AIR POWER
and
Levels of Warfare

'This distinction between the two kinds of war is a matter of actual fact. But no less practical is the importance of another point that must be made absolutely clear, namely that war is nothing but the continuation of policy with other means.'

Clausewitz[1]

This opening statement by Clausewitz occurs in a section entitled 'Two Notes by the Author on His Plans for Revising On War'. It highlights the tacit acceptance by Clausewitz, and arguably by the majority of his contemporaries, that warfare was not something that could be conveniently lumped into a single category.[2] The juxtaposition of this seemingly simple statement with his famous utterance on war as an extension of policy emphasises the complexity not only of warfare per se, but also of the whole spectrum of national policy and international relations. Clausewitz seeks to differentiate between the sort of conflict in which the object is to 'overthrow the enemy – to render him politically helpless or militarily impotent thus forcing him to sign whatever peace we please; or merely to occupy some of his frontier districts so that we can annex them or use them for bargaining at the peace negotiations'[3] [emphasis in the original].

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This distinction between total and limited warfare has had considerable resonance for later scholars and is especially relevant today. The spectrum of conflict has, however, expanded to include terrorism (or probably more correctly, counter-terrorism), insurgency, peace keeping, peace enforcement and so forth.[4] What is arguably now more important is the recognition that what may be a regional conflict for one side could well be a war of national survival for the other; the American experience in Vietnam is a classic example of this disparity with a healthy degree of ideology added to the mix.[5] The boundaries between terrorism, insurgency and open warfare inevitably blur. For the commander of today, these difficulties are compounded by the overlap between levels as well as types of warfare. Again, the tactical level for one side may be of strategic importance for the other. Furthermore, there can be unforeseen consequences, at the strategic level, for third parties if there is spillover (especially of a humanitarian nature) from localised action. It is therefore vital that a commander intuitively understand the levels of warfare and the precise terminology appertaining to the type of warfare in which he is proposing to engage. Definitions and terminology must also be fully understood by his staff and coalition partners. The most difficult aspect of the planning process, however, is the challenge involved in analysing the situation from the perspectives of others – especially from varying cultural, religious or ideological backgrounds.

Most military strategist and practitioners are at their happiest dealing with conventional force on force scenarios in which they are pitted against a culturally compatible foe. The writings of our favourite dead German and Chinese strategists can then be dusted off and applied in suitably selective way – appropriate Clausewitzian centres of gravity can be identified and so forth. The lessons of history can be plundered on an equally selective basis and used as compelling precedents with gay abandon. Intelligence is relatively easy to target, gather and analyse; electronic and technical means are likely to prove to be perfectly adequate for the vast majority of tasks with little real need for human sources. Our doctrine – at all levels – works and we operate well within the comfort zone. Academic or conceptual debate can be limited to the balance between attritional and manoeuvrist warfare. Predictably, the danger of operating within comfort zones is over-familiarity and complacency. Worse still, the thought processes and style of analysis are not ideally suited to the vast majority of the real conflicts in which we are likely to be called upon to operate.

The need to be able to work outside the practical and cultural norms was thrown into cruel and stark focus by the tragic attacks of

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11 September 2001. The worst fears of asymmetric warfare were realised and the concomitant need to respond highlighted the difficulties and complexities. Similarly, the events themselves, and the rhetoric that followed, emphasised the need for very precise use of terminology. President George W Bush's unfortunate use of the word 'crusade' was noted in many quarters and undoubtedly presented the opposition with an information operations 'gift'. The ensuing efforts to disengage from the faux pas compounded the difficulties as it became obvious that American ambivalence to the classical use of the word was but the tip of the iceberg. Similarly, Secretary of State Colin Powell's declaration of 'war on terrorism' has the potential for unfortunate repercussions.[6] Not least of these is the risk of according the international legal benefits of the status of 'combatant' on terrorists; something that the United Kingdom government assiduously avoided over the years of fighting Irish terrorism. Academics variously challenged the validity of waging war on a technique and, more scathingly, on an adjective.[7]

The events of 11 September (or 9-11 as it is has increasingly become in American parlance) also brought into sharper focus the dangers of casual use of descriptive phrases such as 'fundamentalist Islamic terrorists' – not least because of the risk of giving offence to the huge numbers of followers of Islam (or any religion for that matter) who are not of a fundamentalist persuasion. Offence is also inevitable with regular juxtaposition of Islamic and terrorist where again it is evident that the vast majority are peace loving and would answer neither to terrorist nor freedom fighter. Being unaware of, or ambivalent towards, the risk of causing such offence does not in any way mitigate its seriousness. If anything, the sin is compounded by the inability to see events from others' perspectives.

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Seeing events through the eyes of others is an essential analytical tool that extends across the entire spectrum of human relations. It is absolutely indispensable in intelligence analysis. But it is also a considerable virtue for any commander to be able second-guess his adversary. Wellington drew attention to the need to see beyond the far side of the hill; but he also appreciated the importance of gauging enemy intentions. This task is made considerably more difficult when operating across, or outside, cultural norms. The perpetrators of the atrocities on the Pentagon and the World Trade Center were evidently aware of the likely impact of their actions and of the probable reactions. The norms against inflicting civilian casualties on such scale were irrelevant to the Al Qa'eda organisation in terms of inhibiting their actions. But they were well aware of the potential physical and psychological impression that it would leave. Their ability to gauge the impact of their actions on the target society enabled the Al Qa'eda cynically to use air power for genuine strategic effect.

