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Photo: Australian War Memorial, Canberra.

MILNE BAY

Japan launched her attempt to conquer an empire in South East Asia and the Pacific on 7 December 1941. By the end of March 1942 her forces were in possession of Hong Kong, Malaya, the Philippines, Indonesia, all the important places on the north eastern coast of New Guinea and several Pacific Islands. The Allies were endeavouring to establish Australia as the main base for a counter-offensive. To prevent the establishment of this base the Japanese decided to cut the Pacific line of communication with the United States by extending their conquests further to the south. As part of this scheme they planned to seize Port Moresby and Milne Bay in south-eastern New Guinea and the Solomon Islands.

At the middle of August the garrison of Milne Bay comprised 7 and 18 Australian Brigades with a battery of field artillery and some anti-aircraft batteries. The Japanese enjoyed freedom of movement in the surrounding waters.

On the night 25/26 August a Japanese force landed on the north shore of Milne Bay. A fortnight's hard fighting followed, in the course of which the invaders were virtually destroyed and the survivors forced to withdraw. This was the first occasion on which the Japanese Army had been decisively defeated since it entered the war.

The picture shows two Japanese tanks knocked out during the battle.

AUSTRALIA ALONE

Captain H. L. Bell

Royal Australian Infantry

WHEN our first real national defence policies were formulated after Federation, the tendency was very much to think that Australia might have to "go it alone". True, the Royal Navy was expected to provide our real defence, but the role allotted to our Army was solely to defend our shores against possible raids, until such stage as British aid restored the situation. We even framed in our Defence Act a statute limiting the service of soldiers (but not sailors!) to the Australian continent — a law that has plagued the Army ever since and sowed suspicions of Australian half-heartedness on the part of our various allies.

But when put to the test in 1914 Australia did not have to play a lone hand and, in fact, sent an Expeditionary Force of 350,000 (of whom, incidentally 205,000 became battle casualties) to the European War. With almost no logistical backing, and very little in the way of technical support, our contribution, even though it achieved results out of proportion to its size, was merely as a part of the British Army. In World War II our early contribution was the same, par-

tially equipped by us it is true, but still backed up once again by L of C troops, technical support and equipment from the United Kingdom.

As Japan entered that war this state of affairs came to a sudden close, and the Royal Navy's pre-eminence disappeared with the *Prince of Wales* and *Repulse*. But even then, though we put into the field an army largely maintained by our own efforts, we were still not alone. America had entered the war in the Australian theatre, to our great relief and advantage. Subsequent Australian operations in the South West Pacific were merely as a part (if albeit, a great one) of the overall U.S. strategy. Once the American forces moved from the area we did make an effort to "run our own show" in a number of tough little campaigns against the long by-passed Japanese, but whether these operations contributed anything to Japan's defeat remains a debatable issue.

What of our post-war policies? Something vague, if one recalls, about co-operating with the British Commonwealth and the United Nations. But as the threat

of Soviet Russia became apparent Australia did initiate a policy — namely participation in the Middle East theatre against Russia. At this stage, the limited U.S. means of atomic bomb delivery (by propellor-driven bombers) and the almost non-existent Russian means of retaliation, dictated that World War III would have been in its early stages, at least, "conventional". In view of Russia's immense superiority in ground forces, our plan, of some three divisions and two armoured brigades for Middle East operations, was a worthwhile one.

But it had one fault — it came too late. By the time we had our three divisions-worth of National Servicemen it was obvious that either there would not be a World War III or if there was Australia could not get to it. Both great powers had the means of nuclear delivery, the Middle East's strategic importance had greatly declined and International Communism was winning hands down without any need for World War III.

It was at this juncture that China entered the scene by sending a few hundred thousand troops over the Yalu, and with this our policies had to change once more. The threat to the Free World was the insidious Communist subversion and conquest of one Asian country after another — North Korea, China itself, Tibet, North Vietnam. No longer the World War III, no longer the 3rd A.I.F.; the need was for "fire-brigades" to extinguish limited wars in South-East Asia. The result is our

present policy; a small army, ready to fight as a contribution to the SEATO Alliance. As a policy it is 100% correct — three divisions with World War II equipment in a year's time are cold comfort to the citizens of Saigon and Bangkok — a well equipped and ready Task Force next week, however, does mean something.

The "National Disease"

All nations and peoples have their less-pleasant characteristics. We Australians have one in particular which could be likened to a "National Disease" — namely our swollen-headed ideas as to our national importance.

Australia does not matter one half-penny in the international scene and the sooner we realise it the better. If we disappeared tomorrow the world would go on with little change. We would not be missed, except it is hoped, in sentiment by our friends! True, there might be a wool shortage, but no doubt certain overseas synthetics manufacturers would be only too eager to solve that problem!

Because of our isolation we tend to look at the world with Australia as its centre, rather than as an appendage on the outer fringe of the inhabited globe. In fact, unpalatable as it may seem, we rate less attention from world diplomacy than the affairs of Yemen, Ghana and Venezuela. We delude ourselves that the Japanese national ambition was to populate Australia when in fact the Japanese are most resistant to emigration, even to

an attractive prospect like Brazil or to their own northern island of Hokkaido. We delude ourselves that the Japanese aim was to conquer Australia, when in fact they had no such plan until the start of the American build-up of Australia as a base against their newly-won possessions. Not 50% of Australia's Army and not 5% of the citizenry realise that the Coral Sea invasion force was headed for Port Moresby, not Australia, and in any event was so small that it would have had a hard time conquering Queensland even if unopposed. We fondly believe that American forces were rushed to Australia because we really mattered, not that we should not be ever grateful for their arrival. But the brutal facts were that they came (a) to establish a staging base for the relief of the Philippines; (b) because the Philippines fell and the reinforcements were diverted here; and (c) because Australia was at that time the nearest base available for operations against the Japanese "defensive perimeter".

We constantly brag about being the best, biggest and most wonderful nation in the Southern Hemisphere. Have you ever pondered over this hollow boast? It means we are better, bigger and more wonderful than New Zealand, Chile, South Africa and Argentina. When we start to view our national importance less in terms of gold medals at Olympic Games and more in terms of guided missile destroyers ready to put to sea, then we will see our strength in its true perspective.

This "disease" has infected our national thinking at all levels. Over the years, as a nation, we have tended to say a lot in international circles, but to offer little. We make various pacts and defence arrangements with other nations, yet maintain a microscopic army that can't even compel an unwilling recruit to leave Australian shores!

In the ultimate, Australia will be able to rely on one nation — Australia.

Anything else is a bonus.

The Three Threats To Australia

There are three foreseeable threats to Australia's security. We say foreseeable, because the ebb and flow of world politics is likely to throw up unlikely events along with the predictable. Ten years ago who would have dared to prophesy (a) Independence in the Congo? (b) Such nations as Western Samoa, Cyprus or Togo? (c) Communist missile bases on Cuba? (d) A man in space? (e) Friendship between France and Germany? To do so would have branded one as the village idiot!

However, the three foreseeable threats are:

- a) The immediate — Communist subversion of South East Asia.
- (b) The near — Indonesian expansionism.
- (c) The ultimate — World domination by Communist China.

The Immediate Threat

The Communist subversion of South East Asia is a threat that our current defence policy is well

designed to meet. Perhaps if our Allies were unkind they might accuse us of an effort not commensurate with our influence in SEATO councils. Nevertheless, as a contribution to SEATO our forces are admirably organised, within of course, the confines of our present expenditure.

No one would suggest that South East Asia be written off as a lost cause or that we should slacken our attempts to build SEATO into a real force. But judged on performance, there is some ground for believing that maybe we are not going to win in South East Asia. The tragic fact is, of course, that the present stage of SEATO development, insufficient as that is, is the stage that the West should have reached five years ago. It may well be that the horse has bolted.

SEATO lost that horse at the time of the Laotian crisis of 1960-61. There can be little doubt that but for the reluctance of Britain and France the U.S. would have gone into Laos and the rest of SEATO with it. The Americans not unreasonably finally demurred, presumably because they wanted intervention to be identified as an Allied and not an American venture, and because they had recent memories of "holding the baby" in the supposedly United Nations effort in Korea. No amount of reassurances since (in the way of planes to Thailand or prompt action in Brunei) can dispel the suspicion that Britain and France have little desire to be embroiled in a theatre from which they are making haste to

withdraw. To be fair, let it be remembered that even on a population basis Britain's overall SEATO contribution outweighs ours (we, who should be the most affected if SEATO fails). But the presence of France in SEATO, now that her forces have withdrawn from the area, can hardly be encouraging to the Asian members of the Alliance.

Even conceding that the Communist Laotian soldier may be no better than a Royal Laotian soldier, a "neutral" Laos must, left to its own devices, end in a Communist Laos. And, as U.S. withdrawal from the country was the result of U.N. mediation, it is difficult to see, in view of America's susceptibility to U.N. opinion, how she could return in force.

With Laos Communist it is equally difficult to see how the war in South Vietnam can ever be won—even with direct SEATO intervention. Perhaps the Vietnamese will win even without intervention, but in spite of optimistic reports this could be doubtful. Too often we read the old story of Viet Cong defeats which resulted in the "clearing" of an area only to find next month that they are back again. If SEATO does go in, no doubt the Viet Cong will be defeated — whereupon they will retire into "neutral" Laos to wait for a better day. And meanwhile the Vietnamese peasant will be heartily sick of this war which has been going on for 18 years. He will be past caring who wins so long as someone does and finishes the war with it.

If Vietnam goes who could blame Thailand for turning to "neutralism". There are already signs of Thai uneasiness. Maybe this is merely to jolt SEATO into more positive action, but it could well be a little bit of insurance for a rainy day. With Thailand neutral that leaves Malaya, for Malaysia notwithstanding it is hard to see how the Malayan Chinese cannot become the dominant race of that country. And with the ever present Communist subversion, particularly of the young Chinese, no one could expect Malaya to stand alone in a Communist South East Asia.

And that leaves, between us and Communism — Indonesia.

So let's not write off South East Asia. That would be defeatism, moral cowardice, and neglect of our responsibilities to our less well-developed neighbours. But let us at the same time make a few defence plans of our own, just in case that one day the Allies decide that perhaps Asia is not worth the effort.

The Near Threat

Consequent upon the birth of the multitudinous nations of Africa the U.N. General Assembly became dominated by its Afro-Asian members. Therefore any consideration of an Australian/Indonesian clash must be coloured by the following —

When a Western nation wages war the Afro-Asians say "aggression".

When an Afro-Asian nation wages war the Afro-Asians say "liberation".

When a Communist nation wages war the Afro-Asians say nothing.

On the subject of Indonesia, one thing must be made clear. People who know the country and whose opinions one must believe, are quite emphatic that the Indonesian attitude towards Australia is one of a genuine desire for friendship. It has been stated, many time over, by such observers that in spite of what Australia may fear, Indonesia has no designs on Australian New Guinea or the territories of any other nation.

