

AIR POWER STUDIES CENTRE

PAPER 14

June 1993

**THE TRANSFORMATION OF 'LOW INTENSITY'
CONFLICT**

By

Doctor Alan Stephens

About the Author

Dr Alan Stephens is a senior research fellow at the RAAF Air Power Studies Centre. He has published four books and numerous articles on air power and Australian defence, and is a former RAAF pilot.

INTRODUCTION¹

There are three levels of war: global nuclear war, general war and limited war. Global nuclear war has never been experienced. World War II was an example of a general war, in which the total resources of the major belligerents were used and the national survival of one or more of the protagonists was at risk. The final category of limited war defines any armed conflict short of general war. A limited war will be constrained in some way: geographically; the amount of resources committed; the kind of weapons employed; or the political objectives of the participants.

LOW INTENSITY CONFLICT

Limited war is often described as being high, medium or low intensity. The precise level of intensity of a conflict is not always easy to categorise. In particular, interpretations of what constitutes 'low intensity' conflict (LIC) have varied widely, with some commentators using the term to describe military actions ranging from insurgencies involving a handful of participants to the Second Indochina War.²

The concept of LIC was in fact developed in the 1970s in an attempt to define a wide range of political-military activities which were less intense than modern, conventional limited war. Thus, for Western defence forces, LIC generally has been associated with counter-insurgency, anti-terrorist and peace-keeping operations, and has been expressly associated with instability in the Third (underdeveloped) World.³

However, other factors have blurred the edges of that neat definition. In particular, the questions of scale and the kinds of weapons used have caused semantic confusion. During the Second Indochina conflict, for example, on occasions the efforts of the United States and its allies were directed towards counter-insurgency and anti-terrorist operations, and political machinations. When combined with the geographic containment of the fighting, those characteristics led some commentators to describe the fighting as LIC. Yet battles such as the 1968 Tet offensive and the Rolling Thunder and Linebacker bombing campaigns clearly were fought on a scale and intensity which would place them at the upper level of limited war. Further, while the war may have seemed 'low intensity' to Western analysts in terms of their commitment and objectives, to the North Vietnamese it was a fight for national survival which involved total mobilisation.

Because of the problems of precisely categorising LIC, some commentators have instead identified the qualities which are said to differentiate LIC from high intensity

¹ My thanks to Wing Commander P.B. Layton for his valuable comments on the draft of this paper.

² Thompson, Loren B., 'Low Intensity Conflict: An Overview', in Thompson, Loren B. (ed.), *Low Intensity Conflict*, Lexington Books, Massachusetts, 1989, p 3.

³ *ibid.*, pp 2-3; qv United States General Accounting Office (US GAO), *US Weapons: The Low-Intensity Threat is Not Necessarily a Low-Technology Threat*, March 1990, p 1.

conflict (that is, modern, conventional limited war). In 1989, Loren Thompson suggested that there are five distinguishing characteristics of LIC:

- a. Low intensity conflicts cannot be won solely through the application of massed firepower. They require more subtle tactics and special forms of politico-military expertise.
- b. Low intensity conflicts seldom involve formal military engagements between uniformed armies in an identifiable front line area. There usually is no distinction between front line and rear areas, and forces seeking to overthrow established authority will employ elusive formations that avoid confrontation with government troops.
- c. The main objective of both sides in low intensity conflict is to influence the perceptions and loyalties of the civilian population. This may be achieved through persuasion or coercion but always with the goal of depriving the opponent of popular support.
- d. In the words of Edward Luttwak, 'Low Intensity wars are all different, and each requires an *ad hoc* set of operational procedures'. Thus, a key task for forces seeking to suppress terrorists or insurgents is 'to develop one-place/one-time adaptive doctrines and methods'.
- e. In low intensity conflicts, military activities are heavily circumscribed by political considerations. Furthermore, military forces may play a less important role than political organisers, medical workers, police, and other non-military personnel in determining a conflict's outcome.⁴

It is noteworthy that, using Thompson's list, the massive United States involvement in Vietnam qualifies as LIC on most counts.

In 1991, Martin van Creveld also prepared a list of the 'principal characteristics' of LIC, but with several differences. Van Creveld suggested that LIC will rarely involve regular armies on both sides, but instead will most often be a case of regular forces from one side fighting guerrillas, terrorists, or even civilians, women and children from the other.⁵ He also noted that most LICs do not rely primarily on high technology collective weapons, specifically excluding aircraft, tanks, missiles and heavy artillery. There was a clear inference that the exclusion of high technology equipments would continue to be a feature of LIC.

The characteristics identified by Thompson and van Creveld carry implications for the ways in which military strategies should be developed and defence forces structured. Recent experience suggests, however, that their observations have been superseded, at least as they relate to the ambit of LIC and the kinds of weapons which might or should be used.

Notwithstanding the original model, LIC has now become recognised as a phenomenon which is not restricted to the Third World, but which probably constitutes the most likely level of security threat to the majority of nations, including

⁴ Thompson, *Low Intensity Conflict*, pp 3-4.

