The Journal of
Military Operations

Discussions On The Conduct of War

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A Note From The Editor

Welcome to the 4th edition of Military Operations.

There are, broadly, two main issues in the study of land warfare. The first is something like 'how should armies apply violence in support of the objectives of the nation or state?' The second is more like 'how should land forces best commit violence to achieve their given mission?'

Question One has much to do with strategy, and hence the subject of Military Operations' sister publication, Infinity Journal. However, where it concerns the linkage of acts of violence at the tactical level to strategic objectives, it becomes a matter of the operational level of war. Military Operations has previously published two insightful articles (by Justin Kelly and William Owen) which question the necessity of, and justification for, a discrete operational level. In this edition, John Kiszely acknowledges many of their observations and yet makes a highly cogent case as to why it is necessary. We should remember that military thought is entirely a human artefact; there is no God-given reason for the existence of an operational level. Pragmatically, if it is useful we can choose to use it in the way we wish. Institutionally, however, it may fall into the category which General Fuller had in mind when he remarked that the only thing harder to get a new idea into generals' heads was to get an old idea out. It does seem that this subject will continue to occupy the pages of Military Operations, and other publications, for some time to come.

Question Two is more familiar ground for Military Operations. It is, broadly, the area of tactics. We feature three quite different articles in that area in this edition.

Kason Fark's piece on adapting a US armoured battalion for urban operations in COIN is a welcome piece of first-hand experience, committed to paper and brought to life. It describes some of the real problems and the solutions which were used. It is definitely the perspective of someone who was there, with his boots on the ground. Military Operations is especially keen to bring that sort of experience to a wider audience. It is, perhaps, grist to the mill for service in-house journals; but where else do we see it?

Peter Macdonald's article on the Rhodesian Civil War takes a broader and more historical approach. It considers a relatively minor, generally forgotten conflict which took place over 30 years ago. Force levels were low, and the ratio of force to space was extremely low. The insurgents had virtually no heavy weapons, but prevailed in the long run. Yet there are definitely issues relevant today. Once again, the article shows the benefit of studying military history in breadth and depth.

Leo Murray's approach is very different. The author is a highly experienced military psychologist. The ultimate goal of much military thought should include an understanding of how and why acts of violence bring about the effects they do; as well as how best to use those effects to achieve the mission (our Question Two). The answer to the 'how' and the 'why' are deeply rooted in human behaviour, and that is the province of the psychologist. To date, armed forces have largely failed to deploy psychological research to gain that understanding. Anybody who really wants to understand what really happens on a battlefield should pay particular attention to Leo Murray's article, and read his recently-published book.

Land warfare is generally about the use of violence. Murray's article describes one area where the threat of violence is an important aspect of its effectiveness. Anna Maria Brudenell's article looks at the manipulation of threat more generally. Can we improve the way we threaten or coerce adversaries to get them to do our will, using tools of violence and other aspects of persuasion? The approach which Dr Brudenell describes seems to have application at the operational and strategic levels, but is sited very much in a tactical setting here.

The Editor of Military Operations is not exempt from peer review. I can (and occasionally do) express my own opinions in the Editorial; that is an editor's privilege. However, reading articles submitted for publication sometimes prompt ideas which might deserve an audience; but which certainly demand to be reviewed by my colleagues (just like everything else we publish). The final article in this Edition describes a collection of such thoughts. They are all prompted by articles in previous editions.

To date Military Operations has published 24 articles. Just over half were commissioned. The rest were submitted by readers. We have declined to publish very few. Most of them were very good articles which didn't discuss land warfare, so they were simply ruled 'out of scope'. We know that thousands of people read Military Operations, yet to date just over a dozen of you have written articles.

Articles are, literally, the lifeblood of a journal. Without articles we have nothing to publish. It is impossible to believe that thousands of readers have nothing to say and nothing to contribute. Military Operations provides its articles to you for nothing. Is it too much to ask you to capture that bright idea, that piece of first-hand experience, or that insight, and share it with us?

The six articles in this edition were submitted by a retired general and a retired lieutenant colonel; two retired soldiers; a scientist and an academic. Other than serving officers and soldiers, that is fairly typical of both those who have contributed to Military Operations and those who read it. In other words, our writers are people just like you.

If we don't receive articles, we won't be able to publish Military Operations. So it's up to you.

I look forward to hearing from you.

Jim Storr
Editor, Military Operations
July 2013

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Where To For 'The Operational'? An Answer.

John Kiszely

Military Operations Issue 3 (Winter 2012) contained an article by Justin Kelly entitled 'Where To For 'The Operational'?'[i] In it he questioned the utility of operational art and the operational level of war. This article provides a response.

In short, Justin Kelly argues that: the operational level detrimentally 'distances campaign planning from strategy'; 'modern communications have made connection with the strategic and tactical levels so intimate that the need for the connecting function during execution is no longer apparent'; the operational level exists in 'the realm of pure abstraction' and is 'a jumble of loose language'; and operational art is 'an empty abstraction that is impossible to teach.' He concludes that if in some future war there is a perceived need for operational art, it will require a unique, situation-dependant approach, and that 'Until then, we should probably simply let it go.' In a previous article in *Military Operations*, William Owen contended in similar vein that the operational level is ''a false and unneeded link between strategy and tactics…a fallacy built on the failure to understand historical teaching on strategy and tactics… [and] utterly redundant', concluding that 'it would appear that the operational level of war is just an odd articulation of the need to be good at tactics.'[ii]

The two authors are not alone in their scepticism of the operational level and operational art. Nor should this really be surprising. Take 'operational art' - a term and concept almost unheard of in the West until the 1970s, and a literal translation of the Russian words, *operativnoe iskustvo*. In the English language there are at least nine dictionary definitions of each of the words 'operation' and 'art'. [iii] 'Operational' has several completely different meanings. Hence, there is no shortage of scope for confusion and misunderstanding. 'Operational art' is not a helpful term. The understanding of the subject has also not been helped by the overblown evangelism of some protagonists. They suggest that operational art is something close to being the philosopher's stone – able to turn base metal into gold – and that the operational level is the master of strategy rather than, as should be the case, its servant. And too often discussants have failed to define their terms, adding to the 'jumble of loose language'.

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So to avoid the latter charge, and to prevent debate becoming just the vacuous expenditure of much time and energy, it is necessary to start by defining our terms. For simplicity and consistency, I take the definitions from current British Defence Doctrine.[iv]

- Operational Art is 'the orchestration of a campaign in concert with other agencies, involved in converting strategic objectives into tactical activity in order to achieve a desired outcome.'

- The Operational Level is 'the level of warfare at which campaigns are planned, conducted and sustained to accomplish strategic objectives and synchronise action within theatres and areas of operations.'