This does not go down well with some of the Australian populace whose current feelings on Indonesia, however misinformed they may be, display the greatest public interest shown in a current affairs issue since World War II. In fact, possibly a majority of Australians favoured the Dutch over the West New Guinea issue. However, close examination indicates that Indonesia's claims had considerable merit. This, of course, leaves out the indigenous inhabitants whose views, like those of the Goanese, Katangans and Kashmiris, do not seem to have been considered by the United Nations. Doubtless the New Guinea people would have been better served by Holland, but the plain fact of the matter was that the Dutch case was not a very strong one. West New Guinea was always an accepted part of the Netherland Indies even if rather a neglected one. The fact that its population were not Javanese did not make it different from numerous other parts of Indonesia, and the Dutch decision to stay on was

prompted solely by Dutch internal politics and a (genuine) desire to redeem Holland's prestige in the eyes of the world. Those Australians who wanted intervention over Dutch New Guinea were supporting a rather shaky cause. Anyway, if they wanted to do so ten years ago was the time to have started intervening.

But what of the future. Will Indonesia's friendship continue? It may well not, and any one of three issues will cause this. They are:—

- (a) Unrest in New Guinea.
- (b) Indonesian expansionisms.
- (c) A Communist Indonesia.

In New Guinea, one of two things will happen. Firstly, the West New Guinea people may resist Indonesian rule, as other Indonesian minorities have done before in the Celebes, Moluccas and Sumatra. Such an event will ultimately rouse sympathies with the native people on our side of the border, for whatever the "old New Guinea hands" may say, a tide of nationalism will sweep through Australian New Guinea within the next decade. Remember 1957 when Ghana became the first independent African ex-colony? The Belgian Congo was then commonly described, with Portuguese Africa, as being the last African colony likely to achieve independence! This nationalism, coupled with unrest in West Irian, will become a source of friction between Australia and Indonesia.

Secondly, the West New Guinea peoples may accept and enthuse over the Indonesian

administration. This will be particularly so if the suggested U.N. financial assistance to West Irian development outstrips the money that Australia can, or will, put into her New Guinea possessions. News of faster material progress in West New Guinea will soon cross to the East, and natives whose tribe has been split by the European-imposed boundaries have long been heard to compare the merits and demerits of service with the Australians and the Dutch. Any awareness of a backwardness under Australian tutelage, coupled with a nationalistic upsurge, could easily result in civil disorder. And civil disorder would be an open invitation for the West New Guinean to cry for assistance in liberating his brothers across the border. If Holland couldn't keep out infiltrators we certainly won't, not with that frontier to patrol! Whatever the direction of West Irian's future, strained relations between Australia and Indonesia seem likely.

The next, even greater threat is the rise of Indonesian expansionism. With his country's economy steadily deteriorating, Dr. Soekarno may well have to divert his people's attention to outside ventures. The success of such a policy was evidenced by the popular support he received on the West Iran question. To an Indonesian, Dutch New Guinea was a personal affront, and the "liberation" of West Irian a far more pressing need than economic reform at home. If you still doubt the success of such a policy then look at President Nasser, who is doing very well just now.

Not that one wishes to defend Portuguese colonial interests, but there are already signs of Indonesian pressure against their part of Timor. And this in spite of Dr. Subandrio's public statements that his nation has no ambitions in that direction. Indonesia's moral support of the Brunei revolt and its opposition to Malaysia are sufficient evidence of Indonesia's covetousness over British Borneo. Of course, we were told the pro-Indonesian rebels were not supported by Indonesia. Perhaps the support came from the Philippines who have their own (rather than Indonesian) claims to press in Borneo; or from the Communists, whose main adherents in Borneo (among the local Chinese) favour Malaysia; or perhaps from Indonesia itself, without Government knowledge — in a country where the Army has its fingers on even the minor strings of local government. You make your own choice.

The Indonesian "confrontation" policy against Malaya is a further example. Malaya, with its almost non-existent air force, pitiful navy and nine battalions is claimed as a "threat" to Indonesia. All the features of future military expansionism are there.

It would not be hard to conjure up some perfectly good reasons (as good as the ones that the Nassers and Nkrumahs present to gain General Assembly support for their claims) as to why Australia has cheated Indonesia of its rightful heritage. Some bright spirit will come up with the "discovery" that more Melanesians live west of the

border than east of it, so why not a Union of Melanesia? One of the Indonesian claims to West Irian was its former inclusion in the Sultanate of Tidore, not that the good Sultan probably ever saw it. To where did the Sultanate's limits extend? The Sultan was around long before Germany, Britain and Holland divided the island so one can only presume that the limits of his former domain are vaguely defined, vaguely enough to argue that it extended further east than the present border. The basic ingredients for future trouble are all at hand.

The third cause of a clash could be Indonesia's conversion to Communism. Most sources state that despite strong connections with the Communist bloc, Indonesia will not go Communist and certainly Soekarno keeps the local Communists at a reasonable arm's length. The two bulwarks against Communism are, of course, Islam and the Army but strong as they are, they will not resolve the approaching crisis.

This crisis is the over-population of Java, where most of Indonesia's 100 million people live. Up to now this rich island has been able to feed its increasing millions, but a real starvation problem is approaching and all the efforts of Indonesia, the U.N. and the Colombo Plan will not be able to match the population increase. It has been stated that merely to shift the yearly population increase from Java (some 1500 to the square mile) to Sumatra (42-50 to the square mile) and set it up able to grow its own food, would be a task beyond the financial limits of the

entire Indonesian budget. So unless this problem is resolved, as seems most unlikely, nothing can save Indonesia. A hungry man soon forgets his religious or political beliefs if forgetting them fills his belly.

Where does this put Australia? If we expect world opinion to save us in a clash with Indonesia over New Guinea we may be expecting a little too much. No matter how good our case, there is not the slightest doubt that the United Nations would either support Indonesia or at best remain neutral. America would then be in the unenviable position of having to choose between:—

- (a) Supporting Australia, and thus alienating the world's fifth largest nation—already hovering on the brink of Communism, not to mention alienation of the U.N. General Assembly, a body to which America, alone among the permanent Security Council members, dares not ignore.
- (b) Supporting Indonesia, which would not please most of her European allies, would probably be unpalatable to American public opinion and would be tantamount to doing Khrushchev's work for him.
- (c) Supporting nobody, except by mediation. Mediation in this day and age amounts to admitting that "Might be Right" (West Irian) or leaving the situation back where it started (Laos).

With the fate of the cold war hanging upon the "uncommitted

nations" of the world, no-one could blame the United States; in fact one could only suggest that the logical course would be to gracefully "bow out".

For those who put their faith in the Anzus Pact a quick perusal of that writing will show four points of note:—

- (a) The Pact was designed as a protection against Japan (indeed it was Australia's price for acceptance of the Japanese Peace Treaty). Note that the second paragraph of the Anzus Treaty states "Noting that the United States already has arrangements pursuant to which its armed forces are stationed in the Philippines, and has armed forces... in the Ryukus, and upon the coming into force of the Japanese Peace Treaty may also station armed forces in and about Japan to assist in the preservation of peace in the Japan area".
- (b) Although Article IV deals with armed attack on any of the parties, including "the island territories under its jurisdiction", it would only need a U.N. vote to suddenly decide that the U.N. Trust Territory of New Guinea is no longer under such jurisdiction.
- (c) The Treaty makes no mention of subversion or internal disorder.
- (d) The Treaty is in force "indefinitely", but any party may withdraw at one year's notice.

A conflict with Indonesia, although a "limited war" by

world standard, would be for us very much a major war. Even should we avert a clash for the next decade, the eventual rise of Communism in Indonesia will demand some form of national mobilisation. It is true that in such a case the United States would certainly be involved on our side, but one of her terms, very rightly, would be a vastly stepped up defence effort on our part.

So far from being unable to "go it alone" we are going to have to whether we like it or not. If we are not in a position to at least check Indonesia in an armed clash we may well be diplomatically outmanoeuvred in the same way as the Dutch. One cannot bargain with an empty hand.

At the same time we must at all costs try to convince Indonesia that we desire peaceful relations with her. Let us continue with Colombo Plan Aid. Let us take increased numbers of Indonesian students. Let us train their officers — after all if they wanted to do a little espionage on our Order of Battle they can get it out of the telephone book! Let us sell them military equipment — if we don't the Russians will. A promise of friendship coupled with an openly-stated intention of not permitting ourselves to be dictated to is more likely to clear troubled air than vacillation.

Of course the best solution is American involvement so the sooner we get our ally really committed on this continent, the better it will be for us.

The Long-Term Threat

At some time in the future of mankind, the greatest single power in the world will be Communist China. But whereas the other Communist "Giant" is tending more and more to modify its still-pursued aim of world domination in favour of internal material welfare, China is not likely to follow this path. Even if an effective birth control policy was introduced tomorrow by China, there is hardly the remotest chance of a Western-style living standard reaching China's millions. It is this utter impossibility of raising China's living standards to anything approaching that of the West that is the most terrifying aspect of China's future.

It means that all of China's productivity will be marshalled in the furtherance of her stated plans of Communist world domination, whereas our Western productivity is going to be used more and more to produce those items of personal welfare which we (or our advertisers) insist are necessary to sustain life. To those who question the ability of China to match the West, one can only suggest that they reflect on China's condition when the Communists took over, and then consider her progress in a single decade (even halving the result if you like to discount the claims of Communist propaganda). The resultant prospect is frightening. Some optimists hope that the Chinese people will not work to such an end, but in hoping so they are forgetting:—

- (a) That the people of China have nothing to lose.

- (b) That their present government, for all its ruthlessness, is the best that they have ever had.
- (c) That the population increase will not permit China to remain within her boundaries. (To this end, may it be noted China's previously much vaunted birth control plans have mysteriously been played down.)
- (d) That the young people of China will be thoroughly indoctrinated.
- (e) The extraordinary dynamic quality of the Chinese race, its ability to resist absorption when in minority, and its ability to absorb others when in the majority.

A further grim prospect is that once she has even the most modest means of nuclear aggression China will be in a position to blackmail the world into submission. Mao himself has been quoted as saying that on the conclusion of World War III there will be 5 million Englishmen, 30 million Americans, 50 million Russians, but 300 million Chinese. Not only could a Red Chinese leader be the only one who would make such a public statement, but also only a Red Chinese leader could and would be the only one to cause such a happening, if by doing so, he furthered China's political aims. If this disregard for individual human life was not enough of an advantage, China has a second trump-card. Assuming that her leaders are of even moderate intellect it is certain that China's future industrialisation will be well dispersed for

nuclear war instead of being jammed into the older areas of industry, such as in Europe, America and to a lesser degree, Russia.

What is Australia's position in all this? Here we cannot "go it alone" and there is not the slightest chance of our even participating other than as an American missile base. But there is a case for us being prepared to defend ourselves against the might of China. And that is against Chinese aggression which falls short of a World War III.

Let us assume the worst, and the worst is quite possible, only the time it will take to arrive being variable. This assumes that all Asia, including Indonesia is lost to Communism leaving Australia, geographically, alone. To eliminate our country would be of great value to China, firstly by removing the chances of an American missile build-up in the area and secondly to use the country as a granary for the urbanised population of the Chinese homeland. One cannot imagine America not intervening and in fact not doing so long before things have reached this stage.