⁵ van Creveld, Martin, *The Transformation of War*, The Free Press, New York, 1991, pp 20-25.

those of the First (developed) World. The civil wars, insurrections and violent political disputes – that is, the 'low intensity' conflicts – which have followed the collapse of the Soviet Empire have occurred in countries which, while not as developed as the West, are considered outside the ambit of the Third World. The former Yugoslavia and the Baltic States provide examples. In some Western states, the social menace posed by illegal narcotics trafficking is seen as a principal danger to national well-being, that is, as a *security* threat. It is for that reason that Western military forces are commonly employed on counter-narcotics duties. More broadly, Australia's endorsed defence policy places priority on dealing with 'low level activity',⁶ and the United States Department of Defence recognises that LIC is a form of conflict 'highly likely to occur in the future'.⁷

The suggestion that high technology weapons systems have only marginal utility in LIC is also problematical. During the American actions in Grenada (1983), Libya (1986) and Panama (1989) – each of which had very limited political objectives and observed strict controls on the application of military power – US forces still used the most advanced technologies, ranging from F-117 Stealth fighters/bombers through to precision guided munitions (PGMs) and satellite reconnaissance and communications.⁸ Submarine actions during the Falklands War (1982), which included surveillance, and anti-surface, anti-submarine and unconventional warfare, have been described by one naval analyst as 'low intensity conflict'.⁹ United States military planners are now giving serious attention to developing strategies and force structures which emphasise technological rather than manpower-intensive solutions to the full range of security threats.

In summary, if the original definition of LIC as a phenomenon associated with instability in the Third World could be applied comfortably enough to insurgencies and guerrilla uprisings during the post-Colonial/Cold War era, its common application is now much broader. Further, Martin van Creveld's suggestion that LIC will exclude advanced technology collective weapons has become highly questionable. Those developments have profound implications for the development of defence strategies, concepts of operations and force structures.

THE NEW CENTRE OF GRAVITY

There is strong evidence that First World attitudes towards military action have undergone a fundamental transformation, even if attitudinal change has not always been formally reflected in doctrines or force structures. The turning point was the disaster in Vietnam from 1962 to 1975, when about 60,000 foreigners – mostly

⁶ Policy Information Paper, *The Defence of Australia*, 1987 (DOA87), AGPS, Canberra, 1987, pp 24-5.

⁷ US GAO, *US Weapons: The Low-Intensity Threat is Not Necessarily a Low-Technology Threat*, pp 2-3. Martin van Creveld has noted that of the 160 or so armed conflicts fought in the world since 1945, at least 75 per cent have been at the lower end of the LIC scale. Van Creveld, *US Weapons: The Low-Intensity Threat is Not Necessarily a Low-Technology Threat*, pp 20-25.

⁸ USAF commentators have categorised each of those actions as LIC. See Bateman, Captain Vance C., 'The Role of Tactical Airpower in Low Intensity Conflict', in *Airpower Journal*, Spring 1991, pp 72-80.

⁹ Mackin, Captain John J., *The Submarine in Low Intensity Conflict: Lessons from the Falklands*, Naval War College, Newport, 1990.

Americans, but also Australians, New Zealanders, South Koreans, Thais and Filipinos – died thousands of miles from home in a war which had no relevance to the immediate security of any of them except the Thais.¹⁰

Vietnam was a traumatic experience for the Western armies and societies involved (as was Algeria for the French and Afghanistan for the Soviets). Because of that trauma, developed countries are no longer willing to risk large numbers of casualties in war unless national survival, vital interests or, possibly, honour, is perceived to be under threat.¹¹

The fact is that in the 20 years since the defeat in Vietnam, the West's attitude to conflict has been transformed. Martin van Creveld was right to identify LIC as the most common form of warfare, but he was wrong in his analysis of how it will be approached, at least by the First World. For the West, the model for *any* military engagement now is not some disaster in an Asian jungle, but Operational Desert Storm. There are two reasons for this, neither of which is conditional upon the specific circumstances which obtained in the Gulf.

First, Western armed forces generally enjoy a substantial technological advantage over the rest of the world. It is therefore logical for the West to try to *fight at a distance*, a practise which will enable them to maximise their technological superiority. Many poorly equipped armies fight very well at close range; the point is to deny them that opportunity. The strategy applied in Desert Storm achieved that objective.

Second, as a consequence of the trauma of Vietnam, casualties have become the West's centre of gravity. The experience of Desert Storm is instructive here. During the planning for the operation, General Schwarzkopf was deeply concerned by the possibility of a blood-bath between the opposing ground forces.¹² It was only after he had been briefed on the proposed air campaign – which promised a swift and overwhelming victory – that Schwarzkopf realised victory was possible without unacceptable casualties.¹³ By fighting Iraq at a distance, the Coalition minimised its losses. Indeed, in the wake of Desert Storm, it seems possible that many Western citizens will also expect enemy casualties to be contained. If that is the case, there will be even greater pressure on decision-makers to avoid large, direct clashes between surface forces.

Schwarzkopf's approach now appears to have been formalised in the strategic thinking of the US Army, which is in the process of preparing modernisation plans to take it through to about the year 2020. Drawing on the experiences of Operations Just Cause (Panama) and Desert Storm, and taking into account the drastic reductions in

¹⁰ The Philippines would not be described as a developed economy, but the first four countries would; while Thailand is categorised as a Newly Industrialising Economy.

¹¹ The British expedition to the Falklands in 1982, which placed at risk the lives of thousands of surface force troops, can be partly explained in terms of national honour, in which the personality of Prime Minister Thatcher was a factor. See Paul Eddy *et al.*, *The Falklands War*, Andrew Deutsch, London, 1982, pp 97-102, 262.