- A Campaign is 'a set of military operations planned and conducted to achieve strategic objectives within a theatre of operations, which normally involves joint forces.'

- Strategy is 'the art of creating a desired pattern of events where the ends and the ways and the means of achieving them may be brought into balance within the prevailing environment.'[v]

- The Strategic Level is 'the level at which national resources are

allocated to achieve the Government's policy goals…'

- Tactics is 'the planning and execution of battles and engagements'

British Defence Doctrine further establishes the relationship between the levels. Within the strategic level it places military strategy, which 'determines the military contribution, as part of an integrated approach, to the achievement of national policy goals', emphasising that 'it is an integral, not a separate aspect of strategic level planning'. Beneath the strategic level sits the operational level 'linking military activity at the tactical level with its rationale established at the strategic level [and] providing a two-way bridge between the strategic and tactical levels'.[vi] The Doctrine emphasises, importantly, that although part of operational art is mechanistic – the coordination and synchronisation aspects of orchestration – the more significant part is conceptual: the intellectual, cerebral and, above all, creative business of design and execution. It is the latter part which really puts the 'art' into 'operational art'. For Professor Sir Michael Howard, 'strategy is about *thinking* and *planning*. Operations are about *doing*; hence the phrase 'operational art'… Without operations, strategy remains so much hot air' (emphasis in original).[vii]

OPERATIONS ARE ABOUT DOING; HENCE THE PHRASE 'OPERATIONAL ART'… WITHOUT OPERATIONS, STRATEGY REMAINS SO MUCH HOT AIR'

British Defence Doctrine's interpretation of operational art may have come a long way from its antecedents in Russian and German doctrine,[viii] but the term's meaning and place, within UK doctrine at least, are clear. There is no 'jumble of loose language'. But does operational art serve a useful purpose? In particular, does it provide a necessary link between strategy and tactics or, instead, act as an unwelcome wedge between them? Thus, does it contribute to, or detract from, the political utility of the use of force?

The interface between strategy and tactics should not, in theory, be problematic; in theory, the one slides seamlessly into the other: 'strategy proposes and tactics disposes'. But, in practice, history shows us that the two have an awful habit of disconnecting – sometimes with catastrophic consequences. For without adequate oversight and direction of the linkage between strategy and tactics (and vice versa), it is easy to assume that the connection is in place and functioning when it is not, and easy to see the achievement of strategic success as merely the sum of tactical victories. It is but a small step from there to believing that every battle fought and won is taking you closer to your strategic goal when the opposite may be the case. For, as Bernard Brodie famously pointed out, 'War is a question not of winning battles, but of winning campaigns.' Masterly operational art is thus a key contributor to success in war and conflict.

An example, in reverse, is the US experience in Vietnam, and well illustrated by a verbal exchange after the war between an American colonel, and a North Vietnamese colonel. "You know, you never defeated us on the battlefield," said the American colonel. The North Vietnamese colonel pondered this remark a moment. "That may be so", he replied, "but it is also irrelevant."[ix] US tactics had developed a logic of their own – the link between tactics and

strategy had been lost and it had become a 'strategy of tactics'. [x] In theory, of course, the in-theatre commander (from 1964-68, General William Westmoreland) should have defined successful tactics as those that contributed to strategic success, and realized that the tactics in use, which for a time appeared to be so successful, were actually directly contributing to strategic failure. But like so many commanders in history (although unlike his successor, General Creighton Abrams), Westmoreland misunderstood the war he was fighting and defined successful tactics as those that won battles. And winning battles is what soldiers like to do. An alternative view is that the main responsibility for the disconnect of strategy and tactics in Vietnam lay with the strategic level back in Washington, in particular with the top military strategists, who should have seen what was happening, realized that their strategy was deficient and the theatre commander incompetent, and taken action. Again, this is correct; but a combination of geographical separation, limited communications, a myriad of competing strategic responsibilities, intrigue and friction at the strategy/policy interface, plus some major errors of judgment,[xi] prevented this from happening. The result, for whatever reason, was that the vital link between strategy and tactics was missing. Effective and intelligent campaign orchestration – operational art – was absent, significantly contributing to strategic failure.

Justin Kelly contends that the connection function between strategy and tactics is no longer necessary:

> *'Modern communications have made connection with the strategic and tactical levels so intimate that the need for the connecting function during execution is no longer apparent. We don't need operational art to connect strategy and tactics – we can do without it.'*

IT WAS NOT JUST LIMITED COMMUNICATIONS THAT CAUSED THE LINK TO FAIL IN VIETNAM.

There is certainly some truth to the first sentence. Modern communications allow strategic leaders in capitals, including the head of government, to communicate directly with not only the deployed commander, but all of his or her subordinates as well. The need for a connecting function may, thus, not be immediately apparent. But, in practice, the technical ability of the strategic level to communicate directly with tactical level commanders is no substitute either for a proper chain of command with clearly defined responsibility and accountability, or for the close and continuous professional oversight of the link between strategy and tactics. It was not just limited communications that caused the link to fail in Vietnam. The above argument should not, however, be taken as justification or encouragement for the operational level being, as some have suggested it is [xii], a sort of 'politics-free zone' – an area in which politicians have no business, and into which they should not trespass. Some militaries, or elements of them, have indeed sought to suggest as much to their political leaders. For example, in the 2003 invasion of Iraq, the commanding general, General Tommy Franks, told Under Secretary for Defense Paul Wolfowitz, 'Leave me the hell alone to run the war', and commenting in his memoirs, 'While we at CENTCOM were executing the plan, Washington should focus on 'policy level issues.''[xiii] There should, of course, be no such thing as a 'politics-free zone'; as Eliot Cohen has argued, those responsible for policy would be wise to challenge any suggestion of one.[xiv] But they would also be wise to understand that the more

restrictions they place, directly or indirectly, on an operational level commander, the less scope that commander will have for creative operational art.

Justin Kelly also contends that the link between tactics and strategy is provided in the Anglophone military planning process by the application of mission analysis – the doctrine that demands that in determining his or her mission, a commander considers and follows the intent of the commander 'two-up'. This, he claims, 'theoretically links the lowest level tactical actions with the highest strategic aspirations.' And he is absolutely right – theoretically. In practice, things are not so simple; friction intervenes. Firstly, this relies on every commander at every level getting it completely right. Would that this could be relied upon! Some commanders will get it spot-on; others, especially in complex environments and under pressure, even in the best trained armed forces, will not. And errors at one level are multiplied as they proceed. A particular weak spot is the interface of tactics and strategy. Here, without an operational level, the senior tactical level commander in theatre, and, indeed, those one level below him or her, would be expected to fully understand the complex world of strategy, to be in the mind of the strategic-level commander (the Chief of Defense, or in some systems, a political leader), comprehend the intricacies of policy and politics, and keep abreast of the constantly changing dynamics at the policy/strategy interface. This is not something to thrust upon a tactical-level commander who has not been properly trained and, importantly, educated, in the subjects of operational art and strategy. The vital link between strategy and tactics is not adequately provided by mission analysis.