However, even though we may be 90% sure of America, it is better to be sure than sorry. China's eventual position in the cold war and its ability to blackmail her opponents may extend the "breaking-point" of American diplomacy to extreme limits. After all, the loss of Australia wouldn't lose the cold war, and there could even be justification for letting the starving millions of Asia use the unpopulated

north of the continent. It is not unreasonable to visualise Western diplomats exerting pressure upon us in 1980 to allow Asian settlement in our North if by doing so nuclear war could be averted. After all, who knows what sort of men will be leading the West, considering the haphazard results of democratic election?

Fantastic as the above may seem to you it is indeed possible. Even if it is 10% possible it is a 10% chance we can't afford to take. But what could our 10 million do about it alone, against China's 700 million? Presuming that the clash would not occasion outside intervention if confined to "conventional" weapons there are two alternatives.

- (a) Adoption by us of nuclear arms. This can be ruled out even if we could pay for them. For all our wide open spaces we are worse placed for nuclear defence than crowded England. Four hydrogen bombs on Sydney, Newcastle, Melbourne and Wollongong and we are finished.
- (b) By making ourselves so strong, that with her need to maintain a majority of forces elsewhere (in readiness against the United States and Russia), China might find that the conquest of Australia is not worth the trouble involved and/or the risks of extending the war further afield.

But could we make our land a "hornets' nest" that could hope to deter Chinese aggression? Well, Finland is a good example.

To quote other nations is usually not relevant — they are not Australia. However, admitting Finland's advantages over Australia — her small size and more difficult terrain — we find that the odds that face us are no greater than those that faced that tiny country.

Here, a nation of four million people with all its industries vulnerable to nearby Russian bases, has three times in this century maintained her independence by standing against the Soviet giant. In 1918 she won her independence single-handed. In 1940, again alone, she fought the Red Army to a standstill and was able to negotiate peace on terms far less rigorous than those dictated by Stalin at the start of the war. In 1941 she ejected the Russians from their newly-won gains, held the Red Army at bay for three years, and on the commencement of Germany's collapse was able to cease fighting without the unconditional surrender forced upon the other Axis powers. Today, although in a precarious position, she alone of Russia's European neighbours remains free. Although on all three occasions the U.S.S.R. possessed the overall strength to destroy Finland, her need to keep the bulk of her strength on other frontiers made complete conquest not worth the cost involved.

For us the problem is greater.

We have enormous areas to defend and a population vulnerably concentrated in a small coastal corner of the country. But to get at us our enemy must cross the sea, and the task of main-

taining an invasion force capable of conquering Australia would indeed be a great one, and one which, combined with China's need to maintain forces watching America and Russia, might make our conquest not worthwhile. There is no question of us winning such a war — we won't. Our aim must be to make Australia so strong that China will not start it.

The Solution

What then is the solution?

Although it needs to increase very much more, there is already the healthy sign of unprecedented peace-time public interest in defence. The problem at present is that attention is channelled in all manner of conflicting directions — either "off-beam" with reality or influenced by sectional interests. Some political groups argue about a nuclear-free Southern Hemisphere Zone, which is probably quite agreeable to Khrushchev, who might not deem it worth an atom bomb anyway. Others talk about our great and powerful friends (who are powerful when, quite rightly, it suits their interest to be so). We have ex-service groups who talk about vast increases in Service manpower strength with absolutely no idea of the increased costs of modern warfare. We have regular officers who think in terms of Defence Service increases, but not of the supporting industrial capacity increases that would have to come with them. We have Citizen Force Officers who think in terms of entire divisions raised on a part-time basis — as if a computer expert or a cipher coder

could be trained in a 14-day camp. We have social workers who fondly look upon the re-introduction of the former National Service scheme as a means of improving the calibre of the nation's youth — this is no doubt a worthy cause, but surely one for the Department of Social Services rather than for the Army. We even have economists who would spend the Defence Vote in "opening up our empty North" — presumably to facilitate the speedy movement of the enemy who would advance unopposed by the forces that don't exist because the vote was spent on "Opening up our Empty North".

However, at least we are starting to stir and whatever the future, a substantial increase in our Armed Forces seems inevitable. A possible target, related to the three main threats to Australia, could be as follows:—

- (a) *For the Defence of the SEATO area* — Increased Allied aid will certainly be needed for the stabilisation of the area and it is not unlikely that the United States will at some future date press its partners for more than their present token contributions. It is becoming increasingly apparent that to maintain a force of worthwhile size in a South East Asian conflict will require this country to raise a complete regular division.
- (b) *For Defence against Indonesia* — The minimum army necessary for this will be at least one or more Regular divisions, and two or three

more which, because of the advances of modern technology will have to be at least partly Regular. This, with a corresponding increase in the other two Services, is going to cost Australia at the very least £500,000,000 yearly, not counting the initial capital outlay involved.

- (c) *For Defence against China herself* — Nothing short of perpetual partial mobilisation and the machinery for complete war-time mobilisation down to the last man, woman and child is the price we would have to pay to ward off this threat.

Could this be done? Economists cry no. But look at our living standards. Is a second car in the family necessary? Maybe not, but within a decade you're going to see it. Is colour TV necessary? Maybe not, but we will see it too. Do we all need a holiday home, used for a fraction of the year but still needing its share of the nation's resources to construct and maintain? If the standard of living remained at its present level, and the future per capita increase in national wealth is diverted to defence, then the targets to be aimed at for preparedness against the first two threats might easily be met by this nation.

And these preparations do not involve the mere augmentation of the Armed forces. Adequate preparation for the maintenance of these forces must also exist. It is conceded that in the case of equipments of astronomical cost,

of which we need only a few, local manufacture would be prohibitive. But the present situation, where we don't even manufacture our basic section machine-gun would be ludicrous if it were not tragic. Unless a weapon is hopelessly outclassed, it is going to be safer for us to use the second best item made locally in preference to the very best made elsewhere. Otherwise our suppliers might decide not to supply, or cease production, leaving us stranded for spare parts. And let's not throw away our old machinery for making Brens and Vickers — a future Home Guard may be grateful for them one day. Boer war vintage though it may be, a .303 bullet will still kill a Communist.

Conclusion

But even if your views do coincide with all this — you always have the stock Army reply "What can I do about it — one can't beat The System alone". The Grand Old Excuse, probably used by Caesar's centurions — the "let-out", the perfect answer for the fellow who wants to preserve the status quo rather than try to alter it.

But you can do something about it, by:—

- (a) Regarding the Australian Army not as a peacetime force, but one that is preparing to fight for our Nation's survival.
- (b) By realising that the price at stake is not just our career prospects or our personal comfort, but the whole future of our own families and children.

(c) By convincing your fellow citizens that it is high time Australians left their "fool's paradise" and faced reality.

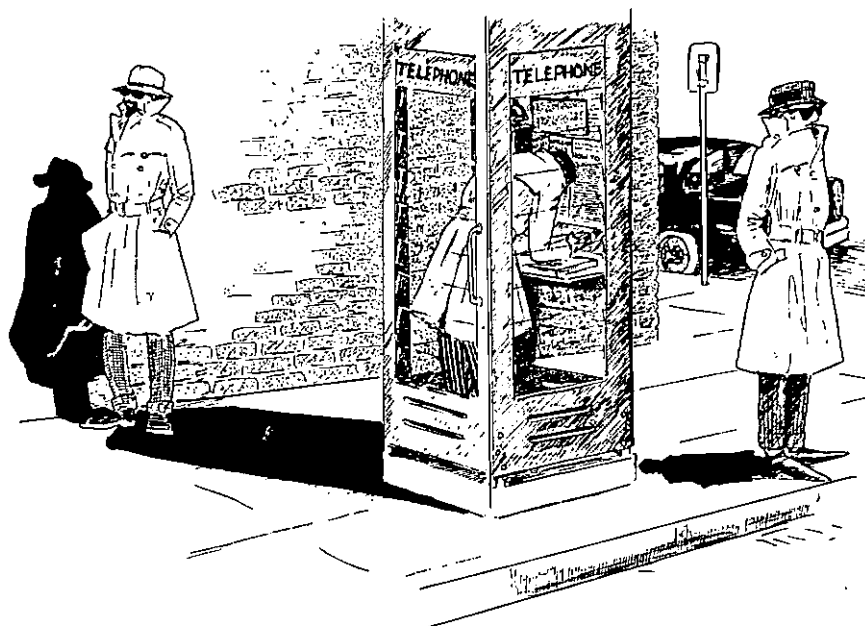
We suffer from the inefficiency of Democracy — we move ten years too late. Firstly the people must be convinced that a threat exists, because even the most wide-awake Government is useless to Australia's Defence if it is going to be thrown out in the next election. Then, before the public can be convinced, the Government itself must be convinced. And if the Army itself is not convinced, then we have no chance of convincing the Government.

What we need are officers who treat soldiering as a profession

and not as "just a job". What we need are real soldiers — not uniformed public servants or technicians in khaki. What we need is a return to the "cult of the warrior" or whatever you like to call it, within the Army, a return to the old-fashioned but very necessary military virtues of discipline, loyalty and esprit de corps. What we need are not officers of the Regular Army, or officers of the Citizen Army, but officers of the Australian Army.

I do not want my children to become citizens of some Asian power.

Do you want yours? If not, the choice is up to you.



Strategic Review

THE SINO-SOVIET QUARREL

THE two conferences held in Moscow in July 1963 both reflect a fundamental difference in outlook between the leading Communist Powers, Russia and China. One conference was directed towards putting a stop to the race for the absolute nuclear weapon between the USA and the USSR. This one was successful. The other one was directed towards reconciling the differences in the policies being pursued by Moscow and Peking. This one appears to have failed.

The nuclear test ban treaty initialled by the representatives of Great Britain, the United States and Russia is substantially the same treaty proposed by the United States and rejected by Russia in 1959 and 1962. Why has Russia now revised her earlier decisions? Simply because the Soviet rulers have finally decided that the risks of full-scale nuclear war are too dangerous for Russia. They are not prepared to risk the complete destruction of all that has been gained in the USSR since the revolution of 1917. They have come a long way, they are not going to stake it all in a gamble from which neither side could conceivably emerge with any profit. The only alternative is to recognise that there is a point beyond which Communism's unending struggle with the Free World cannot be pressed without destroying the Communist heartland.

The nuclear test ban treaty expresses the public recognition of this fact. It also expresses the fundamental difference between Moscow and Peking. The Chinese are not afraid of nuclear war because, as Mao Tse-tung has said 'When it is all over there will still be 300,000,000 Chinese Communists left'. Alone among the nations of the world, China can afford the loss of manpower while, in comparison with Russia, she has little else to lose. China can afford to push pure Marxist theory to the point of full-scale nuclear war, Russia cannot.

Moscow and Peking have never got on very well with each other; the history of their differences and rivalries goes back a long way before Karl Marx was heard of. Of later years, in the days when the Chinese Communist Party was struggling for its very existence, Moscow was the acknowledged fountain-head of Communist theory and practice. In making his revolution, Mao Tse-tung allotted the primary role to the peasantry, in contrast to Leninist-Stalinist theory which insisted that to be successful revolution had to be based on the urban proletariat. The more Mao looked like succeeding, the more Moscow disliked him. Moscow in fact did many things to denigrate Mao and tried unsuccessfully to oust him from the leadership of the Chinese Communist Party. For these reasons alone Mao has no love for Khrushchev.

