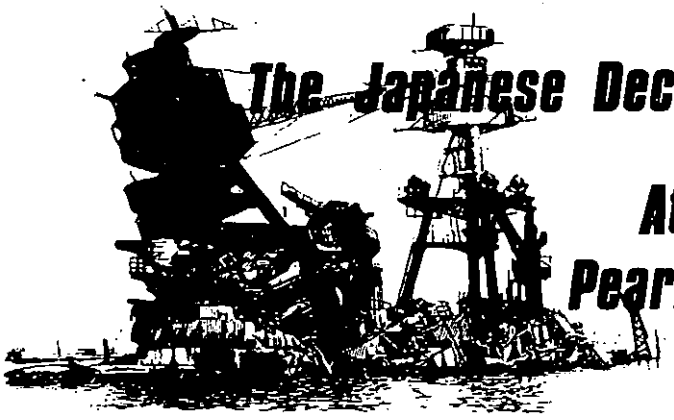
These examples lead to another important point that is beginning to be understood in military planner circles: Estimates of future enemy forces and hardware are by nature estimates of *intent* — not just of *capability*. The old arguments about 'capability versus intent' are heard less now in DOD. It remains true that intelligence should emphasize capability in descriptions of current and near-future enemy forces. But the minute you tackle the usual problem of estimating enemy forces (or hardware) a year or so into the future, you have entered the realm of intent. For example, since World War II the Soviets have never, to our knowledge, deployed forces or fielded hardware as fast as their total

capability permitted. To estimate that they would do so with regard to some weapon system or type of force in the future would make little sense. Indeed, all estimates of future Soviet forces derive from an attempt to discern what part of their total capability the Soviets *intend* to use in military programs and which programs they *intend* to emphasize. This is not a very difficult-to-fathom verity of intelligence estimating. It is remarkable how long it has taken some of our military users to wise up to it.

While not all users of intelligence in DOD have learned the pitfalls of trying to make intelligence 'fit the program', most have. Today there is a much improved market for objective intelligence judgements and this is a most hopeful sign in the field of military intelligence. When we get to the point where the strategic intelligence officer knows that his prime customers are going to raise the same amount of hell about overstatement as about understatement of threats, the objectivity of intelligence estimates will be almost automatic.

Objective intelligence is a goal to be devoutly pursued by the entire military profession. However, an important word of caution is in order: An objective intelligence judgement is not necessarily a valid judgement. Validity depends on the evidence available to the intelligence people and the quality of the analysis applied to that evidence. Any planner or decision-maker not convinced that there is good evidence and good analysis behind an intelligence judgement should feel perfectly free to reject it. And the intelligence officer should not get his nose out of joint if his product is not always accepted as gospel. However, the user cannot insist that the intelligence officer recant and change his best judgement. If he does this, he corrupts the whole system.

To sum up, I think that the time is ripe for the military profession to reassert its traditional role in the function of describing military threats to national security. Both the military user and the military producer of strategic intelligence have come a long way since the 'missile-gap' days. DIA has hit its stride in the production of respectable military estimates. While there will always be a legitimate reason for independent judgements from outside DOD on issues of critical importance to national decision-makers, there is no longer a need, in my judgement, to duplicate DIA's efforts in other agencies. The best assist the Army can give to such an effort is to insist on objective strategic intelligence, co-operate with DIA in producing it, and put good officers in the strategic intelligence field. □



The Japanese Decision to Attack Pearl Harbour

Lieutenant Colonel W. W. Lennon
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THE Japanese attack on Pearl Harbour in December 1941 was the act which signalled the decision to go to war with the United States of America. However, the processes which led to this were many and involved. The decisiveness of the act was in marked contrast to the events which led up to it.

The decision to launch the attack was deferred till the latest possible time; and if, for any one of a hundred possible and likely reasons the attack had not been made, the course of the history of World War II might have run otherwise. Indeed, with the fine balance which existed in world international relations during the two years prior to Pearl Harbour, the alliances of World War II might have been completely different from those which developed. The Pearl Harbour attack by the Japanese was not just a decision to launch a crippling surprise raid on the American Pacific Fleet in harbour. The decision must be examined in a dual context and cannot be regarded as a short term or sudden decision.

After graduating from RMC in 1956 Lt Col Lennon attended University of Queensland for a degree of Bachelor of Mechanical Engineering. He has commanded a variety of RAE units in Australia and Vietnam, and served on attachments to the Snowy Mountains Hydro-Electric Authority and the US 25th Infantry Division in Hawaii. In 1969 he attained a degree in Bachelor of Arts from ANU and attended the British Army Staff College, Camberley in 1970. He is currently posted as Project Manager, Directorate of Accommodation and Works, AHQ Canberra.

The background of generations of history and the events of the immediately preceding years, months and days contributed to develop the policy which was crystallized in action during two hours on the morning of 7 December 1941. Since then, historians and political scientists have examined and analysed the events which led to Pearl Harbour to attempt to establish the causes, and, in some cases, to lay blame. During World War II, the consensus of opinion outside the Axis countries was against Japanese treachery and warlike aggressiveness. Since the peace, some students have suggested that war between Japan and the United States was not a simple case of aggressor and innocent party. It has been argued that Roosevelt manipulated events to force the Japanese into war and thus allow the United States to take up arms against not only Japan but also the other Axis powers, without being accused from within or abroad of aggression.

The rise of Japan as a modern military power can be traced to 1931 when she invaded Manchuria and established the satellite state of Manchukuo. Since the war against Russian expansionism in Korea at the turn of the century Japanese militarists had been agitating for expansion into China. The United States considered this invasion to be in defiance of the anti-war Kellogg-Briand Pact of 1928 and the Nine-Power Treaty of 1922. This latter treaty was intended to obtain recognition of Chinese sovereignty by all Pacific powers. The invasion of Manchuria constituted the initial step of a master plan for Japanese expansion attributed[1] to the martial Japanese premier General Tanaka in 1927. During 1932 and 1933 Japan extended her gains in Manchukuo into National China, forcing the Chinese to agree to Japanese control of some parts of Northern China in an uneasy truce, which proved to be more to China's advantage than to Japan's. Japan withdrew from the League of Nations in 1933 when she was declared to be the aggressor in China and announced her intention to work towards dominance in East Asia.

In the meantime Japan was adding to her already substantial naval strength, which was limited by the 1922 Washington Treaty in the number and size of battleships and aircraft carriers. Japan's build-up of other naval craft inspired the 1930 London Naval Conference to refuse her bid for a higher proportion of capital ships than was authorized by the existing 5:5:3 ratio, which made Japan inferior to Britain

[1] Yu Te-jen, *The Japanese Struggle for World Empire*, Vantage Press, New York, 1967, p. 79.

and America. In 1936 Japan decided to discard the London Treaty and commence a substantial ship-building programme to change the balance of naval power. Meanwhile, the Army in Tokyo led a bloody mutiny against the government, which was halted only by the intervention of the Emperor. Several conservative politicians were assassinated and the military-backed Prince Konoye became premier in mid-1937.

In July 1937 Japan resumed her war with China, invading the northern provinces and ignoring the objections of the League of Nations, the United States and the other nations of the Nine Power Treaty. Relations with America deteriorated after the Japanese sinking of USS *Panay* and three American merchant ships in the Yangtze River in December 1937, despite Japan's declared regret over the incident.