The vital link between strategy and tactics is not adequately provided by mission analysis.

Justin Kelly further argues that the operational level acts detrimentally in distancing campaign design and planning from strategy and policy.[xv] While political and strategic leaders (particularly military strategists) are clearly responsible for providing direction for a campaign, including setting objectives and laying down limitations, it is highly contestable that it is also their role to produce and maintain the detailed design of the campaign and campaign plan – particularly since this is not, as some people seem to think, a 'one-off' task, but is ongoing throughout the campaign. Assuming a military system where senior officers are educated and trained in operational art, this is a task for the subordinate who is going to be responsible for the plan's execution. Taking the UK as an example, the person responsible for military strategy, the Chief of the Defense Staff (CDS), acting within the strategic level, will produce a directive to a Joint Commander or Joint Task Force Commander in order that the recipient can design his or her campaign, produce a plan, manage it, and, importantly, be held accountable for it. This does not, surely, 'distance campaign design from strategy'; the two are directly connected. The idea that the CDS should personally orchestrate the campaign underestimates both the breadth of responsibilities of a CDS and the demands of campaign orchestration. Furthermore, for the Joint Commander/Joint Task Force Commander (or, for that matter, any commander) to be presented with a plan and be responsible only for its execution, undesirably blurs accountability when things go wrong ('Don't blame me for the plan, I'm just responsible for its execution!'). It also flies in the face of mission command ('Tell a subordinate what to do and why, but not how.')

Perhaps the greatest contemporary challenge for 'the operational' is one not mentioned in their articles by either Kelly or Owen, but addressed elsewhere by Kelly and others.[xvi] This relates to the place of operational art in campaigns of stabilization and counterinsurgency. Since these campaigns demand action over a number of lines of operation (LOOs) – for example, diplomatic, economic, military, social, information – they involve the participation of a number of government departments and external agencies. Campaign success depends on the close integration of the contributions and efforts of all these organizations in what is sometimes described as a 'comprehensive approach'. The integration of national assets may best be achieved at national level in the national capital by an ad hoc group or by a committee of a national security council. Thus, the operational and strategic levels would temporarily coincide – not that that breaks any immutable law – with the requirement for an individual, either from the military or, more likely, a civilian, to orchestrate the campaign in theatre. This requirement appears harder to fulfill in practice than in theory, especially the provision of an individual with sufficient authority over all LOOs. Usually, a compromise results, sometimes significantly detracting from unity of effort and the chances of campaign success. All of this underlines the degree of challenge not so much for the theory of the operational level *per se*, as that inherent in the management of stabilization and COIN operations.

In coalition campaigns, the operational level has a clearer role to play, if an even more challenging one. Although force generation will take place at national level, detailed campaign planning is likely to be conducted at a subordinate coalition level, an example being the successful planning and execution of Operation Desert Storm by General Norman Schwarzkopf and his headquarters in the 1991 Gulf War. In the exceptionally complex and challenging arena of multinational stabilization and COIN campaigns, the operational level commander has an even more central role to play in campaign orchestration. Such campaigns often have a large number of participating nations – over 30 in Iraq, over 50 at one time in Afghanistan – with varying sizes of national contingents, deployed into national areas of operation. Although each nation is at least nominally committed to the coalition's goals, their efforts and resources tend, in practice, to be concentrated on – sometimes, restricted to – the achievement of their own national strategies within their own areas of operation, sometimes characterized by critics as 'national cantonments'. Yet overall campaign success almost invariably requires more than just the sum of the parts. The coalition theatre commander, at the operational level, plays the key role in orchestrating the coalition security campaign, designing and executing theatre-level operations, 'raising the sights' of subordinates from the tactical to the operational level, and maximizing unity of effort, thereby achieving synergy and maintaining the link between tactical activity and coalition strategy. This is not easy, in practice, for a number of reasons: coalition strategic direction is likely to be less clear and more Delphic than is desirable; the commander is most unlikely to have responsibility for non-military lines of operation; there may be, as in Afghanistan, more than one military chain of command; and even the commander's responsibility across his or her military chain of command is seldom matched with commensurate authority. But it is in theatre, and only in theatre, that all the LOOs and all the key players come together, and therefore where coalition campaign orchestration takes place, either in the guise of a single individual with authority over all the LOOs, or, more likely, a group of LOO leaders, one of whom will be the military theatre commander. The latter will therefore be at the operational level and exercising operational art. In the words of one recent NATO commander in Afghanistan, 'The operational level has never been more important in achieving campaign success.'[xvii]

One further assertion of Justin Kelly's that needs to be addressed is his proposition that operational level responsibilities should be split, with 'grand tactics'[xviii] being the responsibility of the tactical level, and what he calls the 'operational level of strategy'[xix] – 'operationalizing strategies' – belonging to the strategic level. This has more going for it in theory than in practice. For the reasons already given, splitting the responsibility for campaign orchestration between design and execution is not a happy recipe for success, nor would it provide the firm link needed between strategy and tactics. He further proposes that:

> 'If in some future war there is a need for grand tactics or operational art then it will be a unique context that will require a unique approach. At that time there will be need to develop a theory of larger unit operations that accommodates the capabilities, needs and context. Until then we should probably simply let it go.'[xx]

Leaving aside the already contested implication that operational art is not required at present, it is fully accepted that the application of operational art – or indeed any doctrine – is situation-dependent and requires a unique approach; but this is not true of the concept as a whole, nor of the intellectual approach that underpins it. The skill required for excellence in campaign orchestration, and the necessary expertise in the subject, cannot be created overnight when some future war suddenly demands it. Indeed, building a cadre of officers with the necessary skill and expertise in operational art takes generations, and can only be acquired through specific education and training such as that provided at the US Army`s School for Advanced Military Studies and the UK`s Higher Command and Staff Course, plus much sustained, individual self-education.

Finally, perhaps the most important thing in the application of the concept of operational art and the operational level is, as with any doctrine, that it is taken as guidance and applied flexibly with common sense and good judgment. The UK doctrine on 'Campaigning' offers sound advice in this respect:

> 'The levels of warfare … provide a general framework for the planning and execution of operations, and a useful tool for organising and considering political/military activity. This framework does not imply hard and fast rules as to where decisions must be made, nor that events at one level can be isolated from those at another. There is invariably compression and blurring and the framework should be applied with judgment.'[xxi]

John Kiszely retired from the British Army in 2008. His final appointment was that of Director of the Defence Academy of the United Kingdom. He is now a security consultant and Visiting Professor of War Studies at King's College, London. He is also a member of Military Operations' editorial advisory panel.