¹² Palmer, Michael A., 'The Storm in the Air: One Plan, Two Air Wars?', in *Air Power History*, Virginia Military Institute, Winter 1992, pp 25-29.

¹³ Schwarzkopf, General H. Norman, *It Doesn't Take a Hero*, Bantam, New York, 1992, pp 314-320.

force sizes and budget allocations the Clinton Administration intends imposing, US Army planners have identified five long-term strategic missions which they believe are fundamental to their goal of land-force domination.¹⁴ Their prime planning consideration is the need to win conflicts swiftly and decisively, with minimum casualties. In the context of this discussion, the most noteworthy of the five missions is the intention to become engaged in conflict 'only after enemy forces have been significantly weakened through sustained attack and are blinded by electronic countermeasures'. *If* that necessary condition can be satisfied, then the surface attack can begin, but it must be 'swift and overwhelming, to decisively annihilate the enemy'. That condition will apply, according to the US Army, '*regardless of the size or intensity of future conflicts*'.¹⁵

It is most important to note here that the US planners are not simply seeking to overwhelm all enemies with massive technological superiority (as was largely the case in Vietnam), but also are identifying the *conditions* under which their doctrine will be relevant.¹⁶

The evolution of that approach has been clear enough. In 1983, following the death by car bomb of 260 American Marines on peace-keeping duties in Beirut, President Reagan immediately withdrew the remainder of the force. The mission was not sufficiently important to US interests to risk further casualties. The following year, reacting to that tragedy and with the wounds from Vietnam still painful, US Defence Secretary Caspar Weinberger presented a list of conditions which he believed would have to be satisfied before American forces would be committed to combat. He suggested, *inter alia*, that:

- a. military action should not be used unless deemed 'vital to our national interest';
- b. if the use of combat forces is considered necessary, the nation should do so 'whole heartedly and with a clear intention of winning'; and
- c. before committing forces to combat, the government should have reasonable assurance of popular support and the support of their elected representatives.¹⁷

More recently, Nato leaders have persistently refused to consign ground forces to other than (largely ineffectual) peace-keeping activities in Bosnia-Herzegovina, where there are no vital Western interests at issue.¹⁸ Similarly, Western politicians have stated unequivocally that their troops will be withdrawn from the United Nations Transitional Authority in Cambodia (UNTAC) should open war break out between Cambodian government forces and the Khmer Rouge.¹⁹ In short, the West is prepared

¹⁴ 'US Army Stresses Shift to Modernised, Rapid-Reaction Force', in *Defense News*, Jan 18-24, 1993, p 26.

¹⁵ *ibid.*, p 26. Emphasis added.

¹⁶ For penetrating observations on the logic of technology and of war, see van Creveld, Martin, *Technology and War*, The Free Press, New York, 1991, pp 311-320.

¹⁷ Quoted in Babbage, Ross, 'The Use of the Military in Times of Deep Peace', in Alan Stephens (ed.), *Smaller But Larger: Conventional Air Power in the 21st Century*, Air Power Studies Centre, Canberra, 1991, pp 204-205.

¹⁸ 'Sarajevo Attacked as World Watches Srebrenica Siege', in *The Times*, 23-3-93, p 11.

¹⁹ 'Troops to Stay in Cambodia for Now, Says [Australian Foreign Minister] Evans', in *The Canberra Times*, 12-4-93, p 1.

to try to keep the peace, or to mount humanitarian operations where the risk of casualties is low (as in Somalia), but it will stop short of enforcing settlements.

That does not mean the West will completely avoid engagement in conflicts which are peripheral to vital national interests. Actions similar to those mounted by the United States in Grenada, Libya and Panama will continue, as long as there is a high degree of confidence that casualties can be contained to a publicly acceptable figure.

If First World governments decide to avoid 'LIC' unless they are confident of a rapid and overwhelming victory, Edward Luttwack's observation that each conflict will require a new set of operational procedures (see p 4 above) will be outdated. On the contrary, there will be one basic military response, which will rest on the West's technological superiority. Where that response cannot be made, combat will be avoided. That approach will be followed regardless of the level of conflict.

Given the cutbacks which are almost universal in First World defence forces, the only way in which that new military imperative can be translated into action is through substituting advanced technologies for manpower. It is an imperative which inevitably will see an increasing use of air forces and, to a lesser extent, navies, in 'low intensity' conflict; while armies increasingly will become clean-up and occupation forces.

THE IMPACT OF HIGH TECHNOLOGY

Martin van Creveld drew his conclusion regarding the exclusion of high technology from LIC before the 1991 Gulf War was fought. While many of the advanced systems which had such an important bearing on the outcome of that war had been available for a number of years, their capabilities were not widely appreciated. Yet the trend towards technological solutions to security threats has been obvious, and there is no longer any excuse for ignorance.

As has already been noted, a characteristic of some recent 'LICs' (Grenada, Libya, Panama) has been the use of the most advanced weapons systems, the results of which were widely publicised.²⁰ Access to high technology across the spectrum of military capabilities is not the sole preserve of the developed nations (although they will retain their relative advantage). During the war in Afghanistan between Soviet-backed government forces and the *mujahideen* guerrillas which finally ended in victory for the insurgents in 1992, the acquisition by the *mujahideen* of Stinger anti-aircraft missiles changed the nature of the war. During the early years Soviet aircraft, and especially attack helicopters, exercised a dominant influence over land operations. However, once the *mujahideen* added the Stinger to their inventory, they began to inflict unacceptably high losses on the government air forces.