Having discussed the need for precise terminology and then introduced air power into the equation, it becomes immediately evident that operations involving weapons with such devastating potential effect must be conducted with extreme care. It would, for example, be totally pointless to expend million-dollar munitions, capable of real effect, on moving rubble around a desolate landscape unless one's analysis of the potential psychological effect was absolutely accurate. Defining the likely effect

is never easy – particularly at the strategic level. In the first instance, the commander must look at our definition of strategic and then compare this with the definition likely to be used by the opponent. The likely effect or impact will be a critical factor in the target clearance process where the risk of collateral and casualties (and therefore political fallout) must be weighed against the potential gain. With air power now almost invariably the weapon of first political choice, it is vital that politicians, policy makers, the commander, his planning staff and the crews involved fully understand these complexities.

LEVELS OF WARFARE

The approach to any potential or actual conflict will inevitably be multi-dimensional. For the purposes of this paper, the conflict will be viewed in terms of a three-dimensional graph. The axes will reflect the scale of effort, the level of warfare and the nature of the conflict. Any use of armed force can then be displayed graphically. For each conflict, there will be a minimum of four such graphs. The first will be the commander's own view of the conflict; the second will be the commander's assessment of the enemy's perceptions. There will be two corresponding mirror images showing the enemy's outlook and his perception of his foe's approach. With a coalition the picture will be further complicated. The likelihood of a perfect match in these four (or more) graphs is miniscule. The resulting confusion is part of the fog of war. But that does not mean that this should be accepted fatalistically. Nor should we allow the situation to be made worse through sloppy use of terminology.

THE IMPORTANCE OF THE LEVELS OF WARFARE

The levels of warfare provide a useful framework within which we analyse political and military activity. They also provide a workable structure on which to build the command and control network.[8] Depending on the nature of the conflict, the formal levels of warfare can be seen as anything from boon to irrelevance. They overlap in all forms of military operation with labels such as 'the tactical general' and the 'strategic corporal' adding to the confusion.[9] With smaller scale operations, however, the existence of levels of warfare can act as a safeguard against the potential for meddling that is increasingly prevalent as information technology and networks allow more players access to the fight. NATO doctrine acknowledges four discrete levels of warfare and the United Kingdom has based its doctrine thereon.[10] These encompass the Grand Strategic, the Military Strategic, the Operational and the Tactical.

THE STRATEGIC LEVEL OF WAR

The strategic level of war can be considered to be the most complex to discuss – not least because it is the furthest from the comfort zone of tactical level, or technological, warfare. For the purposes of this paper, both of the strategic levels will be considered together. The interdependent nature of these levels makes this a reasonable proposition as does the importance of the use of air power at this level of warfare.

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The Grand Strategic level of warfare encompasses the full range of issues likely to be considered at the most senior levels (prime ministers, presidents and their most senior ministers). Maintenance of Alliance security, territorial integrity, serious humanitarian disasters and, most recently, the fight against international terrorism are all likely reasons for summits at this level. Historical examples abound such as the discussions between Roosevelt, Churchill and Stalin at Yalta. Contemporary examples include Alliance discussion on the need to tackle Kosovo in 1999 and the coalition against international terrorism. Grand strategy does not just include military action; economic and political power must also be integrated in order that synergy results. The key concept is that all efforts must be integrated. Those familiar with the conduct of military operations know only too well of the problems in orchestrating all elements of the air line of operations let alone across all components (land, maritime, logistical, special forces and so forth). To do so across the complete spectrum of the strategic level is considerably more difficult for several reasons. The first of these is the need for intellectual horsepower in grasping the diverse strands without recourse to meddling in detail. The second problem is that few states have a functioning co-ordination mechanism that has been tested or exercised (unlike the military who do so as a matter of course). Third, military doctrine, training and conceptual thinking equips future commanders with some background for the forthcoming conflict. Senior officials in other organisations are often more focussed on low level, routine peacetime functions.[11] Finally, no matter the seriousness of the crisis, human nature is such that individuals will always seek to better their own position, or that of their organisation, at the expense of others.[12]

British Defence Doctrine correctly identifies economic, political and military force as being the three principal instruments of national power. But it must also be remembered that power does not operate in a vacuum. Those charged with the formulation of grand strategy need also to be aware of the lower level political, social and moral factors at work in their domestic environments and in the target communities.[13] This can be difficult enough with one country, but the complications multiply several-fold across a coalition. These areas must be further expanded to include intellectual, psychological and cultural issues; differing approaches and interpretations of international law should be considered within the intellectual framework. Ethical issues may seem to be self-evident in what appears to be the relief of major humanitarian distress or the fight against international terrorism. But the shattering of over 50 years of international recognition of the sanctity of the state within the United Nations Charter was, for some, too great a price to pay for action in Kosovo. Likewise conviction that your own side has the moral right on its side may be feasible with Hitler as one's foe,[14] but is less convincing when the spectre of Christianity against Islam comes under consideration. At first sight all of

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Intelligence can, and indeed must, be considered at every level of warfare. Funding for intelligence is, however, sanctioned at the highest levels of government as are the targeting priorities. Responsibility for so-called 'intelligence failures' can often be laid at this door. Likewise decisions to share material and assessments are matters of grand strategic importance. The balance of risk in compromising sources as against convincing domestic and coalition audiences is again a matter for the highest level of decision-making. The most stunning military campaign will be fatally flawed – or irrelevant – if the high-level decision-making is based on poor strategic intelligence: arguably the political and economic dimensions are even more dependent on sound intelligence collection and assessment.