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[xvi] Justin Kelly and Michael Brennan, 'Alien. How Operational Art Devoured Strategy', SSSI, 2009. See also Robert Leonhard, 'From Operational Art to Grand Strategy' in Anthony D. McIvor (ed.), 'Rethinking the Principles of War, Navy Institute Press, 2005, pp.208-222.

[xvii] Lieutenant General Sir James Bucknall (DCOM ISAF 2011), interview 3 April 2013.

[xviii] Kelly, p.10.

[xix] Ibid.

[xx] 'The operational level of strategy…is about breaking up strategic propositions into executable campaigns that accommodate the full dynamism and complexity of the strategic system that provides their context." 'Operationalizing strategies is a higher order than merely conceiving them." Ibid.

[xxi] 'British Defence Doctrine', JDP 00-1, 4th edition, UK MOD, 2011, pp 2-2.

How Armor Units Adapted to the Urban COIN Mission in Baghdad

Kason Fark

During the 2007 Baghdad Security plan, the U.S. military faced a major challenge: to secure and pacify a major world city in which all sides were fighting for control. In its arsenal was an overstretched conventional force suffering from extensive deployments, suicides, equipment shortages and malfunctions, and a declining pool of suitable replacement personnel. This was a mission that put American innovation and resilience to the maximum test.

To accomplish the strategy chosen by General David Petraeus, the ground commanders in Baghdad utilized a combination of superior conventional firepower and ground personnel saturation by establishing a large number of combat outposts (COPs) in the densely populated neighbourhoods far from the Green Zone and airport bases traditionally used from 2003 on. Like the subsequent Afghanistan strategy, these combat outposts had to suit one company of U.S. forces alongside half a battalion of Iraqi Army forces, meaning COP designs could not be too centric to the needs of American forces.

COPs required 360-degree security in the form of concrete 40 foot towers, heavily defendable entry control points with the capacity to allow visitors on foot through, and massive generators to power the high tech security cameras, drone monitors, and Secure and Non-secure internet servers, etc. The typical COP needed generator and high-voltage / air conditioning technicians, light wheeled vehicle maintenance technicians, and knowledgeable radio and information technology technicians in order to operate independently. COPs housing armor units also needed a protective space to work on vehicles and additional maintenance personnel.

To satisfy the diverse requirements for these outposts, ground commanders needed flexible subordinates and the maximum number of boots on-the-ground. Infantry units with four platoons of 30 soldiers served this role easily, but non-infantry units such as field artillery and air defence artillery battalions had a much more difficult time finding the manpower needed to service multiple outposts and simultaneously meet patrolling requirements. Armor units were among the most challenged units for specific reasons.

To satisfy the diverse requirements for these outposts, ground commanders needed flexible subordinates and the maximum number of boots on-the-ground.

First, armor units, even combined arms units, are comprised mostly of tank companies. Each company has three manoeuvre and one Headquarters platoon for a total of 14 tanks. Since each tank carries only four soldiers, the platoons are limited to 16 soldiers each and eight HQ soldiers (56 armor crewmen in all). HQ platoon also features a Bradley Fire Support Vehicle (BFSV), and an M1119 Humvee with four support personnel (supply communication, and chemical, plus the First Sergeant). In total, an entire armor company has 64 personnel, or roughly the equivalent of only two infantry platoons.

Second, armor crewmembers are trained singularly on the application of devastating firepower on an opposing conventional force. While most basic infantry soldiers also lack the requisite counterinsurgency skills needed to ensure proper treatment of civilians and municipal capacities in urban COIN, infantry NCOs have for a long time at least been trained in proper detainee handling, interaction with

locals, and general behaviour in the capacity of occupation. Armor crewmembers on the other hand may receive this training annually, but until Training and Doctrine Command revised the Common Task Training manuals, this training was not emphasized or practiced in field exercises. The secondary and tertiary effects of using 120mm Sabot rounds to dislodge enemy fighters in buildings were also a difficult concept for many armor soldiers to grasp.

Third, armor crewmembers become subject-matter experts in their appropriate equipment (i.e. M1A2 Abrams or BFSV), but in the application of COIN principles they must leave their heavy equipment in the motor pool in favour of light wheeled vehicles. Under normal circumstances this transition is easy, but in the course of evolution of tactics, techniques and procedures in Iraq, armor crewmembers found themselves learning Humvees from the ground up. Dismounting an Abrams is only performed during fire drills and fuelling operations, but armor crewmembers found themselves dismounting trucks regularly, forcing them to re-learn basic infantry operations last taught in basic training.

The challenges faced by armor units were not insurmountable

The challenges faced by armor units were not insurmountable, however. Combined arms units have a long tradition with 'slicing' or 'detaching' one platoon of infantry to the armor company in exchange for a tank platoon to the infantry company. An additional answer to combat the shortage of personnel included battalion commanders cycling their special platoons (mortar, scouts, etc.) into roles as manoeuvre platoons to supplement understaffed outposts. Alternatively, these platoons could perform as the Quick Reaction Force for the entire battalion area, either forward staged in a company outpost or on roving patrol in-sector as the battle captain saw fit.

The lack of COIN knowledge became resolved when company fire support personnel, who in urban settings were considered regular infantrymen, were trained on counter-insurgency techniques. This enabled the company commander to have a versatile targeting (kinetic and non-kinetic) group located within his or her own HQ, using soldiers already highly trained in calculations, communication, and efficient use of combat multipliers. For the armor platoons, a well informed Forward Observer became the intelligence officer of the platoon, tracking people and vehicles for quick field identification and apprehension.

Tactical questioning of detainees by the fires cell, as well as loaned Human Intelligence collectors enabled the company commander to track local grievances to be attended to in the meetings with the local councils. Eventually, each soldier, regardless of prior training, became attuned to the problems he created by wanton negligence and careless aim of weapon systems, understanding that each innocent victim of US firepower brought a family seeking vengeance.

For armor platoons patrolling in Humvees, platoon leaders modified tactics to create a mirage of additional troops, including dressing interpreters in the same uniform as the platoon and arming them, requiring combat medics to carry rifles or carbines to appear as regular soldiers, and ensuring they grabbed any extra personnel from HQ to fill empty seats in their vehicles. Instead of 16 soldiers on patrol, they were able to form an illusion of over 20. Additionally, having the Bradley Fire Support Vehicle in the lead of the column could add significant firepower, deterrence, and radio range with only an additional three people to the patrol.