The collapse of the former Soviet Union and the modernisation of China mean that highly lethal advanced weapons will rapidly become widely available, as Moscow

²⁰ See, for example, US GAO, *US Weapons: The Low-Intensity Threat is Not Necessarily a Low-Technology Threat*, passim. For general comment on high technology in modern conflict, see 'Breaking Free: Defence in the 21st Century', in *The Economist*, September 5th 1992, pp 3-20, esp. 'We Have the High Tech, They Do Not', pp 10-14.

tries to raise urgently needed hard currency and Beijing increasingly flexes its muscles as an emerging superpower.²¹ In a report to Congress, the US General Accounting Office concluded that 'advanced military technology has been distributed throughout the Third World and is easy to acquire'.²² The possibility cannot be discounted that conflicts which previously might have been described as 'low intensity' or 'peripheral' because of their political and/or geographic limits might now involve weapons of mass destruction.²³ Proliferation remains a danger at all levels of conflict as long as rogue states like North Korea and Iraq reject international conventions.²⁴

At this stage, therefore, the term 'low intensity' conflict has not only ceased to have any useful meaning, it has become dangerously misleading. It is more accurate to describe *all* warfare of a scale less than general war as 'limited war', and military actions outside limited war as 'conflict short of war'. The distinction is critical, as, unlike the term 'low intensity', no inference is made regarding the way in which those contingencies should be combated.

CONFLICT SHORT OF WAR

While the use of advanced technology can be expected to increase rapidly in conflict short of war, there are obvious boundaries. At the lower end of the scale, such as terrorism and drug trafficking, there is no substitute for numbers on the ground. The direct application of force against small groups of terrorists is likely to continue to rely primarily on Special Forces. In its largely successful attempt to contain the IRA in Northern Ireland, the United Kingdom has had little option other than to maintain what amounts to an army of occupation in Ulster. (Note, however, that the casualties, while distressing, have been contained to a level acceptable to the British public.) The humanitarian action in Somalia could only be effected by large numbers of ground forces. Tens of thousands of para-military and law enforcement officers are employed world-wide in an attempt to control the flow of illegal narcotics and to capture and punish drug criminals. Protecting entire urban communities from individual violence is a manpower-intensive business.

Nevertheless, ground forces attempting to combat terrorism and drug trafficking have become increasingly dependent on technology. The most obvious contribution has come from the ubiquitous helicopter. In the past, the value of helicopters has rested primarily on their ability to respond rapidly and to insert friendly forces into otherwise inaccessible locations. Their utility should not, however, end there. As the Gulf War demonstrated, helicopters have become highly capable weapons systems: they are bigger, relatively fast, can carry impressive loads, and can be fitted with the most modern navigation, weapons and surveillance systems.²⁵ For anti-terrorist and counter-narcotics work, the employment of night vision goggles (NVG) and infra-red

²¹ See Richardson, Michael, 'Malaysia wants the MiG-29M' and 'China's Build-up Rings Alarm Bells', in *Asia-Pacific Defence Reporter*, February/March 1993, pp 8, 10-11.

²² US GAO, *US Weapons: The Low-Intensity Threat is Not Necessarily a Low-Technology Threat*, p 3.

²³ See 'Asia Leads Quickening Race for Nuclear Status', in *The Times*, 27-3-93.

²⁴ 'North Korea Quits Treaty to Halt Spread of Nuclear Arms', in the *Los Angeles Times*, 12-3-93, p A4.

²⁵ See Coyne, James P., *Airpower in the Gulf*, Air Force Association, Arlington, 1992, pp 67-68.

targeting and tracking systems probably represent the most useful development, having made 24-hour surveillance and response from the air largely possible.

Stretching the boundaries which in the past have constrained the use of advanced technology in conflict short of war does not end there. The employment of air assets in anti-terrorist and counter-narcotics actions is not confined to helicopters; nor should it be. Military fixed-wing aircraft and major naval surface combatants have been used extensively and effectively against both kinds of security threat, and there is considerable scope for further, innovative action.

For example, several American agencies have for some years used substantial numbers of fixed-wing aircraft for detection, communications, and command and control in the fight against drugs. The US Customs Service operates Grumman E-2C Airborne Early Warning (AEW) aircraft to detect the attempted illicit importation of narcotics by light aircraft. Those E-2Cs have been supplemented by three Lockheed P3 Orion AEW aircraft, with a fourth on order. One Orion has been specially modified with an airborne intercept radar, so that Customs can intercept, as well as detect, suspects.