But there is much more in the quarrel than personal feelings. Fundamentally it is a difference of opinion about basic Communist doctrine. Peking's interpretation of dogma holds that there can be no deviation, however temporary, from the Marxist-Leninist gospel, that there can be no compromise, no suggestion of co-existence with the Free World, that the revolution must be pushed by all means until Communism rules over the whole world. Moscow maintains that neither Lenin nor Stalin would have thrown away all the substantial gains by pushing the revolutionary movement to the point of self destruction, that in the nuclear age the dream of the founding fathers can be realised only through manoeuvre and finesse.

The difference of opinion resolves itself into a struggle for the leadership of the Communist world. Moscow and Peking both claim to be the repository of the ark of the true faith. Both seek to win the adherence of Communist Parties throughout the world, many of which have been disrupted by the internal struggle.

The Moscow conference did not openly acknowledge failure to resolve the differences. But it certainly did not heal the breach. The Chinese delegates seem to have gone home in disgust, while Russia made her compromise with the West.

What will happen now? Probably both parties to the disagreement will pursue their revolutionary aims by different means. Russia, having freed herself of the necessity of maintain-

ing the ruinous nuclear arms race, will, with her European satellites, continue to press her policies by all means short of the risk of a nuclear exchange. By these means she will hope to show that despite the nuclear test ban treaty she is still the fountain-head of Communism, still able to lead the revolutionary movement forward to success. At the same time she will endeavour to lessen China's chances of doing the same thing by curtailing economic aid and withholding moral and material support for military adventures.

China is unlikely to be deterred by anything that Khrushchev can do to obstruct her. Mao is not so easily turned aside as that. Indeed it is not improbable that he may attempt to demonstrate his own pre-eminent suitability for the leadership by stepping up his revolutionary war in South East Asia. At any rate there is no reason to suppose that he will slacken his efforts in this area, though the drying up of Soviet economic aid may make it more difficult for him to send material assistance to local Communist forces.

All that the nuclear test ban treaty does is to relieve both sides of the enormous expense of continuing the competition. There are already in existence enough nuclear weapons to kill nearly everyone in the world at least twice. Its immediate effects, taken in conjunction with the Moscow-Peking quarrel, may be that Khrushchev will tread a little more warily in Europe while Mao becomes more bellicose in Asia.

— E.G.K.

NOTES ON THE PRACTICAL CONDUCT OF WAR GAMES

General Leo Freiherr Geyr von Schweppenburg
German Army (Retired)

Translated by Warrant Officer W. G. Fladung, RAAEC

THE SUBJECT is dry. But a cat can be skinned in more than one way, and this applies to the science of war games as much as to other teachings.

The conduct of a war game depends decisively on the mentality and dynamic character of the director. He must master the material to be taught and, furthermore, must be proficient in the techniques as they vary from situation to situation. Mental exercise by the participants is aimed at throughout the game.

The German mentality suffers from hereditary defects which are of consequence even in the military sphere: a tendency to emphasise method and an almost conservative perfectionism. Atomic weapons, increasing mechanisation and speed of movement on land and in the air demand quick, on-the-spot decisions in tactical, strategic and logistic situations — decisions which this mentality, least of all the Prussian, is not prepared to make with speed.

“War Games”, in different forms and teaching situations are means by which *skills of leadership* are fostered. Attainment and development of these depend on the presence of several characteristics. The most important quality of the military leader is inherited. It can not be otherwise obtained nor can it be positively measured. It can be tested only in emergencies. It is the *unbending will*, the *force of personality*, the Horatian “*aequam servare mentem rebus in ardius*”. Sober appraisal — daring with responsible recognition of the permissible limits of calculated risk — the issue of concise orders — all that can be taught and learned. It can be drilled. In fact, it is the only drill still justified in military training. However, the steel in the character cannot be learned, it is a biological product. This demand is one of morale and cannot be satisfied by training. Those with battlefield experience who look back upon the personalities of leaders and their advisors in two world wars will be inclined to agree.

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The skill of leadership in the junior officer should be awakened early and on a level suitable to rank and posting. This should begin with small tactical tasks, during war games in the field, and involving an independently thinking and acting enemy.

With the plan game, the role of the enemy is played by the director. War games in the field are more effective. The organisational requirements for the latter are simple. Required on "the other side" is an assistant director, tactically capable and well-briefed. He is in radio contact with the director. The set could be carried on a cycle/sidecar unit. The distance between the two parties can be short. It is sound training policy to "throw the fish immediately into the water", in other words, to permit mistakes to be made. The teacher of tactics must be able to suffer, without upset, mistakes to be made. It is much better to begin with small tactical tasks in the field and to revise, discuss and reinforce them later in the lecture theatre with plan and sand tray, than vice versa. This suggestion is made, not on a theoretical basis, but on practical, successful experience over the years.

In dealing with young people, it is easier to look beyond the exterior, to feel the strength and weakness of character, easier than it is with the older, who are smarter and more careful. Working with younger students, this arrangement would be wise:

(a) The adjutant who proposes courses of action based on appreciation;

- (b) The leader who makes command decisions;
- (c) The fellow student who criticises both.

This is a matter of personality and tact. The director who occasionally takes over the adjutant's role, one time making a positive proposal, another time a negative one, can test, in more respects than one, both the leader and the critic.

For the purpose of leadership training, the British employed teamwork and symposium methods in their officers' training schools, up to and including Staff College. From the universities, the tutor system, a commendable scheme, was taken over and applied jointly with the other methods mentioned. But this system served first of all the development of science orientated thought, rather than the training of leaders. The German oral examination, if well conducted, seems to serve the purpose more suitably.

Two forms of decision-and-command training have not as yet been mentioned in these notes:

- (a) Instruction in command decisions and commands by wireless as they are given, without the assistance of a staff aide, from the mobile command vehicle; the formation of same and drafting into concise signals. The principles to be applied are those of "being quicker than the man on the other side" and the "achievement of the highest self-reliance under pressure of extreme urgency".

(b) Large operation games, similar to those conducted by the (former) German General Staff as "Truppenamtsreisen".¹ In this case, the political and economic situation and the existing communications must be included and considered in detail in the "war situation".

Stores Required, Including Those for Larger Plan Games Indoors

1. Desks for superiors, guests, spectators and officers detailed.
2. Ample desk space for participants to write notes, orders etc. Soundproof spare rooms.
3. Good lighting.
4. Visible clock.
5. Stopwatch for the director's assistant.

For smaller games, and for transfer of tactical details to a smaller model, scale rods, direction indicators, labels with scales of plans and sandbox, and cotton wool for simulation of fire effects.

6. During war games involving the movements of two parties, material to cover the enemy position is to be kept in readiness.

7. Reference books, regulations and other such aids (Staff Duties in the Field) will not be brought to the exercise. They act as an impediment to independent, tactical thought.

8. Strict separation of parties, before and during the game, must be maintained. Also, care is to be taken that guests do not pass information to parties. This can be prevented by several precautions, i.e., situation reports on both parties are issued to

superiors and guests in stages only; immediately before commencement and during the game.

Recommendations for the Direction

It should be quite clear in the director's mind whether his aim is training in giving of commands or in making decisions, or both, and whether or not time limits will apply.

The war situation is to be kept in simple terms. A war situation, without a well thought out, general report on air situation and atomic warfare implications, should not be given.

When preparing for a plan game in which the director assumes the role of the enemy, or a war game for which an independently thinking and acting enemy is detailed, it is recommended that solutions likely to be given be discussed with a tactically and operationally competent co-worker.

There is always the danger of attempting too much.

It is recommended that engagements be played on a broad scale and valuable aspects be selected for more detailed work in the exercise.

The director should talk as little as possible during the game; questions he raises should be concise and answers should be accepted non-committedly.

Further Pointers

Roles are to be assigned beforehand, but in general not to be disclosed before the situa-

1. Truppenamtsreisen: Tactical Exercise without troops, the General Staff conducting the exercise at the given area. (Similar to G.O.C.'s Annual Exercise.)

tion briefing. This does not apply to games of large scope.

Discussions between Commander, aides and liaison personnel (Air officer, Nuclear Advisor), are to be in person. The same applies to issue of commands.

All participants are to be employed, even if only in tactical details; they must be prepared to take over a position in a relieving capacity at any time. This will increase attention considerably.

In training N.C.O.s to make independent decisions, it is useful to give ambiguous or obsolete orders occasionally, and at the same time deprive the recipient of the opportunity to refer back to the source.

Role of the Director's Assistant

The assistant must relieve the director of calculations, e.g., movement times of troops. He must operate the stopwatch if time elements are part of command decisions. He must hold in

readiness planned extensions and remind the director of them. He must be aware of all that takes place and must know the position of troops at any given time.

Final Review

The opinions of spectators capable of expert comment, may be invited. The participants in responsible positions can be heard, for instance in justification of the one or other decision, comments on whether or not they would, with hindsight, still make the same decision.

The director should in his final comments, consider solutions liberally and he must never be sarcastic or tactless. The purpose is development. He must, however, state quite clearly what he considers to have been wrong, possibly right, and correct. Before final comment an adjournment should take place to allow discussion with specialists (Air, Artillery, Nuclear Warfare). A moderate self appraisal by the director is indicated.



BARON VON GEYR

RADIO RELAY DURING EXERCISE NUTCRACKER

Major G. J. Lawrence
Royal Australian Corps of Signals

EXERCISE Nutcracker provided the first opportunity for radio relay to be employed by the Australian Army in a major exercise. Technical aspects of its employment have been reported elsewhere. This article describes the radio relay system installed for Exercise Nutcracker and discusses the limitations of current equipment and the future for radio relay at divisional level and below.

Equipment

The radio relay equipment used was the WS B70. This consists of three transit cases and a bag, each of which can be carried with difficulty for a short distance by one man. The equipment operates in the super high frequency band and line of sight between stations is essential. When working beyond a few miles even light foliage must be cleared from the front of the equipment. Its low powered transmitter, simple receiver and small aeriels limit its range. Up to about 35 miles between

stations would appear to be a maximum; longer paths require extensive preparation and may be unreliable. Repeater stations can be used to extend the length of the circuit; the maximum number of repeaters is three for high grade circuits.

In addition to the two or three B70s which each detachment holds, ancillaries are necessary to permit several simultaneous speech circuits over the one B70 path and to permit a telegraph circuit simultaneous with each speech circuit. AC generators are also required. Each detachment is equipped with the very high frequency WSC42 transceiver for Troop communications during reconnaissance and deployment and for initial setting up of the B70s. Thereafter one of the five radio relay speech circuits is used for Troop communications except when B70 failure cannot immediately be overcome. All equipment, men and stores of one detachment are carried in a $\frac{3}{4}$ ton truck and $\frac{1}{2}$ ton trailer.