Recommendations for future use of armor units in the application of COIN principles have been made at many levels. On the squad or tank level, soldiers should familiarize themselves with dismount procedures from all types of vehicles, ensure their kit can be quickly accessed and donned, and be intimately familiar with current urban fighting techniques. Young soldiers just out of basic training should be taught the skeleton of COIN principles with an emphasis on secondary and tertiary consequences of violent action against civilians.

Young soldiers just out of basic training should be taught the skeleton of COIN principles

Armor platoon leaders should schedule quarterly training with combat multipliers such as Military Working Dogs, Forward Observers, and Unmanned Aerial Vehicles. Weapon systems operators should be instructed as to which types of targets they are authorized for, alongside standard Rules of Engagement training. Company commanders should enforce the multi-use capacity of their fires / targeting cells and ensure all fire support personnel have access to training alongside battalion or brigade Human Intelligence collectors.

Commanders facing the possibility of counterinsurgency operations in urban terrain will be tempted to use their firepower to create a sense of fear in the enemy. However, creating fear in the eyes of the people, thereby making enemies out of civilians, may make the unit worse off than necessary. Lastly, when considering the maintenance and logistics, as well as the limitations of armor in confined areas, commanders will find success in moulding their unit to the mission instead of moulding their mission to the unit. These are the lessons of the forgotten wars.

Kason Fark is a former US Army Fire Support Specialist and NCO Academy Instructor. He holds a BA in International Security and Conflict Resolution and is currently working on an MSc in Conflict Analysis and Resolution.

Rhodesia: Lessons Learned

Peter Macdonald

It is better to learn from the mistakes of others than to make them oneself. Such advice applies equally to nations and armies as it does to individuals. Largely ignored by the latest British Army Counter-Insurgency manual. Rhodesia's Bush War offers an interesting example of how to conduct a successful counter-insurgency campaign, at least on tactical and operational levels, albeit ultimately failing spectacularly at a strategic level.

The campaign was particularly British in many respects, a paradox given that the Rhodesian government had broken away from Britain with its unilateral declaration of independence (UDI). It also incorporated a number of tactical and operational issues already addressed in this journal. These include the use of unencumbered 'dismounted' infantry, capable of finding, fixing and nailing an elusive enemy[i]; the training of indigenous forces[ii]; the employment of specialist units raised from local volunteers outside the 'formal chains of command'[iii]; and the continuing relevance of parachute insertion in both counter-insurgency and conventional operations.[iv]

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In terms of Counter-Insurgency operations, one could do worse than take a close look at Rhodesia's experience during the 1970s.

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The first and second issues of Military Operations also included the use of Mine-Resistant Ambush Protected (MRAP) vehicles[v], and the design and manufacture of effective, mine proofed transport was

something in which the embargo beleaguered Rhodesians excelled. A fundamental problem facing analysts, planners and procurement experts remains that of forecasting future operational requirements with any accuracy. An ability to predict across a wide range of scenarios, including the various tactics, techniques and procedures (TTP) required and allowing for different equipment needs, whilst concurrently taking into account possible advances in technologies, is still no guarantee of success. Ignorance, however, is a sure way to court failure. In terms of Counter-Insurgency operations, one could do worse than take a close look at Rhodesia's experience during the 1970s.

Also known as the Second Chimurenga (or liberation struggle), the 'bush war' lasted from 1964 to 1979. Seen by some historians such as Paul Moorcraft[vi] as 'the struggle to maintain white supremacy in what is now Zimbabwe, a hundred years after Cecil Rhodes' pioneers carved out a British colony there', it represented more than a mere attempt to maintain the status quo in a rapidly changing post-colonial world through force of arms.

Southern Rhodesia had effectively been independent since 1923. However, faced with a power share with the country's black African nationalists in the 1960s Ian Smith's Rhodesia Front government stated its aim to break with Britain through a UDI in 1965. It gambled (correctly) that whatever moral or political objections Britain held would not result in military intervention.

Rhodesia had cut its teeth on conflict from the early days of its formation. Heroic Imperial figures such as Baden-Powell, Frederick Selous, and Cecil Rhodes forged the country and begun an impressive war record on behalf of Britain. Rhodesia contributed more servicemen per head of the (white) population in both World Wars than any other part of the empire, including the United Kingdom. This strong pioneering spirit prevailed until the formation of Zimbabwe.

Just as importantly, a significant proportion of Rhodesia's white population had served with Britain's armed forces in the Second

World War, and close ties were maintained at higher echelons. Additionally, many British ex-servicemen, especially from the Royal Air Force and to a lesser extent special forces, had settled in the country. Together with born-and-bred Rhodesians, they were prepared to fight for it.

Whilst Britain and her allies imposed restrictive economic sanctions on the 'rebel state' settling for a long-term diplomatic negotiating game, Rhodesians began an escalating conflict against the externally-based nationalist guerrilla movements of ZIPRA and ZANLA (the military wings of Joshua Nkomo's ZAPU and Robert Mugabe's ZANU respectively).

Many commentators agree that the war can be divided into three fairly distinct phases. The first phase ran from 1965 to 1972, during which the security forces waged a militarily winnable campaign against the nationalists, more often than not aided by the latter's internal conflicts. The second phase was from 1972 to 1976, during which they were engaged in a war they could not win through force of arms. Finally, the third phase ran from 1976 until 1979: a conflict that they could only lose, in both military and in political terms.

During the first phase white Rhodesia had a number of significant advantages.

During the first phase white Rhodesia had a number of significant advantages. It continued to build on those strengths through all three phases, as it refined the requisite TTPs to deal as effectively (and as economically) as possible with the increasing threat both from within and without its borders.

However the fertile, mineral-rich rogue state's most vital asset was its pool of manpower; drawn from the white minority population: a supply of fit, educated, largely middle-class males with which to populate and enlarge its armed forces. The soldiers, policemen and airmen (be they regulars, reservists or conscripts) provided the government with capable personnel whose experience and resourcefulness grew as the demand for their services escalated.

Until the beginning of the bush war the main force within Rhodesia was the British South Africa Police (BSAP), established as a paramilitary mounted-infantry unit by Rhodes in 1889. It provided troops for Britain in wartime, and continued training its officers in both police and regular military roles. In addition to the white 'Patrol' and 'Section' Officers and Inspectors, the BSAP comprised of black constables, sergeants and sub-inspectors. Ultimately, it became a force of some 11,000 regulars with a white:black ratio of about two to three. It was supported by some 30-35,000 reservists, most of which were white.[vii]

Throughout the 1970s the BSAP maintained its presence in rural areas, manning district police stations with anything from a dozen to forty personnel, responsible for policing, patrolling and protecting areas comprising several hundred square kilometers of what was largely designated Tribal Trust Land. By 1979 the BSAP had evolved to incorporate a range of counter-guerrilla functions. It fielded Police Anti-Terrorist (PATU) patrols, a larger police field force called simply the Support Unit (but referred to as 'Black Boots' after their preferred footwear), an Urban Emergency Unit (SWAT) and a Police Reserve Air Wing (PRAW). The specialist four-man PATU patrols were generally considered the elite, established on SAS lines by veteran

former SAS Regimental Sergeant Major Reg Seeking, one of David Sterling's Senior NCOs. Like many of the expatriate community with wartime experience, he was now a police reservist.