As the almost invariable weapon of first political choice, air power is of vital importance at the grand strategic level. The historical precedent for this has an immaculate pedigree with Churchill regularly using the efforts – and sacrifices – of Bomber Command as evidence to Stalin that there was indeed a second front during the dark days of 1942-43.[15] Whilst Stalin was characteristically immune to concerns over the Command's casualties, he was certainly appreciative of the damage wrought and avidly awaited updates of the photographic diaries. Irrespective of the actual damage to the German strategic war efforts, it is worth noting the strategic effect on allies. Grand strategy encompassing as it does the economic and political (domestic and international) means that air power can have strategic effect against these mechanisms of state power. Allied bombing had considerable impact on the German war economy and on the internal political scene. Goering's failure (or more correctly the Luftwaffe under his direction and exacerbated by Hitler's meddling) to stem the Bomber tide led directly to his eclipse by Goebbels.[16]

The use of air power to satisfy grand strategic level appetites was immediately evident at the start of Operation Allied Force and the air operations over Serbia in 1999. Here it was abundantly evident that the use of air power was the only military force that the NATO Alliance was prepared to use and then only for a short period of time. The fact that NATO resilience was increased by the wave of ethnic cleansing that swept over Kosovo after the start of the campaign should not detract from the conduct of the air war or, more importantly, its overall success. The early use of air power over Afghanistan was both logical and essential for the conduct of land operations within normal doctrinal boundaries and in the Robert A Pape, *Bombing to Win* sense of coercion.[17] But it also played an important role at the grand strategic level in satisfying demands for action within the constraints of maintaining the international coalition.

Military strategy is that part of grand strategy where military force is introduced. This, traditionally, is the province of the Chiefs of Staff. In Cabinet types of government they reflect the military view to the prime minister and then implement the chosen course of action – usually under the direction of the appropriate minister. In practical terms, military strategy exists permanently; the nature

of modern conflict is such that we cannot rely on gathering men and matériel at the last moment. It may seem self-evident that the days of cutting yew for longbows and raising levies have long gone. But the outbreak of World War I saw the United Kingdom configured for the wrong sort of conflict and preparations for the start of World War II was a close-run thing. Military strategy therefore encompasses recruitment, education, training, armament, doctrine formulation and so forth,[18] as well as the military response to a crisis.

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The inter-relationship between strategy, policy and doctrine is potentially vexatious, with considerable scope for divisive turf wars. For the purposes of this paper, doctrine is defined as the '*fundamental principles by which military forces guide their actions in support of objectives*'.[19] Policy is the nation's response to the prevailing external environment.[20] This is constantly changing. The environment may be the long-term situation such as the backdrop to the Strategic Defence Review. It may equally be the response to a given crisis. Policy effectively enunciates what will be done (or attempted); doctrine provides the fundamental principles suggesting how it could (or should, depending on the degree of prescription) be done. The formulation of strategy is the fusion of these fundamental principles with the policy demands of the government or coalition. The resulting strategy will not be fixed; it must reflect the changes in the external environment. In an ideal functioning democracy there should be no question whatsoever about which has primacy. The government will make policy based on best advice which will invariably be consistent with well formed doctrine: flawless strategy will result.

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Strategy is therefore what must be done to achieve either national or grand strategic coalition objectives. It is necessarily concerned with the military force to be utilised, the resources allocated and the constraints to be applied.[21] Air power will feature in virtually every conceivable deployment of military force from humanitarian relief to full-scale conflict. The key tenets of air power – ubiquity, flexibility, rapidity and so forth – will ensure that debate will ensue at the military strategic level whether this be short or long term. In the formulation of defence policy – in most nations – some degree of air power will be seen as a necessary part of a balanced force. As part of this long term planning, consideration will be given to the capabilities, readiness states and sustainability of the force rather than just the platforms and their associated weapons systems. In response to a specific crisis, the operational commander will be allocated resources and will be given guidance from staffs at the military strategic level. There is clearly scope for friction in this interaction with perceptions that 'soldiers in suits' do not understand the practicalities of the operation. The reality, however, is that those at the military strategic level are aware of the political nuances at national and international levels.