Two aspects of these C42 sets should be noted:—

1. The C42s were used over a much greater range than that which is normally expected. When detachments are moving into location, line of sight is anticipated (or they would not be moving there) so good VHF communications are not surprising.
2. Should radio relay fail completely (due, for example, to an irreparable B70 fault and no further spares), there is a single speech circuit still available although manual relay may be involved.

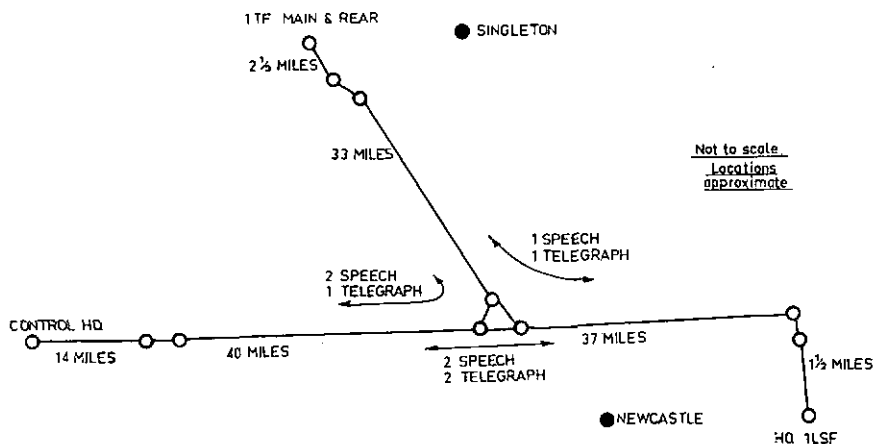
The System

The system installed for Exercise Nutcracker consisted basically of an artery from Control Headquarters at Mt. Kindarin to HQ 1 Logistic Support Force at Gan Gan with spurs to 1 Task Force MAIN and REAR. Figure 1 shows the arrangement for Phase 1 of the exercise (Phase 2 was

similar) and Figure 2 shows the arrangement for the last part of the exercise, Phase 3.

Five detachments of Radio Relay Troop 1st Divisional Signal Regiment and three detachments of Radio Relay Troop 3rd Lines of Communications Signal Regiment installed and operated the system. Detachments had either three or four men and in most cases at least one man was a line mechanic. Only about half of all ranks were tradesmen — line mechanics, radio mechanics or driver electricians.

At each of the four headquarters (Control, LSF, TF, MAIN, TF REAR) the speech circuits were connected to the area telephone switchboards so that an extension in one area could talk to any extension in any other area over the radio relay circuits. The telegraph circuits were connected to teleprinters at Signal centres for the transmission of formal messages.



RADIO RELAY - EXERCISE NUTCRACKER - PHASE 1.

FIGURE 1

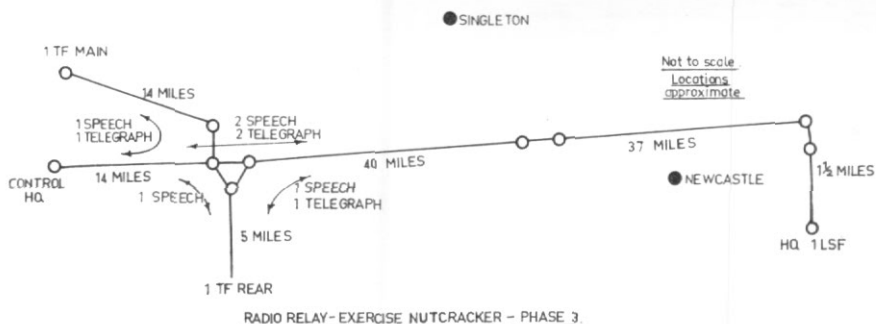


FIGURE 2

The system was installed to provide control and umpire communications, but since it was available to anyone who had access to a telephone (or could hand a message into a Signal centre), it was anticipated that the staffs being exercised would also use it. In this way it was hoped that staff officers would gain experience in the use of radio relay and realise its advantages.

Since radio relay was exercise neutral, there was no limit to reconnaissance, nor was defence of stations a consideration. Also, since the circuits were required for exercise control communications, it was important that they be tested prior to the start of the exercise. Preliminary radio relay exercises were held. At the end of the first two, totalling seven days, a satisfactory path for the main artery still had not been found; it was during the third exercise that a slight dip in a mountain range proved sufficient to permit a radio relay path.

Helicopters of 16 Light Aircraft Squadron were used extensively during these exercises and Exercise Nutcracker itself for

route reconnaissance, movement of detachments in and out of locations, for resupply and liaison. Without helicopters, manpower requirements to position some stations and to keep them resupplied would have been prohibitive.

Performance

The system operated for four weeks continuously. After the first two days, it was always available for more than 98 per cent. of the day. It ran for a maximum of four days without any failure at all. Technical faults which could be tolerated by users were not corrected until after midnight when there was little activity. Overall availability for the duration of the exercise was officially recorded as 99.9 per cent.

During Phase 2 of the exercise, HQ Task Force MAIN occupied a location which did not permit radio relay to be used without deploying another detachment, and this was not available. The fact that staff officers complained about this absence of radio relay was encouraging as it indicated that they found it a useful facility.



A WS B70 repeater station (Telegraph Hill).

During Phase 3 the circuits to HQ 1 Logistic Support Force failed for several hours (the longest single break). This resulted basically from limited repair facilities and resupply difficulties at an isolated detachment.

At one stage the system was connected at HQ 1 Logistic Support Force to the PMG system and it was used by the Governor General for calls from Control HQ to Canberra.

Limitations

The primary limitation to the radio relay equipment now in use is the B70 requirement for line of sight between stations. Tree mounts are on issue and these permit elevation of the B70 but line of sight through the foliage is still required. In heavily timbered country or jungle this line of sight is difficult to obtain. In

open hilly country line of sight between headquarters located on low ground may not exist.

The deployment of intermediate repeater stations will often overcome line of sight difficulties but protection and resupply of isolated detachments becomes a major problem. A detachment may have only three men and, if isolated, they could not protect themselves or their equipment against the smallest raid. If isolated, resupply arrangements could well disclose their location. If a commander requires the communications and isolated detachments are necessary in forward areas or areas of guerilla activity then protective arrangements should be provided. If they are not, stealthy occupation of the location may give some security, but with a generator running this security cannot be great.

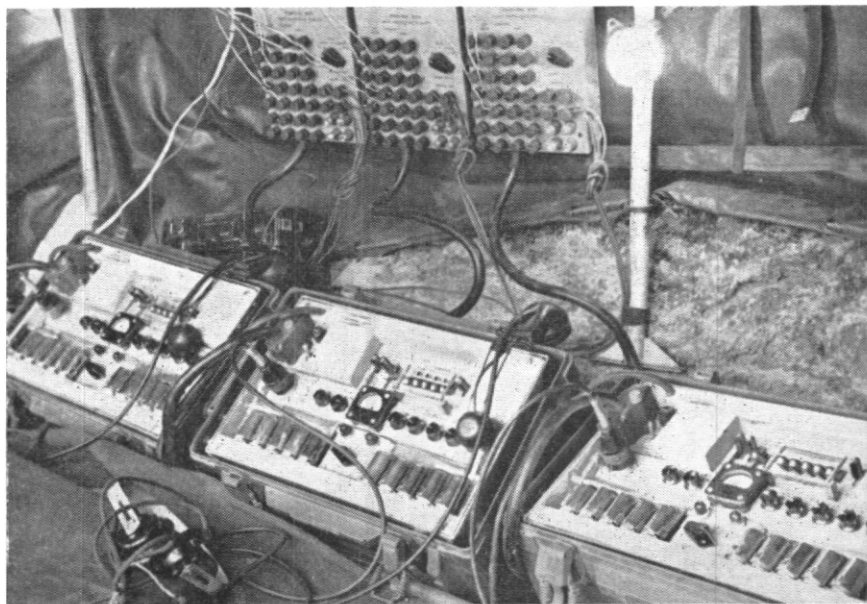
A second limitation is that radio relay is subject to all radio electronic counter measures. This is different from other radio equipment in that several speech and telegraph circuits may be affected simultaneously.

Speech over a radio relay circuit originates at the same field telephones as the staff use for communication within a headquarters where generally the telephone circuits are reasonably secure. Such security does not exist over a radio relay circuit and despite warnings by the switchboard operators, breaches of security were common during Exercise Nutcracker.

Future Employment of B70 Equipment

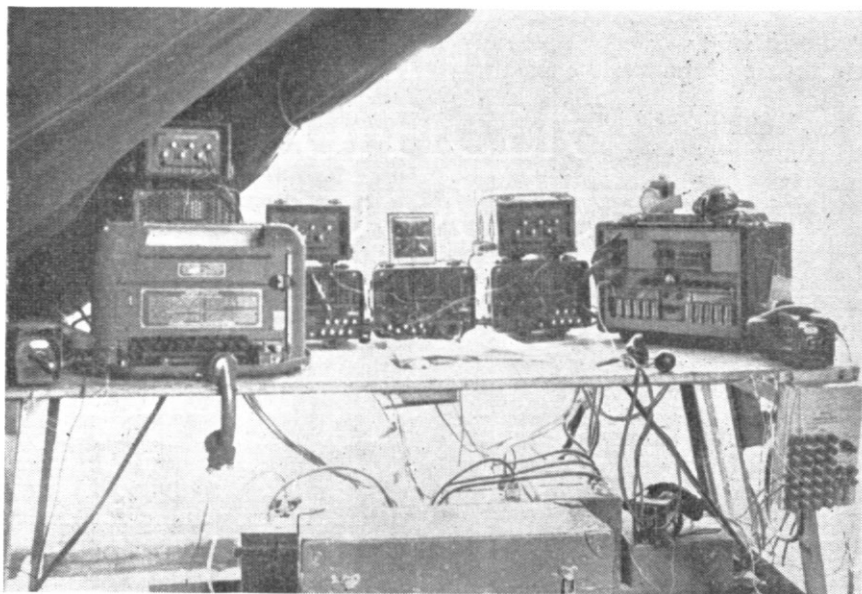
It would appear that situations in South East Asia which permit the employment of B70 radio relay forward of Task Force will be rare. Once a division is deployed in South East Asia, B70 paths forward of Main Division HQ may not arise often. However, should paths exist advantage of them should be taken to provide far better communications facilities for the staff and to relieve a considerable number of wireless crews.

Within a rear divisional area, rather than use one switchboard



**MULTI-CHANNEL SPEECH EQUIPMENT
AT THE GREAT SUGARLOAF REPEATER STATION.**

During phases 1 and 2 of Exercise Nutcracker, it was at this point that the channels were cross connected between various radio-relay paths (see Figure 1) using the terminal boxes, centre top. The earphones, bottom left, were used by the operator to monitor the channels to ensure that quality was acceptable.



THE CONTROL HEADQUARTERS TERMINAL STATION.

The multi channel speech equipment is on the right of the table. Along the back of the table is the equipment for inserting the telegraph circuits over the telephone channels. The telephone (extreme left) and teleprinter were for fault-finding only. The handset in front of the teleprinter operated the WSC42 remotely in case of WSB70 failure. The handset on the right front of the table provided an engineering channel over the radio relay path. The telephone on the extreme right was an extension on the area switchboard.

with all extensions connected to it, two boards interconnected by B70 radio relay could be used. This could result in economy in cable and earlier provision of telephone facilities.