In 1936 Japan and Germany had signed the Anti Comintern Pact and in 1937 Italy joined them. As the situation deteriorated into war in Europe, Japan strengthened her relations with Italy and Germany and further strained her relations with the United States. In July 1939 America retaliated against Japanese aggression in China by economic means, by terminating the Treaty of Commerce and Navigation. In the light of German success against France, Japan made a bid to the Vichy Government in 1940 to occupy parts of northern Indo-China, claiming that China was receiving supplies through this area. Japan signed a Tripartite Pact in late 1940 with Germany and Italy which recognized Japanese establishment of a 'New Order' in Asia, and which was also intended to deter American participation in the war in Europe. The United States imposed further sanctions by ceasing steel and scrap exports to Japan in late 1940. With the declaration of war by Germany against Russia in June 1941, Japan saw the opportunity to expand into southern Indo-China — maintaining a passive defensive posture in the north against an otherwise pre-occupied Russia.

The military implications of Japanese occupation of southern Indo-China and potential domination of the rest of South-East Asia and the South-West Pacific, caused the United States to impose the final economic restrictions of freezing Japanese funds and ceasing oil export to Japan. Britain and the Netherlands East Indies followed America's lead. During 1941, diplomatic negotiations had been going on between Japan and the United States in an attempt to establish a mutually acceptable agreement to stop the break-down of relations.

In late November 1941 the Imperial Fleet, under Admiral Naguma, set sail for Hawaii. Soon after, the Japanese ambassadors Kurusu and

Nomura presented Japan's final offer to the American Secretary of State, Cordell Hull. On 7 December the attack on Pearl Harbour began, before the formal declaration of war had been delivered in Washington.

Underlying the Japanese decision to attack Pearl Harbour was the groundswell of expansionism which followed the Japanese Russian War and World War I. The Japanese Army was anxious for conquest of China and Eastern Asia. The new militarism was based on the medieval Bushido ethics of the Samurai warriors and the Shinto priests. General Tanaka established the basis for Japanese militarism, and it was passed on by General Sadao Araki to the new generation of young army officers, which included Tojo and Hashimoto, both of whom were later to win notoriety. There was a feeling in Japan of military confidence. Japan's successes against Russia in 1905 were not forgotten. She had the third strongest navy in the world and was increasing its strength rapidly. The sea arm was regarded as the key to domination of the Pacific. The Imperial Navy, though not keen for war with the United States, believed they could survive two years of war, and the Army hoped that victory could be won in this time frame. Though Premier Konoye supported the Army policy for domination of East Asia, he wished to avoid war with America. He clashed with the militarists in 1941 and was forced by war minister Tojo to resign in October 1941. As Premier, Tojo sent Kurusu to Washington on 6 November 1941 as ambassador extraordinary to attempt to achieve a favourable peace settlement.

In the meantime, planning for the Pearl Harbour attack had been under way since January and tentative approval of the plan had been given on 3 November 1941. Tojo did not give Kurusu any new terms of reference. He was as rigid as Konoye had been in refusing to accept the conditions for settlement presented by the Americans. Faced with a determined diplomatic stand by the United States it was apparent that Japan must either capitulate or go to war. The Bushido ethic could not permit the former course and 'Operation Z' in the Pacific was allowed to develop into the Pearl Harbour attack. Throughout the planning and preparation for the attack the Japanese attitude of fatalism was demonstrated. Even while the Japanese fleet was steaming towards Hawaii, there was still the possibility of recall if diplomatic victory should occur. If the fleet had been spotted by the Americans or if the American fleet had not been at anchor on that particular Sunday, the Japanese were prepared to cancel the operation. But everything seemed to support them, even the weather. In retrospect there was more than

a small element of luck in the surprise which was achieved, since they were detected by radio operators on the *Lurline* and radar operators on Oahu. Admiral Yamamoto, the Japanese planner of the operation said: 'The only question that remains is the blessing of Heaven. If we have Heaven's blessing there will be no doubt of success.'[2] The events immediately prior to 7 December must have seemed like Heaven's blessing to the Japanese.

The strategy which led to the Pearl Harbour attack was based on consideration of many other factors. During the decade leading to 1941, there was considerable flexibility amongst world powers, who were manoeuvring for political alliances which would offer the best future. China was Japan's first target in her expansionist programme for a number of reasons. It was apparent that leadership in the Orient must fall to either China or Japan. There were opportunities for immediate economic gains by the conquest of China. More importantly, Japan realized that to expand to either north or south she had to neutralize China, either by conquest or by alliance, to secure her flank before looking elsewhere. Alliance was repugnant and conquest appeared to be a feasible and desirable solution. Japan saw the direction of movement of Germany and Italy and chose to ally herself with these countries at an early stage. At this time Germany and Russia had a non-aggression agreement and this meant that Japan need not worry about her northern borders. It appeared that Britain and other European leaders would be at least fully engaged by Germany, and indeed, probably defeated in the ensuing conflict. Thus Japan had only American interference to fear on the east. It was appreciated that American internal isolationist sentiment would deter Roosevelt from overt positive intervention in Asia. Throughout negotiations, Japan protested a desire for peaceful relations with the United States, and obviously if such a state could have been maintained without prejudice to her expansionist programme, it would have been welcome.

German successes against France and the Netherlands encouraged the Japanese in their southward aspirations. Conquest of European owned colonies in South-East Asia promised Japan self-sufficiency in oil and other essential resources. Though initially dismayed by the German attack on Russia in June 1941, Japan soon saw the widening of the European war as the appropriate distraction to cover further

[2] Nobutaka Ike, *Japan's Decision for War.* Stanford University Press, 1967, p. XXVI.

advances into Indo-China. Konoye wanted to press for an agreement with America that Japan would remain neutral in Europe and Russia in return for recognition of sovereignty in China. He tried to persuade the military leaders to dissolve the Tripartite Pact, but Tojo, the Minister for War, predicted German victory over Russia and the opportunity for Japan to make gains in the north. Japanese plans for the conquest of China had been frustrated by the stubborn resistance of the Chinese and the moral and material support provided by the United States to China. This stalemate coincided with the Axis stalemate in Europe and Africa and it has been suggested[3] that the German attack on Russia provided not only the cover but also the example for Japan to renew her efforts in a new direction.

The final decision for war was strongly influenced by economic considerations. Japan underwent an industrial transformation in the early 1900s. In 1938, most secondary industries produced six to eight times their 1931 output and the proportion of warlike commodities increased from 30 to 60 per cent. But she was extremely vulnerable in her dependence on trade for procurement of raw materials, particularly metals, oil, rubber and other strategic goods. In response to Japanese pressure on Indo-China, the United States decided to cease her export of scrap iron to Japan. This was done with some misgivings. Joseph Grew, the American ambassador to Japan, had advised two years earlier that economic sanctions should not be imposed unless the United States was prepared to back them up with arms if necessary. He wrote[4] in 1938: 'They are a hardy race, accustomed throughout their history to catastrophe and disaster; theirs is the "do or die" spirit, more deeply ingrained than in any other people'. But in September 1939 Grew cabled to Washington his opinion that verbal disapproval of Japan's actions was not enough, and that a show of force was warranted and necessary. When Japanese troops marched into Indo-China the embargo was announced. Despite several years of stockpiling, Japan was damaged by the embargo, if not crippled. It caused diversion of resources to the production and processing of iron ore from production of war equipment. Japan protested against this 'unfriendly act'.

After Hitler persuaded the French Vichy Government to grant the Japanese bases in Southern Indo-China in July 1941, the United States

[3] Yu Te-jen, op. cit., p. 157.

[4] Herbert Feis, *The Road to Pearl Harbour*, Princeton University Press, 1950, p. 101.

proposed neutralization of Indo-China to permit free commerce there. Japan rejected the proposal. Cordell Hull had recommended not imposing further economic restrictions on Japan for fear that this would drive Japan into a position where they felt compelled to attack the Dutch East Indies, bringing war to the Pacific. Roosevelt spoke to the nation on 25 July 1941 explaining that by America continuing to supply oil to Japan, war in the Pacific had been averted for two years. The next day he agreed to freeze Japanese funds in America. Roosevelt shared Churchill's opinion that Japan would not want to enter the war against Britain and the United States and would wait to watch the outcome of the struggle between Britain and Germany in Europe. Freezing of funds gave the United States the power to restrict trade to whatever degree she chose, in any commodities, by control of licences. Britain, India and Burma followed the American lead and the Indies issued a strong warning of economic embargoes if Japan did not cease her expansion. When the freeze was implemented it soon became apparent that the main effect was an embargo on the export of oil to Japan.