Decisions on allocation of air assets, and more importantly their targeting are often taken at the military strategic level. Again the pedigree for this is extensive. Churchill was never slow to direct Bomber Command, not only on the general priorities (oil, industry etc), but also on specific towns. After he had tasked the Air Ministry with attacks on cities in East Germany in January 1945, Churchill was less than convinced that his Secretary of State for Air was prosecuting the targets with due vigour. His blistering response is worthy of quotation in full:

> *'I did not ask you last night about plans for harrying the German retreat from Breslau. On the contrary, I asked whether Berlin and no doubt other large cities in East Germany, should not now be considered especially attractive targets. I am glad that this is 'under examination'. Pray report to me tomorrow what is going to be done.'*[22]

The American experience with Vietnam highlights even more vividly the scope for politicians to become seriously involved at the tactical, let alone operational level of war instead of remaining detached. Clodfelter describes, in considerable detail, the process that Lyndon Johnson used with his infamous 'Tuesday luncheons' at which targeting priorities and individual targets were chosen; air commanders were only ever given part of the story and confusion was the order of the day.[23] In more recent operations, the availability of data link communications allows politicians, and commanders, an unprecedented opportunity to play at the tactical level.

Any discussion on air power at the strategic level must also encompass the debate on the use of air power for strategic effect. This phrase is used quite specifically to separate it from previous concepts of strategic bombing.[24] The critical point is that the adjective 'strategic' must be applied to the effect that is sought – not the range of the aircraft, the weapons system or its warhead.

British Air Power Doctrine recognizes a single centre of gravity at the strategic and operational levels, but not in the tactical arena (unlike other forces that accept a number of centres at each of the higher levels). This effect could theoretically be created by independent and distinct use of air power alone, or, more likely, it will be part of joint or multi-national activity. Air operations for strategic effect are aimed to destroy or disrupt the defined strategic centre of gravity of an opponent.25 Considerable care must be taken in the selection of the centre of gravity. This may seem self-evident, but severe consequences follow if it is wrongly identified, destroyed and the anticipated benefits do not accrue. To achieve the desired effect, the centre of gravity must be analysed from the perspective of the enemy commander; there is no point whatsoever in viewing prospective target sets through western centric eyes, or, even worse, on the basis that we have weapons available that are suited to – say bridges or power stations. It is worth emphasising at this point that the effect sought by the use of air power may not necessarily be the physical destruction of the chosen target set. Indeed, the centre of gravity may not be the enemy's army

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(which Clausewitz saw as being the natural choice); it may be as ephemeral as a despot's ability to further his family's fortunes and influence – as was probably the case with Milosevic. Warden has suggested that attacking the leadership of a foe could lead to strategic paralysis, thereby possibly obviating the need for attacks on fielded forces.[26] Air assets other than attack aircraft may, however, be involved in strategic air operations. Activities such as supervision of a no-fly zone or the provision of relief supplies may have strategic effect, depending on the circumstances prevailing at the time.

The objective of strategic air operations, consistent with the tenets of manoeuvre warfare, is to shatter the enemy's cohesion and will – not just to destroy men and materiel. Target sets will have been selected, as part of the estimate process, for their strategic relevance and may include the machinery of government, military forces, infrastructure and so forth.[27] Given the flexibility of air power, other targets at the operational and tactical levels may be attacked in parallel with, or subsequent to, strategic operations. The target sets at this high level of operations, and the weapons proposed, will inevitably excite considerable political, legal and humanitarian interest in the highest spheres of governmental machinery. Whilst the military preference is for the espousal of a clear political aim followed by centralised planning and then decentralised execution, it is entirely proper in a democratically accountable structure that political oversight is maintained. This is bound to be most appropriate, and most contentious, at the strategic level. The possible necessity of maintaining coalition solidarity may make this aspect of an operation or campaign particularly fraught.

A more lengthy exposition on the use of strategic air power is clearly beyond the scope of this paper. The key tenets, however, are that the term 'strategic' applies to the effect – not the platform. Second, the use of air power for strategic effect is not about air power doing it alone. Third, the effects sought must be seen from the enemy perspective – as Al Qa'eda proved on 11 September.

THE OPERATIONAL LEVEL

The operational level of war is that at which campaigns are planned and conducted by the duly appointed Joint Commander and then the Joint Task Force Commander when deployed.[28] Again it is incumbent on the JTFC, and his Component Commanders, to maintain links with the strategic level and to keep an overview of the whole theatre of operations. They must also refrain from meddling at the tactical level. Some have argued that there is little scope in modern warfare for this level of warfare. The basic premise is that modern communications allow a military strategic level commander to direct operations at the tactical level without the intervening layer. Part of the argument is based on the likelihood that we are unlikely to see the multi-theatre operations that were evident in World War II. It has also been suggested that the extra layer is little more than an encumbrance, adding little of value. Liddell-Hart referred to the gap between tactics and strategy as 'grand tactics'.[29] To a large extent, the terminology is not relevant as there is a real void between the levels either side. More importantly, the use of the operational level of war allows one delegated commander the scope to view his theatre of conflict at one sweep. He has certain geographic bounds to consider; but these must be logically chosen both in terms of his forces and those of the enemy. There is little point in constraining a commander artificially when his foe has free reign to move around the boundaries necessitating vexatious liaison with neighbouring allies.[30]