The B70 has applications between Port and Logistic Support Force areas. Even if isolated repeater stations were required, lack of protection may be an acceptable risk. Such a system was provided by 3rd Lines of Communication Signal Regiment during Exercise Springtide. The use of the B70 outside the division appears to be more likely than its use within the division.

New Equipment

A new equipment will be on issue shortly within the division. This equipment operates in the VHF and UHF bands and is much more powerful than the B70. It will not require line of sight a greater range than the B70. between stations and it will have The basic equipment and its ancillaries are contained in a shelter which is fitted on a 2½ ton truck. The aerials are rather large and may be difficult to conceal.

Applications of this equipment may well be limited in the

division by its physical size. However, its use from Main Division HQ to Task Force, between Task Force Main and Task Force Rear, and from Task Force to Logistic Support Force are possibilities. This equipment obviously has high potential in rear of Divisional Headquarters.

Experience has indicated that an equipment similar to the WS C42 but capable of several simultaneous speech circuits could be very useful within the division. Unfortunately, it would appear that no country has produced such an equipment.

Conclusion

Radio relay during Exercise Nutcracker proved that comprehensive facilities can be provided for long periods. The system received extensive use and was considered by staffs to be a

valuable service. It provided relief for several wireless crews.

Exercise Nutcracker and preliminary radio relay exercises indicated that the use of current equipment in South East Asia forward of Divisional Headquarters may be limited and its use forward of Task Force Headquarters will be rare. Provided reasonable roads exist and the difficulty of concealment is recognised, a new equipment may have some use within the division.

The ability of radio relay to provide high grade multi-channel speech and telegraph circuits is a most desirable attribute, and its employment can save manpower and time as well as providing vastly superior communications. Efforts should continue to be made to install radio relay where possible.

PROFESSIONAL AND OFFICER EDUCATION

Lieutenant P. A. Webb
Australian Army Psychology Corps

THE AIM of the Army is to be an efficient fighting machine, a part of which are officers of high calibre. The better educated person is more efficient and able to make better decisions. This is so because his information is better. At present this is not common knowledge.

At present the Army is not attracting officer applicants of quality equal to those entering other professions. The reason is that the military profession is not equal with other professions. It is lagging behind in the educational boom.

If the status and education of military officers were equal to those of other professional people, one should be able to compare and draw parallels

between the two professional groups.

Table A compares military and other professions.

Both systems assume Matriculation standard. Many newly appointed officers lack this basic qualification, even in peace time. The rank of second lieutenant only partially controls this.

A Pass Degree can be subdivided into —

- (a) The "major" subject (one)
- (b) The "sub-major" subjects (several).

For example, one might take a pass degree with a major in Military Science and with sub-majors in English, Mathematics and a foreign language. Further specialisation within the major

Military and University Qualifications and Rank

Army Rank	University Status	Military Qualification	University Qualification
Captain	Graduate	Military College	Pass Degree
Major	Post Graduate	Promotion Exams	Honours Degree
Colonel	Graduate	PSC and exams	plus internship
Major-General	School	Higher Staff	Diploma or
General		College	Master's Degree
Lieutenant-General		Selection only	Doctorate of Philosophy
			Doctorate of Science

TABLE A

takes place, e.g., tactics or staff duties. However, the Military Science degree takes into account —

- (c) Physical, personal and social development, which the university does not.

An Honours Degree is taken by those showing special aptitude or ability in their Pass Degree. Only the major subject is studied. These are submitted and examinations taken.

In general Diplomas are professional qualifications while the Master's Degree qualifies for a lectureship.

The *Doctorate of Philosophy* is awarded for original and substantial research. The *Doctorate of Science* is awarded for original and considerable contribution to knowledge and is rare.

The special problem in the Army is the award of rank for seniority. A *Doctorate of Philosophy* can be won in six or seven years but a Major-Generalship cannot. The problem is discussed later in this article.

Military Teaching

There are differences between military and university teaching with the former far in advance of the latter with regard to quality of instruction. There are two reasons:

- (a) Different aims, and
- (b) Finance available.

However, the methods are much the same, only syndicates are called "tutorials" and some types of conference are called "seminars". The Army teaches more by action and participation.

Memorisation of basic points is stressed and detail is omitted.

If the three grades of university pass are called A, B and C then the sources required for the level of pass are:

C — lectures only.

B — lectures plus text books.

A — lectures plus tests plus reference books.

In military examinations high passes can be obtained without reading the two or three reference books required by university examinations.

In general military teaching is more rigid, with lectures more like programmed lessons and greater attention is paid to regulations in their own right. For example law is taught without jurisprudence and bookkeeping without accounting.

Possible Improvements

There are some avenues available to raise officer education and status especially at the junior officer level. First, officers should not be used for minor tasks, e.g., clerical and maintenance tasks. Trained N.C.O.s and W.O.s are equally capable of doing a good job.

At present no degree is awarded on graduation from the Military College. This should be remedied as soon as possible so the Army will be on equal footing with other professions and with the Air Force Academy which offers a degree.

Junior officers should be encouraged to study university subjects in order to complete a degree. This could be done with

university day or part time attendance. Passing of appropriate subjects would then result in the award of a Bachelor of Military Science as is granted in United States universities. Promotion to captain would be retarded until a degree is obtained.

Were such a degree awarded, university undergraduates also would be more likely to consider a subject major in military science.

Active discussion of new issues is seldom heard among junior officers, e.g. war games or decision theory. This is largely a result of the examination system. Junior officers should additionally be examined by thesis to provide continual detailed information for command and staff on various aspects of the Army. If security restrictions permitted, the thesis could be circulated or published.

The thesis would take the form of a staff report to a commanding officer and would not constitute criticism. The present system of Current Affairs examination is partly along the lines suggested.

The Army's automatic promotional system is antiquated and has been abandoned by the Navy and Air Force. Automatic

promotion has two disadvantages:

- (a) Little control of officer flow;
- (b) Inefficient people are promoted.

Promotion by harder examinations would overcome these two disadvantages. The two best criteria for promotion are:

- (a) Merit;
- (b) Education and/or intelligence.

Psychological scaling procedures are now available to measure merit objectively.

Conclusion

Comparison of university professional and of officer education has been made and the following topics considered:

- (a) The status of officer education.
- (b) The nature of military teaching.
- (c) A degree in Military Science.
- (d) Theses and the examination system.
- (e) The promotional system.

In general, officer education must move closer to the university system if it is to hold its own with other professions in peace and to produce efficient officers in war.

HAVE GUN — WILL FREE FALL

Captain J. F. McMahon
Royal Australian Infantry

“Man has sought to surprise his enemy since the earliest human ambushed his animal prey by dropping rocks from the protective cover of trees”.

“The Airborne Story” by L. S. Waddell.

IN STUDYING the problems of cold and limited war against the background of a major guerilla threat in South East Asia, we must consider more than conventional tactics coupled with established doctrine for internal security. Particularly in these “twilight zone” wars the small irregular or unconventional master-stroke executed with speed and precision will often be worth far more to our cause than the slow deployment of conventional forces. We, in the manner of the enemy guerilla, must have a long, yet invisible arm. This arm must be capable of reconnoitring or striking with stunning speed and accuracy deep into the enemy’s “impregnable” jungle heartland. Again, the sudden and mysterious introduction of a specialised detachment into an inaccessible and uncommitted tribal area could prevent immediate Communist infiltration and ultimately lead to the establishment of a firm base for guerilla or conventional operations.

What system or weapon can provide this tremendous flexibility? The “weapon” in prototype already exists in Australia waiting to be formed into the Tactical Free Fall Team.

Several fine articles have appeared in this Journal dealing with free falling and the broad principles of its military application: “Military Free Fall Parachuting” by Major E. M. McCormick, January, 1962, and in this issue “Paradelay Combat Teams” by 1/Lt. Charles L. Mullins, XO, U.S. Army Parachute Team.

In both the above articles numerous examples are given of successful missions carried out by teams of a few men using the tactical free fall concept by night. With the inherent problems of difficult terrain and inability to merge freely with the local population, this method of infiltration when applied to our deep penetration patrols in a tropical theatre cannot be ignored.

History is littered with examples of successful operations in which a few men, using stealth, have proved effective where the brute use of a mass would have failed. From the capture of Troy, to the rescue of Mussolini from Gran Sasso, to the Russian or the Viet Cong partisan activities, and the deployment of MAAG detachments amongst the Mao hill tribes or our own Coast Watchers in the South West Pacific Theatre, there has always been a place for the small group using irregular methods. Regular soldiers must be prepared to use the unconventional for the national good. The tactical free fall team adds a highly versatile, yet inexpensive weapon to our national arsenal. The days of justifying parachute training, and free fall in particular, by "keeping alive the art" are over.

The military mind must grasp the unlimited opportunities offered by this highly legitimate, yet unappreciated form of warfare.

Nuts and Bolts

It is the aim of this article to show the practicability of Tactical Free Fall Teams and how, after thirty days' training, an operation of this nature could be mounted using personnel and equipment now available in Australia.

However, the detailed techniques involved will not be described. It is not the aim of this article to stimulate service sky diving club members into having an experimental "bash". This bash could be their last. This is a duty for selected troops, ser-

vice trained, equipped and disciplined for a definite role which is far removed from fun jumping club sky divers.

Advantages — Comparative Immunity to Detection Devices

Overall advantages of military free falling have been dealt with at length in the articles referred to previously. However, the thinking serviceman, whether enthusiastic or not with free fall infiltration, must carefully consider the question of detection devices. It would become a vital factor in the preparation of any operational plan.

The main problem is radar. This can be overcome. The aircraft or helicopter acting as a jump vehicle will normally be flying high to avoid unwelcome attention from ground fire and to disguise the fact that a parachute operation is being launched. The minimum height would be 8,000 to 10,000 feet and the maximum would be the upper limits of the aircraft's capabilities. Consequently, radar surveillance would be of long range type. Radar operates on a rotating 360 degrees electronic beam. The greater the distance, the longer it takes the rotating beam to reach out and echo back to the set. In turn, the rotating "pulse" rate coverage is slower. This could allow a man to be undetected at the exact moment of exiting. Again, the definition and size of the target is reduced. Therefore, it is unlikely that a man or group exiting the jump vehicle and falling away for thousands of feet at speeds in excess of 120 m.p.h. would be detected. In the worst case they

would be represented on the radar screen as a microscopic and momentary flicker not likely to attract the attention of the most alert operator. A flicker, if noticed sixty seconds or more after an over flying aircraft or stream of bombers had passed, would not be associated with a parachute operation.

Other facts to note with regard to radar are:

1. For an important mission where there is a radar threat it would be logical to assume known enemy stations would be destroyed or neutralised by jamming and deceptive measures such as aerial attacks in adjacent areas.
2. Not every hill in South East Asia will be crowned by a radar set, and in many cases an aircraft could enter and leave enemy territory undetected.

With personnel approaching the ground after activating their parachutes, the most likely detection devices to be used against them would be visual, infra-red or acoustic.