The impact of the oil embargo on Japan was very serious. The Emperor asked Admiral Nagano, Chief of the Naval General Staff, for advice on what action Japan should take. Nagano saw three possible courses: negotiation, economic collapse, or war. He affirmed that without oil supplies Japan could survive only two years at most. Nagano told the Emperor that Japan would probably not win a war against the United States, and he counselled an all out effort to restore peaceful relations with America; if necessary, at the expense of the Tripartite Alliance. Japan offered not to advance beyond Indo-China and not to side with Germany in war against America, if the economic restrictions were lifted. The United States rejected the offer and maintained the economic pressure. Even with stringent rationing, in 1941 Japan produced a total output of only 10 per cent of her minimum oil needs for war or training for war. Evaluation of needs against reserves coloured the strategic thinking of the militarists in Japan, who were preparing for war even as Konoye was negotiating for peace. It was apparent that in the event of war there must be early gains in those parts of South-East Asia which could provide war materials, that is, in Malaya and the East Indies. It was seen to be essential to secure the economic wherewithal to back up prolonged military operations if necessary. With the resignation of Konoye in October 1941 and the

resurgence of the military, economic factors took no less an important place; indeed, economic considerations provided the spur to military and nationalist aspirations.

Associated with both grand strategy and economics was the choice of Pearl Harbour, rather than the Philippines or Singapore or Vladivostock, to initiate hostilities with the Allies. The most pressing purpose of Japanese aggression in the Pacific was the need to secure oil and other war materials, notwithstanding the longer term plan for the establishment of the 'Greater East Asia Co-prosperity Scheme'. These economic necessities could be seized directly by assaulting the Indies, the Philippines, or Borneo or Malaya by land and sea. This approach probably appeared the most likely and would therefore meet the best prepared defences. There was the almost certain consequence that the United States, the United Kingdom and the Netherlands would immediately declare war on Japan in an area fairly remote from Japan and susceptible to interdiction of supply routes. The American Pacific Fleet based on Pearl Harbour would be in an ideal situation to attack a Japanese maritime invasion force heading for the South-West Pacific and to cut their lines of communication. There was also a risk of destruction of oil wells in the Indies by the Netherlands before they could be secured.

Any form of northern attack against Russia would have no immediate benefit and could create the need to conduct simultaneous operations on several fronts if America should support Russia and declare war on Japan. A southern approach was obviously more direct and safer.

A third possible course of action was to attempt to cripple the American Pacific Fleet in a pre-emptive strike; to leave the South-West Pacific relatively free of interference during invasions of the Indies. This option had the obvious psychological advantage of a substantial initial success, if surprise could be achieved. Operations in Malaya, the Philippines and the East Indies might then be undertaken against relatively inferior forces, since the British would be in no position to reinforce their eastern colonies significantly. Not only would war materials be secured early, but Japan's strongest potential enemy would be disabled from the outset, especially if her carriers and capital ships could be destroyed. Admiral Yamamoto, the Commander-in-Chief of the Japanese Combined Fleet, believed that surprise could be achieved in a pre-emptive attack. He had in mind the success of Admiral Togo

in 1898 at Port Arthur when his Japanese destroyers attacked and sank Russian ships at anchor forty-eight hours before war was declared. More recently, the British had conducted a very successful operation against the Italians at Taranto, when twenty-four aircraft sank three battleships for the loss of only two aircraft, thanks to the element of surprise. The concept of operations for Pearl Harbour was not new. In 1932 the commander of the US Pacific Fleet initiated a tactical exercise, wherein 150 aircraft from two American carriers launched a mock attack from the north on Pearl Harbour and the raid was judged to be completely successful by the umpires. Further development of the Japanese plan revealed that attacks on strategic targets in the South-West Pacific could be launched concurrently with a combined sea and air attack on Pearl Harbour. This course of action was chosen as the one offering the greatest benefits, though even Yamamoto realized that it would merely give Japan a good start, and would provide no guarantee of winning the war.

The final, conclusive factors which led the Japanese to decide to attack Pearl Harbour occurred during the last weeks and days before 7 December. Long after detailed planning and rehearsals for 'Plan Z' had commenced, Japan kept open the option of abandoning the attack on Pearl Harbour and indeed the commencement of hostilities in any form. If there had been a significant disruption to the Pearl Harbour attack, such as compromise of the plan, too early detection of the Japanese force by the Americans, or absence of profitable targets in Pearl Harbour, the operation could have been called off. On the other hand, if Kurusu and Nomura had managed to obtain American agreement to the Japanese proposals, war might have been avoided or at least postponed. Throughout 1941 Japan's diplomats and many of Japan's leaders were genuinely striving to reach agreement with America to terms which were mutually acceptable. Konoye insisted that Japan remain on a war preparation footing rather than naming a day to commence war.

After the imposition of the oil embargo, Konoye sought a personal meeting with Roosevelt to discuss the situation and try to establish a basis for agreement. Grew recommended to the President that such a meeting be given serious and favourable consideration, but Hull and Stimson in Washington saw the proposal merely as a stalling action and they persuaded Roosevelt not to accede to the Japanese request unless Japan offered further promises of concessions before the meeting.

There was also doubt in Washington whether Konoye could really speak for all of the power factions in Japan, especially Tojo and the other Army leaders. Grew sent one more cable predicting the fall of Konoye, the succession by the military and the inevitability of war if the meeting did not take place. Roosevelt refused the meeting with Konoye and Grew's predictions were fulfilled when Tojo took over as Premier. On 5 November an Imperial Conference established two final schemes for presentation to the United States. If these were not accepted by 25 November then war was to ensue. Neither scheme offered any significant additional concessions above earlier negotiations. Indeed the second scheme was a temporary *modus vivendi* to avert war. During October/ November, action by the Allies to strengthen their defences in the far east was hoped to provide a deterrent to warfare by the Japanese. On 26 November Hull attempted to counter the *modus vivendi* with an alternative proposal to Nomura and Kurusu. The Japanese delivered their declaration of war an hour after the first bombs dropped on Pearl Harbour.

Since Pearl Harbour and particularly since the end of World War II there has been considerable research and analysis to try to provide some insight into the whys and wherefores of Pearl Harbour, to ascertain why war was not averted. Opinions vary from those of Herbert Feis[5] who insists that war was caused almost exclusively by Japanese aggression and perfidy, to Charles A. Beard and Anthony Kubek[6] who have suggested that America deliberately forced Japan to declare war. Roosevelt was pledged to the people not to involve them in a foreign war. Kubek argues that he was fully aware of the effect that American economic sanctions would have, and he realized that Japan would be forced to declare war in economic self defence. Kubek claims that Roosevelt's refusal to meet Konoye in October 1941 showed that he had no desire to prevent war. Certainly the American monitoring of all Japanese coded messages enabled Roosevelt to know how seriously the Japanese regarded the situation. In fact Roosevelt and his staff were obviously aware of the strong likelihood of an attempt by Japan to make a pre-emptive attack. Some authors, including George Morgenstern,[7] claim that Roosevelt expected and was waiting for Japan

[5] Feis, op. cit.

[6] Robert Dallek (ed.), *The Roosevelt Diplomacy and World War II*, Holt, Rinehart and Winston, New York, 1970.