As suggested by both Miller[viii] and Anglim[ix], the training of indigenous forces is an important consideration in paramilitary operations. In Rhodesia black African policemen, whether part of PATU or SU patrols or based in district stations, liaised with locals, acted as interpreters and provided a vital operational presence. In addition specially selected black 'ground coverage' police officers were employed as undercover intelligence gatherers. They often acting independently and unsupported in urban and rural areas where transient tribespeople would not stand out. As in previous 'British-style' post-colonial conflicts such as Malaya and Kenya, Special Branch (SB) officers provided a vital intelligence function for both police and army headquarters.

Following the Second World War Rhodesia had been left with two regular army units, the Rhodesian African Rifles, a black unit officered by whites, and the Permanent Staff Corps. The latter supplied the instructors for the compulsory territorial service that young white males underwent within the Rhodesia Regiment, attending short camps and weekend parades.

Post-war operational experience for Rhodesians was necessarily limited. There was the Rhodesian contingent of the Far East Volunteer Unit, initially destined for service in Korea but diverted to Malaya to fight the Chinese communist insurgents there. Led by a young Peter Walls, who later went on to command Rhodesia's security forces, this became C Squadron of the British 22 SAS Regiment. Its soldiers became highly skilled in counter-insurgency warfare after three years in the Malayan jungle.

In May 1960 the Rhodesian government responded to Lord Louis Mountbatten's suggestion that its contribution be reduced to a far smaller special forces formation. The following month the extremely bloody mutinies of black soldiers in the Belgian Congo encouraged the government to establish white professional army units: C Squadron SAS; the First Battalion of the Rhodesian Light Infantry (1 RLI, formed in 1961); and an armoured car squadron. This was seen as insurance against the Congo experience being repeated in Rhodesia. In addition the Territorial Army was expanded, with reserve Rhodesia Regiment battalions increasing to an established strength of ten.

Initially the government responded to increased black nationalist incursions with a serious of successful COIN operations

These were the more or less conventional military formations available when UDI was announced. They were those which it deployed, together with the BSAP, as the country entered the first phase of the insurgency. Initially the government responded to increased black nationalist incursions with a serious of successful COIN operations, such as Ops Nickel, Cauldron and Griffin in the late 1960s. These saw a significant shift away from BSAP control to that of the Army. This transition produced resentment within the higher echelons of both forces up to 1980, although at lower levels cooperation was good and became increasingly effective.

A number of traditional measures to exclude the insurgents were undertaken during the first and early second phases of the counter-insurgency. Concepts were drawn from successful British COIN operations such as those in Kenya and Malaya, but also from French experience in Algeria and elsewhere. These included establishing a *cordon sanitaire* along the border with Mozambique, and the construction of protected villages (PVs) into which village communities within the cordon would be relocated (such as in *Op Hurricane* in the north east of the country). These measures met only limited success. The enforced movement of villagers from their traditional tribal roots caused a great deal of resentment, ultimately aiding black nationalist recruitment.

Areas where the Rhodesians were more successful are illustrated in two distinct, yet related areas: the use of 'pseudo teams', such as the Selous Scouts, and the creation of the Fire Force concept. The latter employed ground, heliborne and airborne elements in conjunction with air-ground attack units.

Pseudo-operations were not an original concept. Security force personnel, together with captured and subsequently 'turned' guerrillas, played the role of and impersonated the enemy. The British model for pseudo-gangs was promoted by Kitson[x] and was highly successful against the Mau Mau in Kenya. It had been trialled by BSAP Special Branch officers in the mid-1960s but it was not until the creation of the Army's Selous Scouts under Major (later Lt Col) Reid Daly that the idea bore fruit. The Scouts, as they were generally known, began life as a covert reconnaissance and tracking unit. They went on to undertake countless clandestine missions, and ultimately operated as a commando unit taking part in large-scale vehicle-mounted cross-border operations. With a strength of some 1,500 to 1,800 (including approximately 800 'turned' insurgents by the end of the war), the Scouts equated in size to a three battalion regiment.[xi] They were no longer secret and had largely, but not entirely, abandoned their 'pseudo' role.

Having a certain notoriety is not always a disadvantage and can act as a force multiplier. Otto Skorzeny's operations during the Ardennes offensive when his teams, armed, equipped and dressed as US soldiers, and driving captured vehicles, spearheaded the German advance caused untold confusion and resulted in countless blue-on-blue engagements. Similarly the Scouts' small-scale pseudo missions in rural areas within Rhodesia, where their teams were indistinguishable from ZANLA and ZIPRA insurgents, resulted in a number of guerrilla versus guerrilla contacts. Larger scale offensive operations, such as Op Eland mounted on the ZANLA training camp at Nyadzonya Pungwe, Mozambique in August 1976 increased the number of enemy casualties dramatically. Ostensibly a Mozambique army column comprising trucks and armoured cars transported the force of 84 Scouts to what the UN considered a camp registered for refugee status which it attacked. In the resulting action the Scouts killed 1,284 people (600 guerrillas according to Reid Daly[xii]) most of whom from Reid Daly's own account were unarmed guerrillas forming up on the parade square and included almost all the patients of the camp hospital.

SUCH OVERT OFFENSIVE ACTIONS CUT BOTH WAYS.

Such overt offensive actions cut both ways. Within Rhodesia the raid was seen as a major success. On a global scale it resulted in significant international condemnation, not least from the UN. Outside criticism notwithstanding, significant body counts were a Scout speciality. In a report commissioned by Rhodesia's Directorate of Military Intelligence, 68 percent of all insurgent deaths within Rhodesia could be directly attributed to them.

Whilst the exploitation of captured enemy combatants in the form of pseudo gangs was the natural evolution of a previously tried and tested unconventional warfare tactic, many of the techniques and technologies adopted and adapted by the Rhodesian military were more original. The creation of Fire Force as an operational method was largely dependent on the unique nature of the Rhodesian Air Force (RhAF). During the Second World War 977 Rhodesian officers and 1,432 airmen had served in the Royal Air Force. Post-war downsizing left the country bereft of aircraft but with a surfeit of trained and experienced aircrew. Over the next twenty years it acquired an impressive mishmash of often obsolete but entirely serviceable aircraft.