The operational level of war also allows the commander – from whichever environment (land, sea or air) – to apply operational art. This encompasses the concept of being able to co-ordinate manoeuvre warfare at the theatre level. This in turn facilitates a genuine manoeuvrist approach to the fight. Manoeuvre is straight-forward and allows for movement rather than static lines. The manoeuvrist approach is of a more conceptual nature in which the commander seeks to shatter cohesion and will (as above with the use of air power for strategic effect). Significant features obviously include momentum, shock action, tempo and surprise. The emphasis is on causing disruption through the application of pressure on points where it is unacceptable to the foe. The manoeuvrist approach is not a substitute for attritional warfare; some degree of killing and destruction is inevitable and indeed desirable (politically incorrect that this may sound). But it seeks to prevent the static slaughter that epitomised the so-called Great War.[31] There is no requirement to hold ground for its own sake. The manoeuvrist approach is immediately attractive to the numerically weaker side and this is to some extent a reflection of its introduction into British Doctrine during the 1980s in Germany. Operational art extends beyond the manoeuvrist approach; but it is one technique available to the operational commander in his quest to meet strategic goals.

A key means of causing disruption is to break, or get inside, the enemy's OODA loop [Observe, Orientate, Decide and Act][32] thus achieving a superior operational tempo.[33] Degradation of the enemy command system – at the same time as protection of one's own – can be achieved in a number of ways including offensive information operations, Israeli-style assassination or physical destruction.

It can be seen from this discussion on the operational level of war, operational art and the manoeuvrist approach that air power is the ideal means of prosecution.[34] The characteristics of range, flexibility and ubiquity are tailor-made for this type of warfare. Furthermore, the gathering and dissemination of information are clearly tasks that can be easily carried out by air platforms. First attempts to destroy the will of the enemy to continue the fight may be unsuccessful and attrition may be necessary. Air-delivered fire power not only has the ability to destroy assets physically; it is also a most useful weapon in the psychological battle where the unheralded application of death and destruction can help to undermine will.[35] This is a vital step on the road to shattering cohesion.

A significant, indeed vital, contribution that air power can make at theatre, or operational, level is control of the air. This may be air parity as achieved over Dunkirk enabling the evacuation to proceed; or it may be up to air supremacy. The sentiment that if control of the air is lost, the battle follows very shortly thereafter has been

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widely expressed. It was implicit in the writings of many of the inter-war air power theorists; World War II generals such as Montgomery and Rommel were adamant in their views as to its necessity. Conflict in Korea, Vietnam, the Gulf and most recently over Afghanistan merely served to accentuate the vital nature of control of the air. The reality is that this must be fought for, won and then maintained. Control of the air is essential – not an optional extra. No commander is likely to be unaware of the benefits of being able to operate free from interference.

THE TACTICAL LEVEL

The tactical level of warfare can extend from hand-to-hand fighting through to manoeuvre at corps level. The scale is relative; the important concept is that this is where the fighting takes place. It involves the disposition of forces and their direct support. It is important to remember that this is the core business of the component commanders and their subordinates – not for more senior commanders who would wish to descend to their comfort zone in the manner of Marshal Bazaine in the Franco-Prussian War.[36]

From an air power perspective, it is immediately self-evident that all aspects of tactical conflict lend themselves to the application of firepower from the third dimension. Again the platform and weapon system are not critical – A B2 can be used for tactical effect. B52s have been used on a regular basis for attacks on trench lines and so forth.

THE NATURE OF WARFARE – TERRORISM

The third axis outlined above describes the type of conflict, ranging from terrorism through insurgency to full-scale warfare. It must be recalled at this stage that what may be terrorism to one side may be at a different level to the perpetrators. Most conventional terrorist movements exist because of a deep-rooted political grievance. This may be based on demands for self-determination or similar nationalist causes; the Irish Republican Army (in its various guises) and the Basque separatist movements are obvious examples of this genre. There may also be an underlying civil rights movement that has not found satisfaction in the democratic process. Again this was partly behind the resurgence of the Republican movement in Northern Ireland in the late-1960s which resulted in the emergence of the Provisional IRA.[37] With all groups, there is almost invariably a perception of having a just cause. The only exception is where an anarchist group is intent on causing destruction for its own sake; their rationale is based on an interpretation of Sartre philosophy in which a new society can only emerge from the ashes of the old decadence.[38] It is debatable whether groups such as Al Qa'eda and Hamas fall into the first category, albeit with huge scope to their political aims. It has been suggested that they are in a new category of their own.

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Terrorism often finds its roots in poverty and unemployment where the political agenda finds a base level of popular support among the disenfranchised or those with grievances. The terrorist group takes this as being a de facto mandate. The more sophisticated movements extend this by establishing militant political groups to express their propaganda message from a semi-legitimate soapbox. Sinn Fein and Heri Batasuna (the front for ETA in Spain) are again the obvious examples. It is self-evident that the terrorist movement is dependent on the population for initial recruitment, whether this be from the hamlets of Afghanistan or the Falls Road in Belfast. But the terrorist groups will then usually operate autonomously not least for security reasons. The terrorist cell can obviously be deployed to operate well away from the original source of grievance as the Provisional IRA did when conducting their continental campaign against United Kingdom armed forces' targets in Germany and the Netherlands in the late-1980s. In addition to facilitating security, the cellular nature also allows for real mission command to be exercised with what needs to be done pre-briefed, but not the minutiae of exactly how to do it. Communications can then be minimised.