Military units are also involved. The US Navy (USN) has a special operations squadron of E-2Cs based at Norfolk, Virginia, whose tasks include the detection of aircraft involved in drug trafficking. An advanced command, control and coordination capability has been provided to both the Navy and Customs by USAF AWACS aircraft²⁶ (The commitment of AWACS aircraft to counter-narcotics work has been so demanding that some military commanders have complained about insufficient support for other operations.) Airborne Battlefield Command and Control Centres (ABCCC) have also been used for that purpose. Major surface combatants of the USN have been used as part of the counter-narcotics detection, classification, interception and information screen. Submarines can also be employed in that role.²⁷

The technology available for use in airborne platforms to detect and classify possible security threats – both vehicular and human – will continue to improve; indeed significant developments are already either coming into service or are close to doing so. Radar provides one example. Current early warning radar systems generally are limited to detecting (as opposed to detecting *and* classifying) targets. Synthetic aperture and phased array radars both promise major operational improvements in the near future.²⁸ Radar systems can be complemented by aids to visual detection and classification, such as infra-red sighting and tracking devices; low light television; and Electronic Support Measures (ESM) for the passive detection of electronic emissions. The use of Unmanned Air Vehicles (UAVs) to carry sensors into high rise areas will further increase the value and availability of airborne surveillance.²⁹

²⁶ See Nance, Major William T., *Necessary Details of Troops: The United States Air Force and Counter drug Operations*, Air University Press, Maxwell, 1989.

²⁷ Mackin, *The Submarine in Low Intensity Conflict: Lessons from the Falklands*, pp 17-18.

²⁸ See 'Sensor Techniques and Trends', in *Asia Defence Journal*, December 1992, p 42.

²⁹ For examples of the capabilities and potential of UAVs, see 'UAVs More than Just Eyes in the Sky', in *Jane's Defence Weekly*, 16 May 1992, pp 851-855; and 'UAV: A New Philosophy in Asia-Pacific', in *Asian Defence Journal*, December 1992, pp 28-36.

Anti-terrorist operations can utilise similar surveillance and detection systems. Monitoring national boundaries and infiltration routes is one obvious application. However, because terrorists often travel singly or in small groups on public transport, and superficially may be indistinguishable from the general populace, trying to detect them with airborne sensors clearly has its limits.

Some nations have successfully used pre-emptive or 'demonstration' air strikes to punish or deter terrorism. Anti-terrorist strikes have been routinely conducted by the Israeli Air Force, an organisation which, as well as having suitably skilled pilots and advanced weapons systems, has also had an abundance of targets and been supported by a government prepared to ignore world opinion. The United States' 1986 raid against Libya was another notable example of the practice.³⁰ Like the surveillance of terrorists, however, the strategem plainly has limits. Difficult questions must be answered: will a strike be politically acceptable to world opinion; is there a suitable target; what is the likelihood of retaliation; can collateral damage be kept to an absolute minimum?

At the same time, the enormous improvements made in airborne sighting systems and precision guided munitions (PGMs) should facilitate contingency-specific uses of air power against terrorists. When, for example, the location of a terrorist group is known and there is little risk of unintended casualties, and circumstances dictate offensive action, an air strike using a single PGM (possibly with an inert warhead) will offer a very high probability of success without placing any friendly force at risk.

Before moving up the scale of conflict to discuss limited war, an important observation on the wider use of the kinds of capabilities reviewed above must be made. Without exception, the detection, classification and interception capabilities which have been employed by air forces in counter-narcotics operations are precisely those needed to control the most likely causes of conflict in the future; namely, disputes over off-shore resource rights, and refugee and migration flows.³¹ For Australia, it is difficult, if not impossible, to see how those threats could be controlled other than by the use of advanced airborne sensors working in conjunction with an area surveillance system like the Jindalee Over-the-Horizon-Radar Network (JORN). A nation of 17,000,000 people with 36,700 kilometres of coastline, and which defines its area of direct military interest as comprehending about 10 per cent of the earth's surface, has no other option.³²

LIMITED WAR

This section will discuss those types of conflicts within the category of limited war which almost invariably have been described as 'low intensity'; namely, insurgencies,

³⁰ Kopp, Carlo, 'The Libyan Strike: How the Americans Did It', in *Australian Aviation*, July/August 1986, pp 34-35.

³¹ The Strategic and Defence Studies Centre of the Australian National University has stated that the most likely causes of future conflict will be disputes over fishing and natural resources, territorial claims, overlapping Exclusive Economic Zones, and migration and refugee flows: *SDSC Newsletter*, December 1992, p 1.

³² The definition of Australia's 'area of direct military interest' comes from Department of Defence, *The Defence of Australia, 1987* (DOA 87), AGPS, Canberra, 1987, p 2.

civil war and guerrilla war. The application of high technology in those contingencies will, in the main, be the province of air forces. Navies have a valuable role to play in patrolling, surveillance, blockading, and so on, but are restricted to the single combat environment. The focus here will therefore be on air power.

Primarily because of the difficulties experienced in applying offensive air power effectively during the Malayan Emergency and the Vietnam War, air forces are sometimes said to have failed in those conflicts and, by extension, to be of marginal value in insurgencies and guerrilla warfare.³³ Air strike operations in Malaya and Vietnam undoubtedly experienced problems. However, it is peremptory to generalise from those experiences. A number of important facts must be understood.

In both Malaya and Vietnam, allied surface forces fought free from enemy air attack.³⁴ Whether or not that condition was attributable to the enemy's shortcomings or the traditional superiority of Western forces in the fight to control the skies is irrelevant. What is relevant is that allied soldiers could discount any air threat when planning and prosecuting their operations.³⁵ The argument has also been made that air power was critical in preventing, or at least containing, the communists' ability to effect the transition from guerrilla warfare to conventional warfare.³⁶ Finally, the advantages derived from aerial reconnaissance, surveillance, close air support, resupply and transport support were essential to the success of surface operations.