Here the following facts are relevant:

1. A parachute descent is completely noiseless, the only sounds being made are the characteristic "crack" of the opening shock and the minor noise of the parachutist's body hitting the ground.
2. By activating the parachute above three thousand feet or lower when there is ground noise from wind or battle, the opening "crack" will not be heard and hence detection

devices will not be "attracted" towards the apparently empty sky. The sound of impact is limited to a range of a few yards only.

3. Under ideal conditions of ground observations, say bright moonlight and a view unobstructed by trees, it is difficult to see a descending group of parachutists at heights less than one thousand feet. This can be easily proved to the most exacting critic by his observing the night descent which is conducted regularly with every basic parachute course at Parachute Training Flight (PTF). It must be pointed out that the colour of the parachute is the significant factor.

Several good examples of the "undetectability of the free fall parachutist can be given. On 17 September 1959, at Los Banos Drop Zone, Fort Campbell, Kentucky, USA, a team jumped deliberately into a rifle company position by night to test a concept. They accomplished their mission and members exfiltrated undetected, except for one unfortunate individual who was captured when he landed beside a slit trench occupied by a startled night sentry.

In another instance, the author, taking part in normal daylight training, had the misfortune to land 100 yards off the drop zone in a pine wood in the midst of an artillery unit on tactical training. He was not seen by any of these troops until they were surprised by the sudden appearance of a brightly coloured parachute dangling from a tree. In this case, the troops were too

intent on their own duties to be wasting time sky-gazing. Surely this holds good for the hard working enemy soldier under wartime conditions, especially by night.

To sum up detection methods, a quotation from Brigadier General F. von Kann, US Army, is appropriate:

"It is hard to believe that even the most highly prepared enemy will be able to place the more complex air defence systems either close enough or dense enough to the forward edge of the battle area to insure 100% detection followed by 100% destruction. Cost alone tends to defeat such an aim". (Vulnerability of Army Aircraft, AAJ, October 1963.)

Assumptions on which to Base Training

To lay down operational requirements and therefore training commitments, certain assumptions must first be made. This article is based on the following assumptions:

Maximum Tactical Demands

The system must be capable of meeting any or all of the below listed demands:

1. Operation to be mounted by night without regard to phase of the moon as aid to the visibility.
2. To be employed from fixed or rotary winged aircraft, including subsonic bombers, ultimately.
3. Man for man, in the tactical team, individuals must be capable of carrying as much or more than the foot soldier:

4. To land on a predetermined and restricted dropping zone with a team dispersion on the ground of fifty yards or less.
5. A team to consist of up to five or six members. Organisation to be based on the operational requirement.
6. No outside aid in the form of friendly agents or partisans to be expected in the marking of the drop zones, etc.
7. With tree landing techniques (developed by the British SAS in Malaya) it could be operationally acceptable for the teams to be dropped into jungle where there are no clearings.

Limitations

1. Depth of penetration of enemy territory to be determined by type of aircraft and RAAF service requirement of routing and protection.
2. Where there is a lack of ground visibility (clouds or no moon) the aircraft crew to be responsible for navigation to the predetermined exit point.
3. To predetermine an exit point an accurate meteorological report is required. If necessary, say owing to significant alterations in wind, details must be wirelessed to aircraft in flight to make final adjustments to the exit point.
4. Under conditions of absolute darkness, only an "area accuracy" to say within a five hundred or a thousand square yards could be guaranteed. However, dispersion on the ground would not be affected. Here accuracy is governed by outside factors, i.e., aircraft

navigation to the meteorologically predetermined exit point. As night visibility improves so does accuracy. The aircraft can be "spotted" (directed by the team leader) to the exit point and final corrections made by canopy control before landing.

Individual Requirements

To be selected for training in an operational team a soldier must have the following requirements:

1. Currently trained in free fall to the level of sixty second delays and have attended the normal PTF free fall course including jumps with equipment by day and night.
2. To be physiologically flight tested as operations may be conducted using oxygen in flight and free fall.
3. To be of a stable temperament.
4. Above all, to be a highly skilled soldier capable of carrying out his commander's mission. Free fall parachuting is not an end in itself, but another specialised technique of silent infiltration to the combat area.

Basic Types of Night Free Fall Infiltration Techniques

There are two basic techniques with a supplementary method which can be adapted to either. They are:

1. High Altitude, Low Opening (HALO).
2. High Altitude Pull (HAP).
3. GLIDE (Supplementary to either).

The HALO technique is a system whereby the jumper exits from an aircraft at altitudes of usually 8,000 and above and opens his parachute at a pre-planned altitude, normally between 3,000 and 4,000 feet. This method of entry is probably the hardest to detect, and it provides good accuracy.

The HAP method is commonly referred to as the "jump and pull" in sky diver terminology. This technique can be used with the Team exiting the jump vehicle while inside friendly territory. Utilising existing winds at altitude and the steerable parachute, they can drift swiftly and silently as far as 10-15 miles into enemy territory. To achieve pin-point accuracy (as opposed to landing in a predetermined "area") some moonlight is required to see the ground for check points, etc.

The GLIDE system operates on the basis that each aircraft type has a constant glide factor depending at what height it cuts its engine. For example, if a U1A Otter in a no wind condition cuts its engine at 14,000 feet over a known point (say behind our own lines) it could, in an elapsed time of seven minutes and 42 seconds, cover ten miles laterally over the ground for a loss of 5,460 feet altitude. Therefore, by means of computations based on meteorological reports and the known glide factor, a completely noiseless approach could be made to the exit point for either a HALO or HAP type operation.

The above methods provide for a tight ground pattern of parachutists on landing.

Practicability of Forming Teams in Australia

In peace time, with a curtailed defence budget, can we afford the "luxury" of forming tactical free fall teams?

The answer is yes. Right now we have the equipment and are training regular batches of SAS troopers at PTF in military free falling. All that is required is that the worth of the training be recognised and acknowledged!

There is a simple method to use in forming these teams without the expenditure of one additional penny over already appropriated funds. This is to run every second free fall course as an "Advanced Team Course".

Here the techniques involved would be taught and rehearsed by day and night. In the latter stages of the course a series of exercises, run by a senior SAS officer, could be mounted in lieu of the normal jumping schedule. All safety would be supervised by the staff of PTF. By this method the men would be trained, rehearsed and exercised during a one month course. As a side benefit senior officers of SAS (user unit for this type operation), could become experienced in the problems of planning and mounting a tactical free fall mission.

As with any new system or technique involving combined operations, there are sure to be many minor "wrinkles" to be sorted out. With liaison between the RAAF, PTF, and SAS extending over several such courses, the existing techniques would be perfected to meet Australian inter-service requirements.

Service Sky Diving Clubs

From a service point of view, continuation training in peace time presents problems such as limited availability of free fall parachute assemblies, aircraft and flying hours. A free fall trained soldier to remain proficient must jump at least once a month.

Here service sky diving clubs play an important role. Without these clubs basic or advanced free fall training is largely wasted. In fact a military free fall course can basically only show the soldier "how". It is in his club jumping that he receives his final polish through continual months of practice. Unless a soldier has shown zeal and improvement by continuous club jumping after attending a free fall course, he should not be considered for the Advanced Team Course.

This training problem is recognised by the US Army where official approval and practical assistance is given to unit and formation free fall clubs. In this way, at minimum expense to the taxpayer, a large reserve pool of trained free fallers is available on call.

Training for War and an Important Side Benefit

To bring tactical free fall teams to operational readiness once they have completed training at PTF it is desirable they be exercised against a realistic and live "enemy" target. That target can be provided every time a battle group or one of its sub-units, or better still a Logistic Support Force unit, is operating

in the field. The training is valuable to both the "enemy" as well as the team.

"The normal soldier, unless under continuous airborne or guerilla threat does not expect to meet the enemy running around openly in his own rear areas". (Sociological Warfare, AAJ Nov. 1962.)

From practical experience in America it has been found that the superimposing of an unscheduled (and hence, unexpected), tactical free fall exercise on an already existing ground problem is easy to co-ordinate and control. Ground troops having been exposed to this "unconventional" method of attack are less likely to be caught a second time. In some units the impact was so great that the standard operational procedures were altered to include the posting of "air sentries" within all sub-units when operating in the field.

How many field force units in Australia, especially the prime target logistic units, have in existence, and have rehearsed, operational procedures in the event of an airborne attack? A tactical free fall mission combined with a major exercise would point up many valuable lessons at all levels. Every major nation in Asia has regular airborne forces. In the majority of TEWT's and exercises in this country we do not even pay lip service to the study of this very real threat. The tactical team could forcibly bring home the point.

Employment in War

Below are some of the roles that could be allotted to tactical free fall teams:

By Night

1. Infiltration of raiding parties.
2. Infiltration of medium and long range patrols.
3. Infiltration of Pathfinder teams.
4. Introduction of agents or assistance groups to friendly tribes or partisans.

By Day

Free fall operations are easier by day as the jumper can track (move laterally over the ground in controlled free fall) without risk of collision with other team members and also because of additional visibility, "spotting" is easier. Hence an extremely high degree of accuracy can be insured. Therefore, a daylight operation would be mounted where accuracy rather than security is the prime factor.

Examples of this type of role are:

1. Introduction of agents or assistance groups into areas of extremely difficult terrain where an enemy threat is unlikely (say in a cold war concept) or in a limited war where the area although geographically isolated from our own lines is not under enemy observation.
2. Provision of immediate medical aid to persons or small groups isolated from ground relief parties by jungle terrain. For example, a shot down pilot unable to be reached quickly by ground or helicopter because of terrain, etc. This

same principle of mercy missions could be applied in Australia in peace or war, viz.: snow or flood bound sufferers.

Deception

Should the enemy become aware that our forces are employing free fall infiltration techniques, the stage is then set to enact a great variety of deceptive measures. These, coupled with a judicious use of actual missions could result in a great wastage of the enemy's front line manpower as well as an overall loss to his war-making potential.

Conclusion

Australia cannot afford massive standing armies with a nuclear capability. Therefore, our defence must rest in limited, yet hard hitting mobile forces.

In the shadow of defeat after Dunkirk, it was to the small

unconventional unit that Sir Winston Churchill turned to take the war back to the enemy's camp. Here at hand was a weapon that cost little in men or material, yet provided an effective counter-point to the all conquering Wehrmacht. "Who Dares Wins".

Let us learn from history.

There is a definite place today for the Tactical Free Fall Team in the army's concept of fighting a cold or limited war in South East Asia.

These teams can readily be formed and trained in peace using existing resources without any additional defence expenditure. By doing so, strength and flexibility are added to the Army's strike capabilities out of all proportion to the size of the original investment.

PARADELAY COMBAT TEAMS

First Lieutenant Charles L. Mullins
United States Army

DELAYED fall parachuting is an art developed through training until it becomes a specialised skill. It is rapidly gaining in popularity throughout the United States and many foreign countries. The general public knows it as skydiving, but they have little or no knowledge of what it is all about. Therefore, it is not surprising that many commanders are unaware that delayed fall parachuting has a serious application in the military sphere; one which increases flexibility of attack and improves the probability of a successful mission.