State-sponsored terrorism brings its own challenges in that the root cause of the conflict will almost certainly be between states rather than intra-state tensions. The rifts between states may be religious, ideological, cultural, economic, political or an unhealthy mix between them all. If left unchecked there is a risk of alienation and radicalisation. In this case the Clash of Civilizations suggested by Huntingdon could become a reality.[39] The emergence of groups such as Al Qa'eda show that terrorism can be mounted – in classical cellular fashion – from a variety of host states, but without necessarily their cognisance. All that is needed is finance and communications.

Countering state-sponsored terrorism can be attempted either through action on the sponsor, or on the terrorists themselves. The United States Operation Eldorado Canyon was a classic use of air power against Libya and appears to have been successful insofar as the coercion of Gadaffi was concerned. Evidence suggests that state-sponsored terrorism from organisations based in Libya was at least suspended for several months after the bombing. Action against the perpetrators of the Lockerbie bombing was an effective mix of intelligence and police operations culminating in a formal judicial trial.

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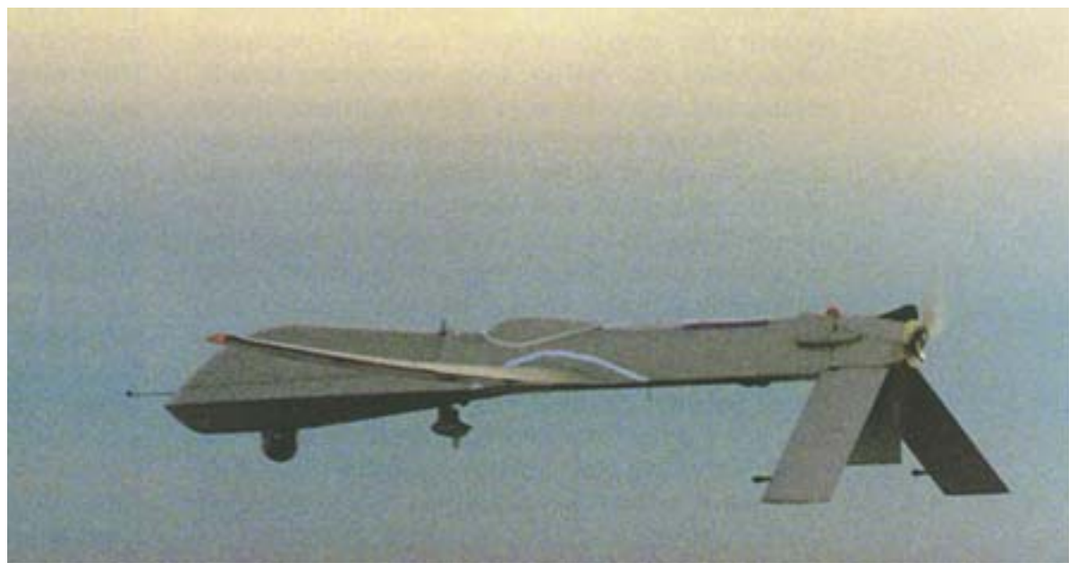
Terrorism can be countered in a number of ways with the emphasis usually being placed on civil police action, albeit with military support where necessary. The terrorists' centre of gravity may often prove to be the risk of marginalisation. Removal of the source of grievance, whether this be poverty, unemployment or the reduction of the relevance of nationalist issues (as is arguably happening in Ireland with the removal of many barriers due to EU membership), will help to undermine the popular support for the terrorists. These processes are inevitably long term – especially where there is a deep-seated religious element to the conflict. Nevertheless, they do eventually work and must be allowed to develop. 'Irreconcilable' is not an acceptable word in the counter-terrorism lexicon. Similarly, it is improbable that dialogue with unsavoury characters will be permanently discounted – officials from Sinn Fein are now in the Northern Ireland Assembly and former 'terrorists' rose to positions of high rank in Israel.

The public relations element of the fight against terrorism is also important with considerable emphasis on not making matters worse. Ideally, the counter-terrorist strategy should aim to eliminate active support for the group and, especially in third countries or neutral areas, to highlight their activities and presence. More active counters include positive attention on a series of lines of operation. Sources of funding and supplies of materiel are obvious examples. Action can also be taken to suborn and infiltrate groups as well as to disrupt operations. Security of potential targets is vital. All counter-terrorism depends on good intelligence with human and technical sources necessary.

Air power can play a vital role in the collection of intelligence using the complete spectrum of sensors to locate personnel, matériel and communications nodes. The last of these can be important where counter-terrorist operations are seeking to act inside the enemy OODA loop. This is challenging when the foe is little more than a youth with a Kalashnikov. But difficulty is the mother of invention and sophisticated systems have been brought into service in a number of nations. Acting close to real-time also brings command and control challenges with political authority to engage either being delegated or passed through suitable communications systems; Israel's battle against Palestinian terrorism, with air-delivered ordnance being used to decapitate senior operatives or leaders. Air power may also provide an invaluable service in the combat support arena with mobility a high priority. It may also be that air supply for humanitarian operations will help to reduce support for terrorists, or indeed insurgents.