As far as offensive air operations were concerned, a number of aspects must be taken into account. During bombing operations against the communist terrorists in Malaya from 1950 to 1960, Commonwealth air forces flew almost 4000 sorties and dropped 35,000 tons of bombs to kill only 23 insurgents.³⁷ For some commentators, such 'senseless' bombing only induced a feeling of contempt for modern air weapons.³⁸ Yet in the opinion of the British Army officer directing operations in Malaya, Lieutenant General Sir Harold Briggs, the bombing campaign was necessary because it kept the terrorists on the move and enabled Commonwealth ground forces to make more frequent contact than would otherwise have been the case. Further, as Briggs himself admitted, he used air power in Malaya because he had no other way of striking at his enemies; quite simply, neither his land nor sea forces initially were capable of offensive action.³⁹

³³ See, for example, Waters, Alan Rufus, 'The Cost of Air Support in Counter-Insurgency Operations', in *Military Affairs*, October 1973; and Clutterbuck, General Richard, in Armitage, Air Marshal M.J. and Mason, Air Commodore R.A., *Air Power in the Nuclear Age* (2nd ed.), University of Illinois Press, Urbana, 1985, p 68.

³⁴ That was also the case in Korea.

³⁵ As a general observation, there is very little collective memory in American and Australian surface forces of what it is like to fight a war under air attack. When the value of control of the air is being examined in military academies, etc., those who question its importance would be well advised to seek comment from their counterparts from the United Kingdom who fought in the Falklands in 1982; and from the various Arab armies which were devastated by the Israeli Air Force in 1967 and 1973.

³⁶ Austin, Greg, in Stephens, Alan (ed.), *Smaller But Larger: Conventional Air Power into the 21st Century*, Air Power Studies Centre, Canberra, 1991, pp 31-32.

³⁷ Stephens, Alan, *Power Plus Attitude: Ideas, Strategy and Doctrine in the Royal Australian Air Force, 1921-1991*, AGPS, Canberra, 1992, pp 126-127.

³⁸ Clutterbuck, in Armitage and Mason, *Air Power in the Nuclear Age*, p 68.

³⁹ Stephens, *Power Plus Attitude: Ideas, Strategy and Doctrine in the Royal Australian Air Force*, pp 127-128.

Similarly, in Vietnam, if aerial bombing did not bring the war-winning results predicted by some airmen and sought by politicians, it at the least saved battles and many, many soldiers' lives, with the defeat of the siege at Khe Sanh being the best known example.⁴⁰ But there is more to the business than that.

The key factor governing the success of offensive air power, regardless of the level of conflict, is targeting. During the bombing campaign against Vietnam from 1965 to 1968, code-named Rolling Thunder, the North Vietnamese were essentially fighting a guerrilla war. Consequently, in the South targets were few and fleeting; while over the North those of strategic value were rare.⁴¹ By 1972, however, when the Linebacker air campaign was initiated, the North Vietnamese were using a greater proportion of conventional forces – artillery, tanks and large troop concentrations – which were difficult to hide and needed extensive logistic support. Thus there were more targets worth hitting and they were easier to find. Partly for those reasons, the Linebacker campaigns are generally regarded to have been effective.⁴²

Given those achievements, perhaps generalisations about the past utility of air power in peripheral conflict should not be drawn too hastily. A wide range of models should be examined. For example, one which provides a contrast to the Southeast Asian experience (but which is rarely cited in Western military academies) is the French involvement in Chad between 1968 and 1986. During those years, French military forces made four separate incursions into the civil war in Chad, in the course of which they shifted their emphasis from lightly equipped, rapidly deployable ground forces to almost total reliance on air power.⁴³ Key factors in that change were the ease and speed of insertion and extraction of air forces; the ability of high technology (air power) to control vast regions; and the greatly reduced exposure to casualties.

Those factors facilitate the use of air forces in peripheral conflict. In the future, they will become more compelling through the dramatic advances in targeting and weapons delivery which were first evident in Indochina, and which were graphically illustrated during the 1991 Gulf War.

Precision guided munitions were first used in significant numbers towards the end of the Vietnam War, when targets which had withstood hundreds of attacks were knocked out in one or two raids, the classic examples being the Than Hoa and Paul Doumer Bridges near Hanoi in 1972.⁴⁴ Precision munitions are now recognised as being so important that the US Navy – which was criticised for its limited use of PGMs in the Gulf War – is using money raised from closing down bases to invest in advanced weapons.⁴⁵

⁴⁰ Armitage and Mason, *Air Power in the Nuclear Age*, pp 96-98, 111.

⁴¹ Werrell, Kenneth P., 'Air War Victorious: The Gulf War vs. Vietnam', in *Parameters*, Summer 1992, p 44; qv Clodfelter, Mark, *The Limits of Air Power*, The Free Press, New York, 1989.

⁴² Kissinger, Henry, *The White House Years*, Hodder and Stoughton, Sydney, 1979, pp 1446-1461.

⁴³ See Lorell, Mark, 'Lessons from the French Experience in Low Intensity Conflicts', in Vallance, Group Captain A.G.B. (ed.), *Air Power: Collected Essays on Doctrine*, HMSO, 1990.

⁴⁴ See 'A Tale of Two Bridges', in *Air War – Vietnam* (introduction by Drew Middleton), Arno Press, London, 1978, pp 1-96.