[7] ibid.

to strike the first blow. On the eve of Pearl Harbour the matter was discussed with the President who reaffirmed that America could not take the first hostile action. A warning sent from Washington to Hawaii of the Japanese intention to deliver an ultimatum (the declaration of war) was sent as a routine message via commercial radio, and arrived after the attack had finished. This lack of urgency has been interpreted to indicate Washington's preparedness to remain idle until after Japan struck.

The influence of Emperor Hirohito on the Pearl Harbour decision is not clear. Most modern authors see Hirohito as the detached Emperor/God figure, drawn into wordly affairs by the turn of events. Feis sees him as being a cautious, conservative, restraining force who seldom influenced decision making and then only in a formal and almost ritual way. In mid-1940 he counselled the Lord Keeper of the Privy Seal Kido to warn the new Premier Konoye to be prudent in his selection of a Foreign Minister. Konoye chose the forthright, outspoken and militaristic Matsuoka of whom the venerable Elder Statesman, Prince Saionji said, 'It will improve him if he becomes insane'. The Emperor was apparently doubtful about allying closely with the Axis in the Tripartite Pact in September 1940 but allowed himself to be persuaded by Konoye and Matsuoka. On 6 September 1941 at the Imperial Conference to determine Japan's future course, the Emperor quoted a philosophical poem by his grandfather, which was a plea for diplomacy rather than war. Feis sees Hirohito reluctantly agreeing to the militarists' decison for war.

David Bergamini,[8] on the other hand, has written on 'how Emperor Hirohito led Japan into war against the West'. He sees the Emperor as a man who suffered attacks of doubt and fear, but essentially as the principal decision maker. Bergamini claims there was an elaborate Court cover-plan to whitewash the Emperor and other royalty of all blame for decision making, should Japan be defeated. He sees similarities in attitudes and behaviour between Hirohito and Tojo — both with 'blind pride in the righteousness of Japan's cause'. The Emperor knowingly invested Tojo with the Shogun powers of a wartime dictator.

The Pearl Harbour decision was the end product of the influence of many internal pressures as well as external events. The militarist

[8] David Bergamini, *Japan's Imperial Conspiracy*, Heinemann, London, 1971.

Army officers were opposed throughout by the Navy who had no heart for war with the United States. They also had no illusions about the outcome of such a war. Yamamoto himself, the master planner of Pearl Harbour, expected only to gain time for Japan, but did not foresee ultimate victory. Navy Chief of Staff Nagano opposed war plans and supported Konoye in urging that peace with America should be sought even at the expense of the Tripartite Pact alliance. When it came to the final decison, however, he expressed the opinion that victory could be won in a war with America. Nomura, the ambassador in Washington was trying as earnestly as was Grew in Tokyo to arrive at a diplomatic solution. The Chief of the General Staff, Suguyama, insisted that diplomatic activity should not give way to war but must at least keep pace. He was confident in the strength of the Army, however, and he predicted victory if and when war should come. Foreign Minister Togo sought to defer the attack until America entered the war in Europe.

Probably the most telling influence on Japanese decision making came from the attitudes of Roosevelt and his Secretary of State Cordell Hull. In the early days of Japanese aggression in China, the Japanese expressed surprise and disappointment at the 'unfriendly acts' of the United States in providing material and moral support to China. This was probably not really a surprise of any kind, but merely diplomatic verbiage, designed to establish an image of righteous indignation for Japan. But the later and sterner measures by America may well have surprised Japan. Japanese leaders may have been under the misconception during 1939-40 that America would not risk involvement in war in the Pacific while her friends in Europe were having a difficult time. While there were fears of this type in Washington, and economic sanctions were deferred as long as possible, the Americans had a clear, declared responsibility to China which could not honourably be avoided. Although there was initially an isolationist attitude within America which the Japanese probably thought would deter Roosevelt from unfriendly international activities, there was a gradual hardening of public opinion and a growing dislike of the Japanese as a result of their China campaign. The strength of this growing groundswell of public opinion was probably not perceived or fully appreciated in Tokyo. The Japanese, being deeply committed to their own cause and unprepared to give way, failed to realize that they faced an equally determined opponent in Hull, who was not only a skilled and experienced diplomat, but was also a strong and rigid adversary. The United States was prepared to

stand by her principles as self-righteously as Japan was. Thus, when events had advanced to a certain stage, decisions became automatic.

The national characteristics of the antagonists and the long history of diplomatic haggling and mistrust had so influenced both nations that head-on confrontation was unavoidable. In the final weeks, desperation and indeed self-preservation probably influenced the Japanese. To go to war became the only honourable course which they could take. Whether Hull and Roosevelt knew that Japan would be forced into war by the American intractability will never be known for certain. Suffice to say that in the final analysis, America gave no quarter in the days before Pearl Harbour.

Thus the Japanese decison to attack Pearl Harbour was influenced by Japanese history, traditions and social attitudes; by her relationships with the other expansionist powers; by her own imperialist aspirations; by her economic needs and by the strong opposition provided by American diplomacy. When decisons had driven events to a stage of diplomatic stalemate, subsequent decisions were inevitable, leading to war. □

MONTHLY AWARD

The Board of Review has awarded the $10 prize for the best original article in the July 1973 issue of the journal to Captain W. L. Fowles for his contribution 'Who Will It Be'.

The Study Of Military History

Colonel E. G. Keogh, MBE, ED
Royal Australian Infantry (Retired)

HOW do you study military history? How often have I been asked that question, and how often have I found that all the enquirer wanted to learn was how to pass an examination? If that is all you want to do don't bother to read any further, for I am afraid that I don't know any short cuts, I don't know of any substitute for work. But if you want to enrich your mind with the military experience of the ages, if you want to broaden your professional knowledge and enhance your capacity to command, if you want to really understand the nature and climate of war, the following paragraphs may be of some interest to you.

There are, of course, plenty of people who can see no value in history—any sort of history. Well, one of the outstanding characteristics of most of the great men of our age is their awareness of the historical context in which they stand. Would Winston Churchill have reached the pinnacle on which he stood without this awareness? Would Charles de Gaulle have been able to set France once more on the road to power and influence without it?

We cannot escape our past. Our whole culture—the way we think, the way we look at ourselves and others, our institutions, are the product of our national experience.

Military history is the story of the profession of arms, of the influence that profession has had on the general course of events, of the contribution it has made to our national life. We need to know something of the history of our army, of its exploits, for that history conditions our professional outlook. It explains why we find it best to do things in our own particular way, and it constitutes the basis of our form of discipline.

Colonel Keogh, the first editor of the Australian Army Journal, *has written several campaign studies which have been taken into use by the Australian Army as official textbooks on military history. This article was first published in the journal in January 1965. It is again reprinted because of its continuing value as a guide to all those who undertake a study of military history.*

Military Experience

So far we have talked in general terms. Can military history do more for us than that? To begin with, let us forget the expression *military history* and think in terms of *military experience.*

Now the knowledge that every professional person has is not built up entirely from his own experience. Far from it. Law, particularly Common Law, is a code which has been built up from centuries of experience of many men. Medical knowledge is a compendium of the things that have been found out about human anatomy by all the doctors of all the ages. Doctors don't wait to find out everything from their own experiences. When a doctor, or a group of doctors, engaged in research make a discovery they usually publish the result. All other good doctors accept this finding and apply it to their patients.

In other words, the doctors are learning from the experience of others. Should the soldier do less? As a rule a bad doctor kills only one patient at a time, but a bad soldier can get a great many men killed for nothing.

So let us think of military history as *the study of military experience.*

Actually, whether we know it or not we are continually using this experience. If we did not use it our ideas on many things would never advance.