Beginning with South Africa's gift of a C-47 Dakota in 1948, twenty-two Spitfire XXIIs, thirty-two Vampires and sixteen Provost trainers were soon acquired. By the time of UDI the airforce had two bases: New Sarum near Salisbury and Thornhill near Gwelo. It had 1,200 regular personnel and was equipped with Hawker Hunters, Canberras and Vampires. The start of the bush war had less impact on the airforce than UDI did. Facing little external threat, the main challenge was how to procure vital spares and aircraft in defiance of international sanctions. This was met with increasing ingenuity and subterfuge. For example jet engines had been sent to Rolls Royce in Britain for servicing but UDI prompted Britain to seize fourteen aero-engines being serviced for both Hunters and Canberras.[xiii]

Rhodesian technicians were forced to service the remaining engines and equipment assisted by local industry. Starter cartridges were a difficult issue until the discovery that Canberra engines could start on compressed air, and a vehicle starter motor could replace that used in Provosts. Starter motors for Hunters had been sent back to Britain after 70 starts, Rolls Royce charging £14,000 per motor. Airforce technicians learned to strip down and service the starter motors at a cost of 76 pence per unit, a significant saving. Nine of the 12 Hunters were still flying 16 years later, a credit to their ingenuity. For the remainder of the war spares and weapons were secured through clandestine purchasing and local manufacture - including the production of a singularly lethal range of indigenous aircraft munitions.

THESE WEAPON SYSTEMS, AIRFRAMES, OPERATORS AND TECHNICIANS PLAYED A VITAL ROLE IN THE COUNTER INSURGENCY

These weapon systems, airframes, operators and technicians played a vital role in the counter insurgency, but the decision to purchase Alouette III helicopters stands out. Selected as they suited local conditions and were relatively inexpensive, Alouette IIIs were flown by both South Africa and Portugal, fighting its own insurgency in neighbouring Mozambique. Authority to engage insurgents with them as gunships was denied until 1973 when increased guerrilla activity led to the trail and adoption of a dedicated gunship, known as the K-Car (the prefix denoting Command) armed with 20mm cannon.

The troop-carrying G-Car was capable of lifting a four-man infantry 'stick' and was crewed by a pilot and a technician/air-gunner, who manned twin.303in Browning machineguns with 500 rounds each. These Alouettes formed the backbone of the Fire Force formation, working with fast- (and slow-) ground attack aircraft. In the later stages of the bush war they worked with C-47s containing 16 paratroops from the Fire Force infantry (either RLI or RAR, the latter of which had been increased to two battalions and parachute trained).

In essence the Fire Force operation would be initiated by a ground unit, an Army or PATU patrol or a Scout observation post. Aircraft support would depend on what was available. Towards the latter phase of the bush war when external operations were stepped up, aircraft were stripped from Fire Force bases across the country to support SAS or RLI missions outside it. In a 1979 study Wood[xiv] suggested that the best practical combination was a K-Car containing the Fire Force commander directing the ground assets once deployed, piloted by an experienced senior pilot who co-ordinated the air transport and air/ground attack assets; coupled with four G-Cars and a Dakota (giving 32 troops on the ground), and supported by a propeller-driven Lynx light strike aircraft equipped with a range of ordnance including rockets, bombs, napalm and machine-guns. Given that a typical contact involved between six and twelve insurgents, the security forces operated with a three to one numerical superiority. Such operations soon delivered an impressive 80:1 kill ratio.

SUCH OPERATIONS SOON DELIVERED AN IMPRESSIVE 80:1 KILL RATIO.

As such successes suggest, when it came to counter-insurgency operations the Rhodesian military were effective, highly adaptive and in some cases inspirational in their efforts to stem, for a time at least, the tide of black African nationalism in their country. Given that Rhodesians were not only working with an extremely limited budget but also in the face of international pressure, the rogue state's achievements were remarkable.

Mills and Wilson[xv] perhaps put it best when they suggested: 'Pound for pound, the Rhodesian security forces may have been the most effective fighting force of the last century. Numbering at their peak 15,000 troops, pitted against an opposition likely at least three times as strong within and without the country by the war's end, and employing increasingly aggressive tactics taking them into the neighbouring countries, they were able to keep in check their numerically superior guerrilla opponents, despite having to operate across a country larger than Germany, and over terrain practically impassable in many locations.' The downside was, of course, that ultimately they lost.

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Brains, Bullets and Flanks

Leo Murray

Defence departments love using numbers to help them make decisions. Unfortunately, their evidence-based decisions are often biased because some numbers are easier to obtain than others. Physical variables like muzzle velocity, blast radius or firing rate are easy to measure; but for important things like morale or tactics, empirical data is very thin on the ground. This has steadily pushed defence departments towards the easy-to-measure world of attrition.[i]

The combat soldier has a similar problem. He can recite the range and firing rate of all his platoon's weapons, but when it comes to understanding the enemy's will to fight, he has to guess. He has a vague idea about how many rounds will be needed to suppress the enemy but he will usually err on the side of caution and fire far more than is necessary. Likewise, he might be fairly sure that the enemy will try to surrender once the fight gets near bayonet range but, rather than risk it, he will probably call up an air strike instead.

So, while defence departments and soldiers will cite Napoleon's dictum that 'the moral is to the physical as three is to one' or Vegetius' 'an adversary is more hurt by desertion than by slaughter', these phrases cannot compete with the arithmetic of attrition. Despite woolly concepts like 'influence operations', the weight of numbers biases armies towards weapons, training and tactics that provide more in slaughter than manoeuvre. The tactics are expensive, slow and often counter-productive; they have encouraged the Afghan insurgencies and will be of little help in 'contingency' war-fighting.

Tactical psychology is an effort to counter this imbalance by uncovering facts about the way people think and act in combat, then giving the facts to defence departments, training establishments and soldiers. This is not the type of data that one might get from the study of the accuracy of a weapon clamped into a bench vice or for a trained shot on a firing range (though such figures are often extrapolated to real combat in order to support procurement). The data gained from an assessment of tactical psychology will be less precise but far more relevant, as it is concerned with the chances that a soldier will even attempt to aim his weapon in a real fight.

This is not the type of data that one might get from the study of the accuracy of a weapon clamped into a bench vice or for a trained shot on a firing range

Cutting Out

The easiest way to get a grip on tactical psychology is by looking at flank attacks. We all have an idea of the effects of flanking, but are we right? Is it an idea we would expect a defence manager to stake his career on or a young lieutenant to risk his platoon for?