⁴⁵ *The Los Angeles Times*, 11-3-93, p A13.

The ability to conduct precision strikes represents one of the most significant developments in the history of air bombardment. In 1993, if a target can be identified, it almost certainly can be hit. Ironically, the true significance of that development is best illustrated through an examination of its relevance to insurgent or guerrilla warfare, rather than a larger-scale conflict like Vietnam or the Gulf. (In any case, it should not be necessary to argue the case in relation to larger wars: the evidence of the Gulf is clear enough.) The civil wars in the former Yugoslavia provide a contemporary model.

The political and strategic circumstances of the brutal conflict in Bosnia-Herzegovina bear no relation to those in the Gulf. Yet a good case can be made that once the United Nations' traditional method of peace-keeping – putting large numbers of soldiers in place on the ground – had been treated with contempt by the Serbs, offensive air power should have been used. The warring ground forces were equipped with armour, artillery and low-level air defences, and were often organised into reasonably large formations. They accordingly were vulnerable to air attack, which could have been employed in a controlled, graduated fashion to try to stop the fighting, and without placing large numbers of friendly forces at risk.

A possible operational sequence has been postulated by Air Vice-Marshal R. A. Mason. In ascending order, there would be 'a huge show of force, then a demonstrative strike on a pre-designated and pre-warned target and finally suppressive strikes on significant installations or heavy equipment'.⁴⁶ At each stage the belligerents would be urged to cease their actions. If and when a strike was finally made, only PGMs would be used.

One of the more depressing failures in Bosnia of the traditional 'peace-keeping' response was the attempt to stop the shelling of Sarajevo. Alternatives were available. Applying the tactic described above, a strike aircraft fitted with an infra-red detection and targeting system and a laser-designator could have stood off from Sarajevo at a distance of about 10 miles and an altitude above 15,000 feet; that is, outside the range of short and medium range surface-based anti-aircraft weapons. The flash from an artillery piece's muzzle would be detected on the infra-red system, the target laser-designated, and a PGM released. If there were problems with the use of infra-red sighting systems (such as moisture or field of vision), special forces equipped with anti-battery radars could have been deployed to locate artillery and relay targeting data to the strike aircraft.⁴⁷

The total time from detection to destruction would be in the order of seconds. It is reasonable to suggest that the response of gun crews to that kind of treatment would be the same as that of Iraqi radar operators who, during the Gulf War, would not turn their sets on, as they knew that within seconds they would be the target of an anti-radiation missile.⁴⁸

⁴⁶ Mason, Air Vice-Marshal R.A., 'How Air Power could be used to pacify Bosnia', in *The Canberra Times*, 3-7-92, p 10. See also Hamwood, Group Captain J. S., *Graduated Response by Air Power: The Art of Political Dissuasion by Military Means*, APSC Paper No 7, APSC, Canberra, 1992.

⁴⁷ Kenney, George and Dugan, Michael J., 'How an Allied Coalition Could Beat Serbia', in the *Herald Tribune*, 30-11-92.

⁴⁸ Coyne, *Airpower in the Gulf*, pp 50, 71, 94.

A variation of that concept might involve direct air attacks against the Serbian elite. An ultimatum would be sent to Belgrade, giving the civilian population 14 days to evacuate the city and the Serb government the same time to cease all hostilities in Bosnia and elsewhere. Should they fail to comply, air attacks would be made against government and military targets – that is, the national power base – with the objective of eroding political support for the ruling regime.⁴⁹

The assertion is sometimes made that the offensive use of air power as proposed above may be 'intimidatory' or 'escalatory'. That is an outlook which is based as much on speculation as fact, and which would draw little support from the residents of Sarajevo and Srebrenica, among others.

Other innovative strategies and advanced weaponry will continue to be developed to maximise the advantages of high technology and overcome political or geographical problems. In Bosnia, it could be difficult to distinguish between ground forces (especially when each side reportedly has wilfully shelled its own civilians for propaganda purposes); while in Vietnam, dense jungle canopies sometimes militated against effective bombing. Yet in the latter case, terrain is only one component of the strategic equation: for instance, a 'Vietnam' might be completely dependent on, say, rail transport, which in 1993 air power can control totally; similarly, in a 'Bosnia', it may be persuasive to attack psychological targets, such as nationalism.

That general approach to controlling conflicts which otherwise seem intractable will be given even greater utility by the use of non-lethal weapons which will, for example, turn stored petroleum products into useless jelly without destroying refineries and tanks; and cut-off electricity without demolishing the generating or grid systems.⁵⁰

That said, the depth of hatred between the warring factions in Bosnia-Herzegovina is so deep that no attempt to intervene before the fighting had run its inevitable course may have succeeded. In the context of this paper, though, the relevant point is that Nato controlled the risk to its ground forces by deploying them only as peace-keepers, despite considerable pressure for a more active engagement.⁵¹

As a final, indicative case study of how modern air power could be used in an insurgency/guerrilla war, the Mau Mau uprising in Kenya in the early to mid-1950s provides a different set of conditions to those discussed so far. The intention here is briefly to contrast what happened in the 1950s to what might happen in the 1990s. Lest that be considered a questionable methodology, the point is reiterated that it is not uncommon for some analysts to use experiences such as those in Kenya (and Malaya) to argue that air power has little to contribute to counter-insurgency or guerrilla warfare. Reversing that approach therefore seems fair.