Air power can play a vital role in the collection of intelligence using the complete spectrum of sensors to locate personnel, matériel and communications nodes

14 INSURGENCY

Insurgency involves a campaign waged by a minority group to gain political power in its own state through a combination of conventional military action, subversion and, classically, propaganda. Counter-insurgency, at its simplest, is the action taken to defeat the threat. A key difference between terrorism and insurgency is the requirement in the latter to win over the middle ground of the population between the insurgents on one hand and the government on the other. Victory in this contest brings popular support and democratic legitimacy. In reality, neither the government nor the insurgents may gain true legitimacy as the respective campaigns may be based on intimidation, fear and oppression – otherwise the ballot-box would have rendered the bullet unnecessary. Britain has considerable experience in this field have fought counter-insurgency campaigns in Palestine (1945-48), Aden (1964-67), Malaya (1948-60) and Dhofar (1970-75); the latter two were considerably more successful than the two former operations.

According to Sir Robert Thompson, there are a number of key principles necessary to counter insurgency.[40] These include the need for the government to function in accordance with the law, and in furtherance of a free democratic society; the counter-insurgency plan must be part of a greater concept for removing the sources of injustice and subversion; and that the government must secure its own bases as a matter of priority. UK doctrine encompasses these priorities along with the advice iterated by General Sir Frank Kitson in Low Intensity Operations regarding the primacy of intelligence.[41] The shorthand for these operations has become ‘hearts and minds’.

The key area is first and foremost political primacy with a concomitant need for real co-ordination within the government hierarchy and machinery. This is particularly relevant if the insurgents are supported by a third party government that must not be aggravated (as was the case in Vietnam). As has been stated, intelligence is of the utmost importance. The insurgents must then be separated from the ‘middle ground’ either physically or through ‘hearts and minds’ information operations; these may also involve provision of real support at village level as happened in Malaya. If these actions are carried out consistently and effectively, the aim is to isolate and then neutralise the insurgent. There is considerable scope for air power to operate in every phase of these tasks ranging from combat support air operations, through direct air operations to interdiction; Kitson warns, in classic army style, that the commander must beware going from place to place by air and not absorbing the ‘feel’ of the scene.42 His warnings have equal validity at the strategic level in that the use of air alone will not get to the ‘hearts and minds’ other than possibly through intimidation and this may be counter-productive.

FORCE ON FORCE CONFLICT – SOME CONCLUSIONS

Straightforward force on force conflict is, relatively speaking, the realm of comfort zone operations. The vast amount of doctrine, strategy, tactics and training can be brought to the task. Clear political objectives can be set, the politicians brushed to one side and the generals can revel in what they have been waiting for all of their careers. It is therefore inevitable that each of these types of warfare will see a tendency for their scale to be inflated. Counter-terrorism will approach the scale of counter-insurgency and so forth. And yet for each quite specific style of warfare the fundamentals of levels of warfare are equally relevant. The critical factor is that relevant and achievable policy should be compatible with what the situation demands. Vibrant, living doctrine must then be applied: coherent, credible strategy will result. What must be avoided, at all costs, is a scattergun approach based on 'we bomb bridges because we can' style of logic. Intelligence and information – and the critical analysis thereof – are vital in all forms, and at all levels, of warfare. The need to bring coalition partners along in an attempt to counter international terrorism or quell an insurgency will inevitably complicate matters, but must of necessity be done.

The debate on levels of warfare and types of warfare will continue. It is important that the debate focuses on substantive issues not just the labels. The reality is that the levels of warfare bring some clarity to the planning process and their inclusion in the realms of doctrine can only serve to aid understanding. It is, however, equally important to view each potential conflict from each corner of the set of graphs so that the contest is not just seen from one's own perspective. Terrorist to freedom fighter is relatively simple; limited conflict from one perspective does not chime easily with a fight for the birth of a nation.

NOTES

1 Carl von Clausewitz, *On War*, Edited and translated by Michael Howard and Peter Paret, Princeton University Press, Princeton NJ, 1976, page 69.

2 Michael Howard, *Clausewitz*, Oxford University Press, Oxford, 1983, page 47.

3 Clausewitz, *ibid*, page 69.

4 See chapter 1 of AP 3000, *British Air Power Doctrine*, 3rd Edition, HMSO, 2000. This covers the nature of war and armed conflict.

5 See, for example Mark Clodfelter, *The Limits of Air Power; the American Bombing of North Vietnam*, Free Press New York, 1989 and Harry G Summers, *On Strategy: A Critical Analysis of the Vietnam War*, Presidio Press, Novato CA, 1982.

6 See Sir Michael Howard's outstanding analysis delivered at the Royal United Services Institute/ Guardian Conference held on 30 October 2001. Full text available, *Mistake to declare this a war* on http://www.thisislondon..c…/html?in_review_id=470295&in_review_text_id+42215.

7 Sir Michael Howard, *Mistake to declare this a war*, ibid.

8 See Joint Warfare Publication 0-01, *British Defence Doctrine*, second edition, 2001.

9 These refer to the evident penchant for politicians and senior officers to meddle in comfort zone detail. On the other hand the actions of a corporal in charge of a small team can have serious strategic consequences – especially under the eyes of the media.