For example, before and during World War I British doctrine held night attacks to be more or less impossible. It was held that control was too difficult and direction too hard to maintain. Few night attacks were undertaken by the British on the Western Front. After the war this doctrine was maintained.

Then when the war histories came out an officer named Liddell Hart noticed the frequency with which the early stages at least of the most successful attacks had taken place in fog. Liddell Hart pursued this idea, and found that nearly all the big and successful British and French attacks had taken place under foggy conditions. On the German side the phenomenon was even more striking. Of their six attempts to effect a major breakthrough in 1918, only three were successful and they were shrouded in fog.

Liddell Hart then asked, 'If the most successful attacks were those which took place in fog, an accident of the weather which had not been planned for, would not night attacks be equally successful?'

The War Office nibbled at the idea cautiously and more attention began to be paid to night operations.

When Brigadier Pile (later General Sir Frederick Pile), who was at that time commanding the troops in the Canal Zone in Egypt, heard about Liddell Hart's finding he said, 'If troops can attack in dense fog when they are *not* expecting it, they ought to be able to attack at night when they *are* expecting darkness.' He then proceeded to prove that it was all a matter of thorough training, and night attacks became accepted.

This change in tactical doctrine resulted directly from the study of experience in World War I.

But the results did not stop there. If night operations became fairly general, there would be plenty of occasions on which one would want some light, perhaps temporarily. Perhaps one would want darkness up to a certain moment and then have the light switched on.

The tacticians stated their requirement and the engineers turned up with the answer—artificial moonlight.

So, from a study of the experiences of World War I there evolved two things—a new tactical concept and artificial moonlight.

That, I think, is a fair example of the practical application of military history. Of course, those are not the only things we can learn from World War I. The students picked out a few other useful tactical ideas, and they learned a lot about administering very large armies in the field.

We need to look at the failures as well as the successes. We need to find out the real cause of all the useless butchery, the real cause of all the shockingly bad generalship that characterized most of the operations on the Western Front.

Why were most of the generals such poor, pedestrian soldiers? What had happened to the heirs of Wellington, Frederick, Napoleon? Was it their training or the lack of it? Was it the prevailing professional outlook? Was it because too much emphasis was placed on the wrong values? For example, was there too much emphasis on sport and social activities and not enough on serious work and study? Or was it because they had failed to learn from military experience?

It was probably a combination of all these things, but it is at least certain that they had failed to read correctly the lessons of the American Civil War and the South African War.

They were still seeking victory in terms of the Napoleonic concept as expounded by Clausewitz. This formula postulated the massive assault as the essential ingredient in the recipe for victory. But they failed to take into account the principal lessons of the American Civil War, namely:

- The breech-loading rifle and the spade, used in combination, had made the defence too strong to be overthrown by Napoleonic methods.
- And since the American Civil War the machine-gun had enormously increased the strength of the defence.
- They ascribed the American failure to employ cavalry in shock action to amateur leadership instead of to the real causes—the breech-loading rifle and the carbine, and *trenches*.

The result of this failure to learn from the experience of the employment of these new weapons and methods was the terrible battles on the Somme and in Flanders. The effects on Great Britain's manpower and national economy were enormous and far-reaching. It was on these stricken fields that Britain's decline as a front-rank world power began, though the full effects were not felt until later.

And all this because her officer corps had failed to read the lessons of recent wars and to see therein the changes demanded by the introduction of new weapons. They did not have to speculate. The things experience had demonstrated had actually happened. Actual experience had demonstrated what would certainly happen in the future unless counter-measures were devised.

Let us take an Australian example of the misreading of experience. In the Palestine campaign of World War I the Australian Light Horse Regiments were mounted infantry armed with the rifle and bayonet. They were not armed with the sword or lance. They were not trained or armed for the mounted charge. But at Beersheba one brigade did undertake a most successful mounted charge. And at a couple of other places the British Yeomanry, who were armed with the sword, successfully charged the enemy.

After the war, on the strength of these isolated actions, we arrived at the conclusion that despite the fire-power of modern weapons, trenches and barbed wire, the mounted charge was still a feasible proposition. The argument that led to this conclusion violated the rules of simple logic because:

- It failed to take into account the special conditions obtaining at the time of the successful charges.
- It failed to take into account the negative side of the question —all those occasions when a mounted charge would certainly have failed, and even the occasions when charges actually did fail.

This superficial examination of the available evidence, plus unsound logic, led us to arm our Light Horse Regiments with the sword. They were still carrying the things right up to the outbreak of World War II. Worse still, they were thinking about trying to use them.

From these examples it follows that close study of experience in the sphere of weapons and devices—new weapons, new machines, new means of transport, etc.—can help us very much in the development of tactical doctrine, organization and administrative methods.

What about the art of war, of strategy, of tactical insight, of leadership? It is in these fields, perhaps, that we can extract the most value from military history. It is in these fields that we really do need experience, and it is just these fields that first hand experience is so hard to get in peace. We can get this experience only by the study of military history.

If we become involved in a great war the army is going to expand very rapidly. Promotion is going to be correspondingly rapid. Some of our officers are going to find themselves in positions of great responsibility in the field, or writing staff papers which may influence governmental decisions. We need not find ourselves in those positions entirely devoid of experience. By the constant study of military history we can acquire the experience which we shall need very badly.

I hope to show presently that the acquisition of this experience need not be all hard work, in fact a good deal of it can be a recreational pursuit.

How Do We Study Military History?

Now, how do we study military history? Two things are essential, namely:

1. The wise choice of study material. I should like to leave that till later and go on to the second essential.
2. The development of a critical approach.

When you begin any piece of serious study, as distinct from the recreational reading which I shall mention presently, first think yourself into a highly critical frame of mind. Challenge everything; accept nothing without thinking about it.

For example, an Official History says something like this—'The Divisional Commander ordered—etc., etc.' Before you go any further think about that order. Think it out for yourself. Was it a sound plan? Did it take all the essentials of the situation into account? If you had been in his place, what plan would you have worked out?

Another example of challenge, of the refusal to accept statements at their face value, is to be found in the Australian offensives on Bougainville and in the Aitape-Wewak area. The necessity of these offensives was queried in Parliament, and one of the arguments put forward to justify them was: 'To commit any troops to a passive role of defence . . . is to destroy quickly their morale, create discontent, and decrease their resistance to sickness and disease.' From this are we to assume that troops committed to an arduous offensive under severe climatic conditions are bound to have a higher morale and to be healthier than troops engaged in defence? It is true, as a generalization, that the offensive generates higher morale than the defensive. But is it true in particular cases? And do you have to mount a full-scale offensive to maintain morale, or would a modified form of the offensive be sufficient? The formation on New Britain did not undertake a big offensive; it seems to have successfully maintained morale and the offensive spirit by aggressive patrolling.

Morale is an attitude of mind. In defence the correct attitude can be fostered by means short of full-scale attack. Take the 9th Australian Division for example. Besieged in Tobruk, the division maintained morale and the offensive spirit by 'giving away' the deep and commodious Italian dugout in favour of fighting trenches, by deep patrolling, and by establishing their dominance over no-man's-land—'Our front line is the enemy's wire, no-man's-land belongs to us.'

After being shut up in the fortress for months on inadequate rations, the troops might have been a bit on the lean side, but they were still full of fight. And their health was surprisingly good—until, on relief, they got in amongst the fleshpots of Egypt.

Beware of generalizations. Ask yourself, always, is this statement true of this particular situation, of these particular conditions? Unless

you cultivate the habit of asking yourself these questions you will degenerate into a mere mechanic, and a bad one at that.

In the beginning this takes up a fair amount of time. But as you gain in experience you will find that you do it almost subconsciously. One side of your mind is taking in the written facts, the other side is working on the problems. And that is just the sort of mind that successful commanders have and that all officers need.