Air support for military and civil authorities during the Mau Mau rebellion consisted of light observation aircraft from the Kenya Police Air Wing, a squadron of RAF Lincoln bombers which dropped 1000-pound bombs, and four RAF Harvard trainers

⁴⁹ 'Farewell to Arms will prove Futile', in *The Australian*, 17/18-4-93, p 20.

⁵⁰ See Kopp, Carlo, *A Doctrine for the Use of Electromagnetic Pulse Weapons*, Unpublished Paper, Air Power Studies Centre, Canberra, 1993; and Kenney and Dugan, *Herald Tribune*.

⁵¹ 'White House Denies Combat Role: We are not going to get involved', in *The Australian*, 10-3-93.

which were fitted with one machine gun and dropped 19-pound bombs. Just how 'lessons' regarding the employment of modern air power in counter-insurgency operations can be drawn from such a motley, obsolescent force remains a mystery, yet some commentators have tried to do so.⁵²

The major difficulties with offensive air operations in Kenya were poor air-to-ground communications, inaccurate aircraft navigation, difficulty in identifying targets, inaccurate (and therefore futile) bombing raids, and aircraft noise warning guerrillas of the probable presence of government surface forces. None of these issues is relevant to 1993. Light-weight communications equipments now permit instantaneous, trans-continental information transfers. Cheap, miniaturised navigation systems like the Global Positioning System (GPS) can give both ground and air forces continuous positional information accurate to within metres.⁵³ Further, those kinds of technologies can be used in combination in many circumstances to facilitate rapid, unexpected and powerful air strikes.

The concept of 'Precision Air Support' (PAS) has been developed by the RAAF to utilise the advanced capabilities of aircraft like the F-111 and F/A-18 against tactical targets, but without the traditional difficulties of Close Air Support (namely, target identification and inaccurate weapon delivery) evident in Kenya.⁵⁴ PAS is conducted essentially using the same technique described above for the hypothetical strikes at Sarajevo, with aircraft operating from a safe distance and altitude using advanced sensors and weapons to make precise strikes.

Two constraints on PAS as it is currently applied are weather and jungle, as infra-red detection systems can be impaired by moisture and heavy foliage. One solution to both problems would be the use of Special Forces, to detect insurgents and then call in a PAS, with the air and ground units both using technologies like GPS for targeting information. Continuing research and development into ultra-wide-band synthetic aperture radar which will define and classify small targets regardless of weather offers another potential solution.⁵⁵

One last aspect of the Mau Mau uprising which warrants comment concerns the mile-wide 'no-go' zone which was established by security forces between the edge of the forests on Mount Kenya – the guerrillas' stronghold – and the African and European farming areas below. Air power was considered to have no role to play in the 'mile strip' as the zone was known: neither resupply nor bombing was conducted within its confines to any extent.⁵⁶ In the 1990s, technological progress would indicate that exactly the opposite is now the case. A cleared defensive area can be dominated by modern airborne surveillance, targeting and precision weapons capabilities, 24-hours a day, at little, if any, risk to friendly ground forces. It is for that reason that 'no fly' or

⁵² See Waters, 'The Cost of Air Support ...', passim; and Clutterbuck, in Armitage and Mason, *Air Power in the Nuclear Age*, p 68.

⁵³ Sharrett, P. et al, 'GPS Performance: an Initial Assessment', in *Navigation*, Journal of the Institute of Navigation, Spring 1992, pp 1-21.

⁵⁴ See Criss, Group Captain P.J., *Employing Smart Technology in Low Intensity Conflict*, Air Power Studies Centre, Paper No 6, Canberra, 1992.

⁵⁵ 'Swedish Developed Radar to Penetrate Foliage, Ground', in *Aviation Week and Space Technology*, January 18, 1993, pp 52-55.

⁵⁶ Waters, 'The Cost of Air Support ...', p 98.

quarantined areas enforced by aircraft have become a feature of current United Nations military actions.

CONCLUSION

The concept of low intensity conflict was developed in the 1970s in an attempt to define a wide range of political-military activities which were less intense than modern, conventional limited war, and which were expressly associated with instability in the Third World. The concept therefore precluded the use of high technology weapons systems. In the recent past, however, those types of security threats – civil wars, insurgencies, terrorism and conflict short of war – have changed in their ambit of influence and the kinds of weapons used or which may be available. They are now recognised as a phenomenon which is not restricted to the Third World, but which represents the most pressing security threat to the First World. Further, the ready availability of modern weapons has made the description 'low intensity' dangerously misleading.

Following the traumas of Vietnam and the manifest success of substituting technology for body-bags in the 1991 Gulf War, Western attitudes to military commitments generally (for either combat or peace-keeping) and concepts of war-fighting specifically have undergone fundamental change. Three points are crucial: the West enjoys a marked technological advantage over the rest of the world; advanced technology wins wars; and casualties are the West's centre of gravity. Together with the substantial reductions being imposed on defence forces in most Western states, those points are likely to see an end to the commitment of large numbers of surface forces to combat, other than in circumstances where heavy losses are improbable or vital national interests are at stake. Manpower-intensive activities will, as far as possible, be limited to operations short of war, such as peace-keeping, anti-terrorism and counter-narcotics. Thus, armies increasingly will become clean-up and occupation forces, and air forces, and to a lesser extent, navies, will provide the cutting edge for combat.