If we apply the characteristics of flexibility and surprise, Paradelay Combat Teams can be utilised with devastating results by Army Pathfinder Teams employed in major airborne or air-landing operations. They can also be used in small scale raiding parties, long range reconnaissance patrols, counter-insurgency patrols in search of enemy guerilla forces and Special Forces detachments on special missions. Delayed fall parachuting is the ideal method of placing men on the ground in operations where men are required to land undetected behind enemy lines. This technique could conceivably be used on larger scale operations. However,

as the number of Paradelay troops involved increases so will the advantages decrease. For example, the greater the size of the force used, the bigger the area that will be required for a drop zone because the dispersion pattern will be greater. In addition, the number of aircraft needed for a large scale operation will decrease the element of surprise. A Paradelay trooper is much more lightly equipped (but not necessarily limited to light loads), and he requires more training than does the regular paratrooper. Delayed fall parachuting is therefore less likely to be used on large scale operations, but it is an ideal technique when small parachute operations are planned.

The fact that delayed fall parachuting is not suited to large scale operations leads many commanders to believe that it is only an interim technique. Improvements to the staticline technique will in the

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not so distant future give the conventional parachutist many of the advantages possessed today by the delay fall parachutist. The staticline method allows parachutists to be dropped in greater numbers and with less training; however, it does not overcome the drawback of dispersion on the ground or the requirement for a larger drop zone. It would therefore seem likely rather than delayed fall parachuting being replaced by more advanced staticline parachuting, both techniques will advance together, each method being employed where its characteristics are more advantageous. The paradelay technique can be used in small drops, raids and clandestine operations, and staticline parachuting in large scale conventional operations.

At this point you are probably asking yourself, why use the delayed fall technique? What advantage does this method of entry have that conventional parachute entry does not have? Well, let us examine a few of the limitations of conventional parachuting. First, low altitude flying presents serious navigational problems as was evidenced in Normandy in June, 1944. In addition, an aircraft flying over enemy terrain at low altitude is easily detected for what it is — a jump aircraft. The staticline parachutist has very little control over his parachute once it is open. Sure, he can slow down his speed of movement over the ground, but he cannot accurately steer his parachute on to a target. This causes the parachutist to have a ground pattern that is widely dispersed, and this dis-

persion increases with the speed and altitude of the aircraft. To minimise this dispersion he must be dropped from relatively low altitudes. Even so, this demands drop zones of a minimum of 1500 yards for a 30 man stick. When a faster and larger aircraft is used the distance increases, and from a C-124 aircraft a drop zone is required that is slightly more than two miles in length. Add to this the normal human errors in calculation of the exit point and wind changes that are likely to occur, and it adds up to a very widely separated group of paratroopers. This article is not intended to advocate the discontinuance of conventional parachute operations, but is to point up some of the problems that have occurred in the past and suggest a possible means of improving further operations.

When high altitude movement to an objective is used navigation is simplified. Jump aircraft can be concealed as a bomber or reconnaissance aircraft and would most likely go unreported by the enemy airguard. Jump aircraft could take advantage of sophisticated penetration techniques used by bomber aircraft. Additionally, anti-aircraft artillery would be less effective at high altitudes.

Paradelay troops dropping from high altitude are not likely to be detected by radar. They fall freely through the air with no means of support until reaching a predetermined opening altitude. After activating their parachutes, jumpers assemble in mid-air and steer toward their objective. During the period of

free-fall the parachutist controls his body by using his limbs in much the same manner as a pilot controls his aircraft by elevators, ailerons and rudders.

The delayed fall parachutist's basic equipment consists of a harness holding a main parachute on his back and a smaller reserve parachute in front below his chest. The reserve parachute has a small instrument panel mounted on top holding an illuminous dial altimeter. For night operations the altimeter is lighted by the same method as aircraft instruments, using two small red bulbs powered by a small battery mounted just below the panel. He is also equipped with goggles

and a protective helmet, but apart from this, no other special equipment is required.

Normally, a man exiting an aircraft at high altitudes and delaying the opening of his parachute would tumble uncontrollably as he fell. He may tumble head over heels or spin round and round on his stomach or back. These uncontrolled gyrations can result in serious injury and the man may black out and crash to his death. Such tendencies must therefore be eliminated if the man is to have control during his period of free fall, and this is done by assuming a position which is aerodynamically stable. The normal military method of staticline



From an altitude of 13,500 feet at night, the effectiveness of minimum dispersion is pointed out by the five arrows. This group assembled in mid-air and landed undetected.

U.S. Army Photograph.

parachuting can be taught by drill to any person who has the right psychological attitude and normal physical co-ordination, but this is not true of delay fall parachuting. The staticline parachutist need only carry out the techniques drilled into him to complete a successful parachute jump. The delayed fall parachutist must constantly react correctly to fast changing situations and activate his own parachute at the correct altitude. It is therefore necessary that potential delayed fall trainees possess qualities not found in the average soldier. He must be capable of stabilising his body in free fall while at the same time carry heavy loads of equipment and maintain this stability throughout his fall.

By controlling his body during the delay and manoeuvring his parachute after it deploys, the delayed fall parachutist can move over the ground in any direction. This in turn allows him to land with accuracy in very small spaces which could not normally be considered drop zones. He can, by controlling his parachute, land close to his companions without the dispersion inherent in all staticline jumps. All this can be done in daylight or darkness. Thus, the delayed fall parachutist is much more flexible than the staticline parachutist.

The delayed fall parachutist dropped from high altitude would use his ability to manoeuvre during free fall and utilize the inherent steerability of his specially constructed parachute for pin-point accuracy. These two factors can be applied

tactically and certain obvious advantages become apparent. He can be dropped into areas which are unsuitable for the staticline method of entry, such as small valleys in mountainous country, where the terrain prevents aircraft from flying as low as 700 feet above the drop zone, or into areas prevalent in the tropics, where only small or no open areas are available demanding skillful control during descent. All these are obvious advantages, but they would not themselves justify the training of delayed fall parachutists unless these troopers can carry with them the equipment to accomplish the task at hand.

At Fort Bragg, North Carolina, paradelay troops from the U.S. Army Parachute Team are dropped with 65 lb. loads in addition to their required parachute equipment. They jump with such items as M-14 rifles, PRC 10 radios, heavy demolition charges, rucksack and PAE bags. The Paradelay team has repeatedly demonstrated their usefulness on various demonstrations and manoeuvres. For example, a five man Paradelay team was employed against Intelligence personnel of the XVIII Airborne Corps during their spring CPX Sphinx III, conducted from 19 - 22 March 1963. At 0330 hours on the morning of 21 March 1963, five men fell silently through the air from an altitude of 13,500 feet with full equipment. Ten minutes after leaving the aircraft, all five jumpers were assembled on the ground. They had landed within a radius of 25 metres from each other right on target. Due to

peace time safety restrictions, a ground safety man was used in the vicinity of the jump area. The pilot contacted this man by radio and informed him when the jumpers had exited the aircraft. The ground safety man, who was watching and listening for the jumpers, did not see them, nor did he hear the noise of their opening parachutes.

To all intents and purposes the parachutists were invisible and soundless in the dark. Within a few minutes after assembly these men had successfully infiltrated through the security of a Crypto Unit. They placed demolition charges on vital crypto equipment, blew up two generators, a $\frac{3}{4}$ ton truck and a $2\frac{1}{2}$ ton truck loaded with equipment. In addition two charges were placed on the Command Post tent and the infiltrators escaped undetected back through their battle lines. It might be added that one of these infiltrators actually wore a jacket of one of the aggressors back through their lines.

On another occasion, this same Paradelay team, rehearsing for an actual operation, was dropped in an area not knowing that an infantry rifle company was bivouaced there. After assembly in less than five minutes after exiting the aircraft, these infiltrators determined that they had accidentally dropped within the perimeter of a line company. It was decided that they would split up and exfiltrate to a rendezvous point some distance from their location. This was accomplished without incident and the entire team escaped without detection.

It has been determined that delayed fall parachutists are not likely to be detected by radar and are more or less invisible during night descents. The advantages of using Paradelay Combat Teams become clearer when it is realized that the noise of a high flying aircraft is not usually detectable. A single aircraft is often unidentifiable on radar screens because of other traffic. Surprise can be gained by the undiscovered approach of the troopers, and a single aircraft flying at high altitudes, even if detected, is not likely to suggest that infiltrators are in fact being dropped. Keeping these advantages in mind, a complete new concept can be visualised, provided of course, that we use our past airborne operations as object-lessons for future wars.

In terms of evolution one might say that the paradelay concept arises from the failure of conventional parachute methods to provide the commander with the desired flexibility. Now, let us take a closer look at past airborne operations and retroactively apply this concept where it fits. In studying some of the surprising developments of World War II, one finds the appearance of so-called private armies; units of a few men landing together carrying the war into the enemy's camp. One such unit was the British SAS. It is only since the war that history has revealed the effectiveness of this unit, mainly because its early exploits and the successes of its heyday were concealed by censorship. History is saturated with factual and

startling tales of adventure in the form of hit-and-run raids, coolly planned and brilliantly executed. Future commanders can learn much from a study of the British SAS of World War II. They did not use the paradelay technique of entry because it was not yet developed. However, after studying the numerous raids that were conducted by the SAS, it is felt they possibly could have encountered fewer problems employing this method. Even so, their operations were considered very successful. As an example; Rommel was forced to double and redouble his guards to curb the constant menace of specialised troops.

Small parties of saboteurs can be dropped from bombers or reconnaissance planes on routine missions behind enemy lines. Each paradelay trooper would be a specialist in his own field, but all being masters of explosives. They could probe their way through hostile territory in the dark accomplishing numerous missions on road convoys, supply depots, enemy airfields and many other targets of opportunity. They can be dropped by parachute and picked up by helicopter or submarine. There are endless techniques of recovery. In order to protect their rear and centre of perimeters the enemy would be forced to employ counter-measures in the form of front line troops. Additionally, all this can be accomplished with a handful of men, a few pounds of explosives, a few rounds of ammunition and courage.

Consider the results of an operation, if on the eve of battle

several hundred troops were sent to a hostile shore for the sake of storming an airbase (which is not to be held). The real aim is the destruction of its aircraft and this might be achieved more thoroughly and at slight cost by half a dozen paradelay saboteurs fixing timed incendiary bombs on the planes. Dispatching several such groups, an Army Commander could hit any number of airfields at once. Succeeding at only one target out of four, damage assessment would be far greater than fifty odd planes which conceivably is all that can be hoped for at any one target airfield.

With such specialised paradelay troops available to army commanders, a future enemy's superiority could be neutralised, while no opposing leader could rest easy even in his central stronghold. No army could be free from penetration and disruption and no vital stores or stockpile of atomic weapons be secure from marauders.

In conclusion, it can be said that paradelay techniques can be a useful and vital military weapon in a hot war or in counter-insurgency situations. It is a specialised technique suitable for special tasks.

The paradelay technique of entry is not an interim measure and its capabilities cannot be ignored by conventional military theorists. The benefits obtainable from the employment of Paradelay Combat Teams are well worth any extra time and money which may be required to train such parachuting specialists.