Don't forget to apply the same critical approach to the administrative side of war.

Learn to read between the lines, particularly the lines of the official histories. Official historians expect their professional readers to be able to read between the lines. For example in speaking of Singapore, the War Office history says, 'Many stragglers were collected in the town and sent back to their units.'

What does this statement suggest?

In an advance stragglers are to be expected. Men become detached from their units for quite legitimate reasons. We provide for them by establishing stragglers' posts to collect them and direct them back towards their units.

But when we get large numbers of stragglers behind a defensive position, and a long way back at that, it suggests that units have been broken up or that there has been a breakdown of discipline somewhere. And that in turn suggests that the general situation had reached the stage when a lot of people had lost confidence, when morale was at least beginning to break down.

Once you have started to develop this critical, challenging approach you will be on your way to acquiring the habit of sorting out fact from fiction. Our history is full of great military myths, most of which we thoughtlessly accept at their face value.

Take, for example, the story of Dunkirk. This episode has so captured public imagination that authors are still making money writing about it. It has come to be generally regarded as a glorious page in our military history. And so it is so far as courage, fortitude and discipline are concerned. But is this picture good enough for the professional soldier? Ought he not to see Dunkirk as a military operation stripped of all the glory? Looked at with the cold eye of the critical student, Dunkirk is seen to be what it actually was—a shocking military

defeat which came within a hair's breadth of bringing Britain to her knees.

At the time Dunkirk was represented to be a glorious feat. This was fair enough because in it the British people found the spiritual strength to carry on the war. To that extent the soldier was justified in supporting the myth. But privately he needs to have a good hard look at the generalship—on both sides of course—which brought about this terrible disaster to British arms.

Each year in Australia we celebrate Anzac Day. How many of us look beyond the bands and the flags, and analyse the operations? If you want to ascertain how *not* to mount an amphibious operation, or any operation at all for that matter, you will find all you want to know in the real story of Gallipoli.

Sometimes these myths grow after the event. Sometimes they are deliberately created at the time and ever afterwards are accepted as truth, too often even by soldiers.

Take for instance the myth of the 'Spanish Ulcer'. Wellington's campaign in Spain was imposing a tremendous strain on the British people. The Government explained that the campaign was imposing a still greater strain on Napoleon, that the 'Spanish Ulcer' was 'bleeding him white'.

In actual fact the campaign was having far more damaging effects on Britain than it was on France. It is extremely doubtful if Britain could have continued the war much longer for the long-suffering public had very nearly had enough when Napoleon abdicated and retired temporarily to Elba.

We are often advised that the best way to study military history is to test the decisions, plans and actions by applying to them the principles of war. In my opinion this is a bad line of approach for the following reasons:

- It restricts the scope of our inquiries from the very beginning.
- It channels our thoughts along pre-determined lines, which is the thing to be avoided at all costs.
- In the world today there are several lists of principles, lists which differ from each other in substance and in emphasis. Which one do we take? Our own has been changed at least twice in my lifetime.

Suppose we reverse the process. Suppose we set out to test the validity of our list in the light of experience. I think that would be slightly better because it will at least half open our minds to some original thinking. However, the object of our study is not to test the validity of this or that principle, it is to cultivate our minds, to fill them with the wisdom of experience. I suggest that the best way to do this is to set out to discover some principles, some *constantly recurring patterns* for ourselves.

We know that throughout nature similar causes always produce similar effects. If we can discover in the military sphere some recurring chains of cause and effect, some constantly recurring patterns, we will have learned much from experience. We will also be struck by the frequency with which the rules or principles established by these recurring patterns are violated. And we will be struck by the fallacious arguments put forward in support of each violation.

One of the clearest patterns that emerges from military history is the one which demonstrates the evils of failure to concentrate upon the attainment of the aim. Time after time, war after war, large forces are sent on missions which cannot possibly further the attainment of the aim. At the worst they jeopardize, or even prevent, the attainment of the aim because they weaken the main effort. At the best they are a wanton waste of human life. This pattern seems to apply at all levels of activity. In the field of strategy there is the example of the Mesopotamian Campaign in World War I. Closer to home we have our own Solomons and Aitape-Wewak campaigns in the later stages of World War II. The real war against Japan had moved 1,000 miles to the north. The Japanese forces left behind in these areas were isolated and helpless. They could do absolutely nothing. Why on earth did we engage in costly offensive operations to clean them up when they could have been safely left to wither on the vine? We could have collected the lot with scarcely a battle casualty when the main Allied forces brought about the collapse of the Japanese main forces.

My own reading over the last few years leads me to believe that we ought to have another principle of war in our list—the Principle of Command. It seems clear enough that the organization and maintenance at all times of a proper system of command is vital. By system of command I mean not only the commander, but the means, staff, signals, etc., to enable him to exercise command. At any rate the evidence demonstrates that neglect or failure to organize a proper system

of command has frequently been the primary cause of failure at all levels. We are all familiar with the arguments about the organization of the high command. It is astonishing how often we come across failures to adhere to this principle further down the scale. In World War II in the Middle East alone there were at least four major failures of this kind. The chaos which prevailed in the later stages of the withdrawal from Greece, and probably the loss of several thousand men, was directly caused by the failure of GHQ to establish a proper command in the Peloponnese. And they had available the means of doing it. In all probability the real cause of the loss of Crete was the failure to provide the commander with the means of exercising command. Here again the means were readily available. A corps headquarters was actually on the island. It was taken off and sent to Palestine where it remained unemployed while Crete was being lost for want of some good staff work. It remained unemployed while the first phase of the Syrian operations degenerated into a fiasco caused by a patently imperfect organization of command. After the battle of Gazala the whole structure of command in the Eighth Army was broken up, and remained broken up until Montgomery came along and promptly put it together again.

Throughout history we find time and time again a commander winning through the exploitation of the 'Line of Least Expectation'. That is to say, he found and used a line of approach which the defender had neglected to guard because he thought it to be an impossible one. We could produce a long list of examples of this. What would we learn from such a list? I think it suggests that we ought always to make sure that the impossible is in fact impossible—and then keep an eye on it.

Methods of Study

Methods of studying military history will vary to some extent with each individual, but I suggest that in all cases there are two essential requirements for success.

1. A critical, challenging approach.
2. A mind alert to discern recurring patterns, recurring chains of cause and effect.

Although method will vary with the individual, I think the following preliminary steps are necessary whatever method we pursue.

1. Be quite clear about the political aim of the war.

2. Be quite clear about the national strategy by means of which the political aim is to be secured.
3. Be quite clear about the aim of the campaign you are about to study:
   (a) How does it fit into the national strategy for the winning of the war as a whole?
   (b) How does it contribute to the overall aim?
4. Study the features of the theatre of operations, particularly:
   (a) The terrain.
   (b) The weather.
   (c) The people (friendly, hostile, or neutral).
   (d) The communications.
   (e) Resources, including foodstuffs, skilled and unskilled labour, etc.
   (f) Climate for effects on health.

These four points constitute a firm base for our study of the campaign.

Now the actual method of study. Each individual must find the method that suits him best. One method I would suggest is to set about it as though you were preparing a series of lectures on the campaign. Actually write the lectures, remembering that each lecture has a time limit. This limit forces you to concentrate on essentials, to discard the irrelevant detail. When you have written a series of lectures which give an intelligible account of the campaign, and a running commentary, you will have learned a lot about it.

Now all this sounds like hard work and so it is. Unfortunately there is no substitute for work. However, there is another very important side of military history—the study of the human factor in war—which need not be so frightening.

The basic material which the soldier uses in his profession is human nature—men and women. He must know how people react to the stresses of war, and how they react to danger and adversity, to triumph and disaster.

Where Do We Find the Material?