10 BDD, ibid, page 1-2.

11 This is not new. Harris, in characteristic fashion, when he was DCAS in the Air Ministry challenged a civil servant to explain 'what aspect of the war effort he was retarding today'. Probert, *Bomber Harris: His Life and Times*, Greenhill Books, London, 2001, page 201. Interestingly Sir John Keegan also picked on this quotation in his *Daily Telegraph* review of Probert's book.

12 This again is not new. One need only look at the conflict between ministries in World War II and between commanders and the Air Ministry (e.g. Dowding and Harris).

13 Colin S Gray, *Modern Strategy*, Oxford University Press, Oxford, page 23 and Michael Howard, 'The Forgotten Dimensions of Strategy', *Foreign Affairs*, 57(1979), 976-86.

14 Richard Overy, *Why the Allies Won*, Pimlico, London, 1995, page 312. Overy contends that 'Whatever the rights and wrongs of the Allied cause, the belief that they fought on the side of righteousness equipped them powerful moral argument'. Gray is somewhat sceptical of this; Colin S Gray, *Modern Strategy*, page 31.

15 See Henry Probert, *Bomber Harris*, pages 146-147 and 267.

16 Richard Overy, *The Air War 1939-1945*, Stein and Day, New York, 1981, page 156.

17 Robert A Pape, *Bombing to Win: Air Power and Coercion in War*, Cornell, Ithaca, 1996.

18 As was evident in the Strategic Defence Review. We now take this work for granted, but it highlights the lacuna that preceded its formulation.

19 Standard NATO definition reiterated in BDD page 1-1.

20 BDD, ibid, 1-5.

21 AP 3000, ibid, 1.1.2.

22 Webster and Frankland, *ibid*, page 103.

23 Clodfelter, *The Limits of Air Power*, pages 120-121.

24 See AP 3000, Chapter 6 and many journal articles. For example: Mark J Conversino, 'The Changed Nature of Strategic Air Attack', *Parameters*, Winter 1997-98, pages 28-41; Major Stephen T Ganyard, USMC, 'Strategic Air Power Didn't Work', *Proceedings*, August 1995; Jeffrey Record, 'The Never-Ending Bomber Debate, *Strategic Review*, Fall 1995.

25 Ibid, page 2.6.1.

26 John A Warden III, *The Air Campaign*, (New York: toExcel), 1998; the original version was first published in 1989 and was highly influential in the Gulf War air campaign.

27 Conversino, 'The Changed Nature of Strategic Air Attack', page 36.

28 BDD, ibid, page 1-2.

29 Discussed further by Edward N. Luttwak, 'The Operational Level of War', *International Security*, Winter 1980-81, pages 61-79.

30 Ironically Northern and Southern Watches in Iraq come under different CinCs – CENTCOM and EUCOM.

31 This view is not strictly accurate. It could very easily be argued that a sizeable amount of attrition was essential in trench warfare exactly to shatter cohesion and will when manoeuvre was impossible. See Gary Sheffield, *Forgotten Victory: The First World War Myths and Reality*, Headline, London, 2001.

32 First conceptualised by John Boyd, this concept of acting more quickly than the enemy has been adopted into the doctrine of many fighting forces. For a full review of his life and works, see Grant T Hammond, *Mind of War, John Boyd and American Security*, Smithsonian, Washington, 2001.

33 BDD, ibid, page 3-5. AP3000 page 2.4.2.

34 Again the literature is voluminous. See for example, General Charles L Donnelly Jr, USAF Retd, 'A Theater-Level View of Air Power, *Air Power Journal*, Summer 1987, pages 3-8; Lt Gen Bradley C Hosmer, 'American Air Power and Grand Tactics', *Air Power Journal*, Summer 1987, pages 9-14.

35 See Andrew Lambert, *The Psychology of Air Power*, RUSI Whitehall Papers, 1994.

36 Baziane was the Commander of the French forces assembled against the Prussian Army. He galloped from end of the battlefield to the other variously pointing cannons, leading cavalry skirmishes and encouraging his troops. The point being that he occupied his time with 'activity for its own sake' neglecting the more proper affairs of a C-in-C.

37 The literature on this subject is inevitably voluminous. See, for example, Caroline Kennedy-Pipe, *The Origins of the Present Troubles in Northern Ireland*, Longman, London, 1997, chapters 1 and 2. See also Patrick Bishop and Eamonn Malle, *The Provisional IRA*, Corgi, London 1988 and chapter 7 of Neil Collins and Frank McCann, *Irish Politics Today*, Manchester University Press, Manchester, 1989.

38 See Chapter 14 of Richard Clutterbuck, *Protest and the Urban Guerrilla*, Cassell, London, 1973.

39 Samuel P Huntingdon, *The Clash of Civilizations and the Remaking of World Order*, Simon & Schuster, London 1997.

40 Sir Robert Thompson, *Defeating Communist Insurgency*, published in 1966.

41 [General Sir] Frank Kitson, *Low Intensity Operations; Subversion, Insurgency and Peacekeeping*, Faber and Faber, London, 1971

42 Kitson, ibid, pages 137-139.