Where do we find the material for the study of the human factor in war, of the actions, emotions and thoughts of ordinary men and

women and of the art of leadership? Fortunately this part of our study need not be hard work. It can indeed be a recreation. Nearly everyone reads for recreation. Why not systematise this recreation and turn it to good account by reading for pleasure books with a direct or indirect bearing on the subject?

What sort of books should we read to give us an insight into the human factor? Well, we can read the heavy tomes with the psychological slant but we can hardly call them recreational. I think we will get on far better, we will acquire a deeper and more lasting knowledge of human beings at war if, with our minds always alert to pick out the lessons, we read:

- Biographies.
- Appropriate novels.

It is unnecessary to labour the value of biographies, but it is desirable to add a word of caution. The author is sometimes apt to be carried away by his admiration of the person he is writing about, to make out he was always right, to make him into too much of a paragon of all the virtues. And the autobiographies, the books written by the actors themselves, very often suffer from the same defect. They seldom admit they were wrong and, writing from hindsight, they are usually able to prove that they were right. So read these books with a critical eye. Don't let yourself be carried away by the author's plausibility or eloquence. With this proviso these books are a very valuable source of information, and are generally quite easy to read.

Historical and War Novels

Now the novels. Don't despise the novelist, but make a distinction between the author who writes merely to spin a good yarn and the author, the serious novelist, who writes because he has something to say, some important comments to make. It is probably true to say that the novelist and the dramatist have done more to directly influence the development of thought and ideas than all the philosophers. While it is true that the philosophers and the thinkers produce the basic idea, it is the novelist and the dramatist who 'put it across' by translating it into terms which ordinary folk can understand and appreciate, into terms of universally experienced human emotions — love and hate, courage and cowardice, hope and despair. Consider, for instance, the tremendous influence of the novel *Uncle Tom's Cabin*. Up to the time of its publication there was a chance that the issues which divided the

Northern and Southern States of America could have been settled by wise statesmanship and public forbearance. Its publication made the civil war virtually inevitable. It focused all the issues upon a single point—slavery. It enraged the South and it inflamed the North. In far away Europe, particularly in England and France, it created a public opinion which compelled the governments to drastically modify their policies of active sympathy towards the Southern cause.

World War I produced a crop of novels which profoundly influenced the course of events over the two following decades. With few exceptions all these books expressed the violent revulsion of the common man against the stupidity and futility of the dreadful blood-baths to which they had been subjected on the Western Front. You can learn all about the strategy and the tactics of the Western Front in half a dozen printed pages, for there was precious little of either to write about. But if you really want to understand, if you want to find out what the war was like from the point of view of the fighting man, read novels like *All Quiet on the Western Front, Not So Quiet, Her Privates We, War by ex-Private X, Covenant With Death,* etc. Read the poetry of Siegfried Sassoon and Wilfred Owen, and plays like *Journey's End.* Above all, read C. E. Montague's *Disenchantment.* Every officer ought to have this little volume of beautifully-written essays. He ought to keep it by his bedside and read a few pages every night. That will keep his feet on the ground and his head out of the clouds.

From these books you will learn more about the real nature of World War I than from all the learned volumes of strategy and tactics put together. You will learn about the incredible imbecility of the worst vintage generals in all history, of the shocking staff work, of the sheer ineptitude of military leadership all the way down the chain of command. You will understand why the people who make and unmake governments in democratic countries cried out in revulsion 'To hell with brass hats and red tabs, to hell with generals, we shall have no more of that nonsense'. And when you have understood that you will understand the motive force behind the policies of disarmament and appeasement which led step by step to World War II.

In Service circles it is fashionable to blame the politicians for this disastrous disarmament policy. Anyone who has given thoughtful attention to the literature of World War I would know that this view fails to trace the chain of cause and effect back to its origin. The politicians were simply reflecting public opinion. That public opinion had been

created by the war itself. It had been expressed, focused and consolidated by the literature of the war. Some of the writers, C. E. Montague for instance, went right to the heart of the matter—the downright ineptitude of the military leadership and the reasons for it—others saw only the result. If the soldiers had conducted their business more efficiently, as they did in World War II, the literature would have had quite a different tone. In the ultimate analysis of cause and effect the soldiers were responsible for the wave of pacifism which swept the democratic world after the war, not the writers or the politicians. They only expressed the public opinion which the soldier had created.

The novels of World War II reflect a totally different feeling because the field leadership at any rate was infinitely better. The value of these books lies in the presentation of the cold facts in a way which enables us to grasp the 'feel' of the thing in a very vivid manner. For example, we may read that the Allies sent to Russia by the Arctic route so many tanks, aeroplanes, trucks, so many millions of tons of shell, that so many ships were sunk, so many lives lost. All good stuff for a planner to know, but it leaves you stone cold, it raises no feeling at all. But if you read HMS *Ulysses* you will have a very good idea of what the cold statistics meant to the Allies in terms of human values—in terms of human courage, resolution and suffering. And if you read David Forrest's *The Last Blue Sea* you will learn more about the impact of the jungle on young troops than all the text books can give you. If in the pursuit of your profession in peace or war you forget those human values, all the rest of your knowledge will go for naught. Those values are your indispensable tools of trade.

The Documentary

There is another, though rarer, type of book which presents both the technical and the human aspects of war in an easily digested form. I don't know the literary term for this kind of work. It resembles a documentary film which presents the dry facts of some particular aspects of life, or some particular persons or events, by clothing them with human values, reactions and emotions without passing into the realm of true fiction. The characters, instead of being creatures of the writer's imagination, are real people, people who have actually lived and whose actions have influenced the course of history. Instead of simply giving us the bare, and often unimpressive facts, the writer brings them back to life, recreates the scenes and the scenes and the actions he wants to

present to us. Treated in this way by a skilful writer, the facts we are seeking become more vividly impressive, more easily remembered and more easily read.

This form of literary expression has been brought to near perfection by a school of American writers. In the sphere of military history perhaps the leading exponent is Bruce Catton, whose magnificent works on the American Civil War vividly depict its strategy and tactics, the personalities, and the varying degrees of abilities of its leaders, the reactions of the troops to the ebb and flow of victory and defeat. All the great lessons are there, timeless as time itself—the results of half measures, of indecisiveness, of bad staff work, the influence of selfishness and personal ambition, the little things that go wrong and cause great disasters, the over-riding importance of the human factor with all its strength and frailty. These things always have been and probably always will be, the factors which determine the issue of victory or defeat.

In his book *A Stillness at Appomattox*, Catton gives us an almost exact representation of one of the major problems of the atomic battlefield—the exploitation of the hole punched in the enemy's defences by a nuclear explosion. The Union army faced the Confederates in strongly fortified lines at Petersburg. When several assaults had failed a Union engineer suggested driving a tunnel under a vital point in the Confederate works and blowing it up. That part of the programme was an immense success—what was probably the biggest explosion in any war up to that time blew a huge gap in the Confederate line. The rest was a pitiable fiasco. Through the neglect of elementary principles, through the failure to do simple things which could reasonably be expected of a junior subaltern, experienced generals failed completely to exploit the opportunity. It is remarkable how monotonously disasters occur through the failure to do simple, elementary things. History may not repeat itself, but by Heavens, the mistakes of history do. Are some of us going to make the same mistakes on an atomic battlefield?

Recently an Australian author, Raymond Paull, made a very creditable attempt to give us in this documentary form the story of the early stages of the war on our own northern approaches. His *Retreat From Kokoda* is, I think, the first military classic this country has produced. Despite certain attempts to discredit this book, it is chock full of lessons which are of the utmost importance to the Australian Army. More recently an Englishman has given us the story of

the destruction of the Normandie Dock at St Nazaire in *The Greatest Raid of All*. While this book lacks something of the power and sweep of the other works referred to, it could almost be regarded as a text book on the organization and conduct of an amphibious raid.

Some years ago, during a wet spell on a holiday, I picked up a book with the unpromising title *Prepare Them for Caesar*. Up till then Julius Caesar had been for me a shadowy, academic figure. In the book he came alive, a very human figure. Reading it I found what Wavell tells us to seek. I began to understand why men followed Caesar, why his soldiers stuck to him when his cause seemed hopelessly lost.

The great merit of these books—the novels and the documentaries—lies in the fact that they do not require hard study, they are truly recreational. Nevertheless every one you read adds a little more to your knowledge of war. Subconsciously your trained mind will be at work criticising, evaluating, picking out the lessons great and small, lessons which are more likely to stick because they are expressed by living, human characters instead of cold, inanimate print in a text book. Subconsciously the climate of war, the vision of men and women in action from the cabinet room to the forward area, seeps into your soul and becomes a part of your being. A sympathetic understanding of human nature will be created in your mind, an appreciation of its grandeur and its frailty, its varying motives, its hopes and ambitions and fears, its cruelty and its compassion. It is not sufficient for the soldier to be aware academically of the various facets of human nature. He must have a far deeper awareness than that. The best way to acquire that essential awareness is to read the works of good writers whose talent enables them to present human beings in a way which touches our hearts as well as our minds.

Conclusion

The officer who studies military history along the lines of recreational reading and analytical research will benefit in three ways:

First, he will develop a mind rich in the experience of war in all its aspects. The climate of war will become an integral part of his subconscious being. Without consciously thinking about it he will have a cultivated awareness of the pitfalls which strew the path of the commander and the staff officer, and he will be able to see the possibilities and the dangers of any situation or any course of action.

Secondly, he will develop the power of analysis—the power of breaking up the problem into its component parts, balancing one against the other, and arriving at a sound solution.

Thirdly, it will fill his mind with knowledge of human beings in combat, and that is essential knowledge for the soldier.

I have recommended two types of literature. Each type complements the other. The official histories give you the bare facts, the skeleton. The biographies, novels and the documentaries clothe the bare bones with the flesh of human beings in action.

Finally, remember that unless your critical analysis of fact is not tempered with sympathy and compassion you will never learn anything about humanity. □

ANNUAL AWARDS

The Board of Review has awarded the annual prize of $60 for the best original contribution published in the *Army Journal* during the year ended June 1973 to Group Captain K. Isaacs for 'Sixty Years of Australian Military Aviation'.

The second prize of $20 has been awarded to Colonel D. Willett for 'Decision Making and Defence Organization'.

BOOK REVIEWS

EISENHOWER AS MILITARY COMMANDER, by E. K. G. Sixsmith. B. T. Batsford Ltd, London, 1973, pp. xi + 248. Price $A11.10.

Reviewed by Major Warren Perry, RL.

TO analyse and to evaluate performances of higher commanders without considering the societies in which they were trained and conditioned is to deal unrealistically with imaginary men. It is a fallacy too, to assume that a commander of armed forces is necessarily a man for all seasons. Indeed a commander may succeed brilliantly in one situation, as did Frederick the Great at Leuthen in 1757, and elsewhere and in other circumstances fail disastrously, as Frederick did at Kunersdorf in 1759.

Readers who enjoyed Major General Sixsmith's *British Generalship in the Twentieth Century* will find this Eisenhower work equally profitable to study. It deals with problems of supreme command; it deals with the unified command of Allied forces on land, at sea and in the air; it outlines the major operations Eisenhower conducted from the invasion of North Africa in November 1942 to the Normandy landing in June 1944 and the final destruction, in May 1945, of the enemy forces in Western Europe. It also describes Eisenhower's personality and methods and it illustrates his ability to get good results from difficult subordinates and to work in harmony with politicians.

The book touches on the command and staff machinery with which he planned and directed his operations in North Africa, Sicily and Italy and later in Western Europe. For magnitude and complexity

this machinery surpassed that of all previous wars. These features stand out boldly if they be compared with either Lincoln's machinery for conducting the American Civil War or with that of Foch in 1918 when he became the Generalissimo of the Allied Land Forces on the Western Front. This comparison can be made quickly by an additional study of the relevant parts of T. Harry Williams' *Lincoln and His Generals* and Cyril Falls' *Marshal Foch.*

Two weeks before 'Duntroon' was officially opened in June 1911, Eisenhower entered 'West Point' as a cadet and in July 1915, during the Gallipoli campaign, he was commissioned in an infantry regiment. When the USA entered World War I, in April 1917, he gained no operational experience for he was retained at home on instructional duties.

During the inter-war period he met Patton and gained useful experience in a variety of command and staff postings. In 1925-26 he attended the Command and General Staff School at Fort Leavenworth and, in 1927-28, the War College in Washington. In January 1933 he joined the staff of the Chief of Staff of the US Army, General Douglas MacArthur. When MacArthur, in October 1935, became the Military Adviser to the President of the Philippines, Eisenhower went to Manila with him.

Although the USA remained neutral when World War II began Eisenhower took steps to leave the Philippines to return to duty in the USA. What kinds of relations did Eisenhower establish with MacArthur? The author has pointed out that: 'Despite his long service with MacArthur, Eisenhower does not appear to have been unduly impressed by him or even to have held him in very high personal regard.' By December 1939 Eisenhower had returned home and taken up duty in a staff appointment at the headquarters in San Francisco of an army.

After Japan attacked Pearl Harbour on the 7 December 1941 the USA entered the war in the Pacific and on the 11 December 1941 the war in Europe. Thereafter, events in Eisenhower's career moved quickly.

On the 14 December 1941 Eisenhower became Deputy Chief of the War Plans Division of the War Department at Washington and a brigadier general. It soon became evident that the US Chief of Staff, General Marshall, had not misjudged Eisenhower's potential ability. Henceforth, with each step in rank and status, Eisenhower grew in

stature; and he showed himself to be a shrewd judge of men and events and to have an unusual grasp of the significance of air power and its role in military operations.

When Eisenhower arrived in London in June 1942 to assume command of the US Forces in Europe he believed his immediate task was to prepare to open up a 'Second Front' in Western Europe. But this was not to be. On the 8 July 1942, the day after he became a lieutenant general, the CIGS informed him of the British decision not to invade the Continent in 1942.

So Eisenhower moved to the Mediterranean area. In November 1942 he invaded North Africa with Allied forces to capture Tunisia. In the following month he confessed that: 'High command, particularly Allied command, in war carries with it a lot of things which were never included in our text books, in the Leavenworth course, or even in the War College investigation.' But he continued to cope satisfactorily with difficulties and he was assisted by a practical knowledge of human behaviour and of the retarding effects in Allied forces of national prejudice. According to the author: 'He determined from the first that he would have a command and staff system devised for the tasks in hand which avoided divisions along national or service lines.' Any officer who failed to co-operate, for either national or service reasons, was disposed of quickly. A system of this kind was, of course, an entirely new concept and it transcended anything that had existed in the last year of the World War I.

As a supreme commander, Eisenhower's career was a record of another kind of training and of another kind of experience, which differed from the training and experience hitherto gained by higher commanders of national forces drawn exclusively from one or other of the fighting services. In February 1943 he became a general and Supreme Allied Commander, Mediterranean. In July 1943 he directed amphibious operations against Sicily; and, in September 1943, he began the invasion of Italy.

Then in December 1943 President Roosevelt informed Eisenhower that he was to command Operation *Overlord*. In January 1944 Eisenhower took up duty in England as Supreme Commander of the Allied Expeditionary Force, Europe, to prepare for the invasion of Western Europe which began in June 1944. Satisfactions of success blended with adverse criticism followed. Strategical discussions on the choice,