To get a flavour of the effect, Corporal London, an Australian soldier in the Great War, relates his experience outflanking German soldiers in 1918:

'We creep along by the embankment with Gaskell in front till we get to the house, then Scott and Warren go in while we keep cover. There's no one home and no one out the back so we creep on back towards our line, checking the shell holes in this here barley field. We know Jerry's close as there's pipe smoke in the air and they've been doing their business in a little hole that Warren puts his hand in. We creep right up behind the first hole and there's a machine gun in it and a couple of old hands. Gaskell coughs to get their eye, waves

his revolver and they stick up their hands and start jabbering French at us. Warren waits with these lads and tries to clean the muck off his arm while the rest of us go on to the next hole.

This second lot are jumpy as they must have heard the first lot jabbering. They fire off a few shots but once we reply they throw up their hands. By now the third lot, the ones closest to our line, are on full alert. Straight away Gaskell goes on at them; this is by himself with just a revolver and a few bombs as he's had to leave me and Scotty with the second lot. There's a quick shooting match and they put up their hands too.

So now there's four of us with fourteen or fifteen of them and their three machine guns plus all the papers and what have you all in the front crater trying to get back without getting it off our boys or theirs. So Scotty goes over and tells the company we're coming then we just jump up and scamper back with Gaskell waving his revolver and scowling at the prisoners. By now I'm about blown with all that crawling but all I get is a quick breakfast and sent back out again.

That's how it was with the cutting-out business in those days. We spend years getting ourselves slaughtered going at it head-on as we'd been taught, then it turns out that the Aussie way of getting round the back was the best all along.'

The cutting-out tactic was named after a drovers' trick for separating livestock from the main herd. It was a favourite of Australian troops but all sides were using variations of it by the end of the war. Corporal London went out on another raid within the hour and helped bring in another eighteen prisoners. Other patrols from London's company used cutting-out to capture sixty-eight men and seven machine guns that day. With only light casualties on both sides, a dozen men collapsed the German defence and the whole battalion was able to advance.

Sometimes flanking tactics developed intuitively because they were 'the Aussie way' but they usually grew from bitter experience, experimentation and copying the enemy (finding a flank was the German way too). The difference between the 'walk towards machine guns' tactic of 1916 and the various flanking methods being used in 1917 and 1918 could not be more stark.

1980s Revival

Corporal London's account is an extreme example of the power of flanking, but we need a more balanced comparison to get an understanding of the flanking effect. The data mountain from our most recent wars includes very little on flanking or tactical psychology (though there have been a few valiant efforts to buck the trend), so it is necessary to compare two actions from the Falklands War that have been examined in great detail by staff college students: the battles of Mount Longdon and Mount Harriet.

As night fell on 11 June 1982, 3 Para was preparing to attack a reinforced company of the Argentine 7th Infantry on Mount Longdon. Seven kilometres further south, 42 Cdo was about to strike elements of the 4th Infantry on Mount Harriet.

The forces available for each attack were roughly equal, with both 3 Para and 42 Cdo based on three rifle companies with direct fire support from machine guns, anti-tank missiles and snipers. Each had indirect fire support from their own 81mm mortars, a battery of 105mm guns and a 4.5in naval gun. Though Paras and Marines

might argue otherwise, both attacking units were picked men with similar levels of training and baseline motivation.

The defending forces were fairly balanced too. The company facing 3 Para on Longdon was reinforced by combat engineers, elements of a marine support company, and some snipers. All told, Longdon was defended by 220 men with .50cal and 7.62mm machine guns, recoilless rifles and anti-armour missiles. On Harriet, the defence had nearly twice as many men but no marines and fewer heavy weapons. There were 120mm and 81mm mortars on both positions. Both positions consisted of half-finished trenches and sangars perched on rocky ridges with most of their minefields, registered artillery and direct fire arcs running from north-west to south-west.

While each Argentine force had options for fire support from 105mm and 155mm artillery, the Longdon defenders were able to make better use of it on the night. Most assessments agree that, on paper at least, 42 Cdo had the toughest nut to crack, though this was balanced by the fact that 3 Para could not use one of their rifle companies due to the tight angle of attack.

The angle of attack made all the difference.

The angle of attack made all the difference. While the terrain forced 3 Para into a frontal assault from the west, 42 Cdo were able to carry out a wide flanking move and assault from the south-east. Both attacks were supposed to go in silent, but both were sprung within a few hundred metres of the objective and instantly switched to being noisy and violent.

On Longdon, 3 Para were caught in murderous arcs of direct fire and increasingly heavy indirect bombardment. Small bands of men had to fight from one rock to another, taking casualties at every turn in what is still the bloodiest British battle since Korea. Forward movement was constantly held up by small groups of Argentine defenders fighting for every ridge and sangar. By the time they had secured Longdon, the assault force was exhausted and almost out of ammunition.

By the time Longdon was taken, 3 Para had eighteen men dead and forty wounded. They had killed maybe forty defenders and captured another forty. The remaining defenders were pushed off the position, taking an unknown number of wounded with them. After some confusion the uninjured survivors were reintegrated into the remains of the Port Stanley defence.

On Mount Harriet, 42 Cdo also had a stiff fight but it was far less intense than the battle to the north. Their longer approach meant that their attack was sprung after 3 Para had already attracted most of the Argentine artillery, but 42 Cdo was quickly in amongst the defenders anyway, making them a difficult artillery target. Like 3 Para, the marines fought with grenade and bayonet from one small position to the next. But unlike 3 Para, their main problem with maintaining momentum came from dealing with the large number of prisoners they picked up along the way.

All told, 42 Cdo lost two men killed and around twenty-six wounded. They had killed around twenty defenders and captured nearly 300. Very few Argentine defenders escaped to fight another day.

If we consider the two battles solely in terms of soldiers killed,

wounded and captured, then Longdon was a three-to-one victory and Harriet was a twenty-to-one victory. In this instance a flanking attack was six times more effective than a frontal attack. Then of course we have to consider that while 3 Para was exhausted, 42 Cdo could probably have moved on to take a further objective had this been required.

Numbers Up

There have been many studies of flank attacks, with some staff college libraries containing half a dozen unpublished theses on the subject. But these studies tend to focus on large battles and on headquarters rather than the small teams of soldiers where tactical psychology has the greatest impact.

Added to this, a lot of flanking research is tainted by wishful thinking. It seems that in their desperation to counter the bias towards attrition, analysts and staff officers have been prone to exaggerating the power of manoeuvre. For example, the otherwise excellent *Infantry in Battle* (Infantry Journal, 1939) includes a chapter on 'soft-spot tactics' which only relates the most spectacularly successful examples of flanking by infiltration. Likewise, a flanking study conducted for the Army Personnel Research Establishment in the 1990s compared only famous flanking victories and notorious failures of frontal attacks.

This manoeuvrist bias reflects a natural tendency for historical data to under-report failed flank attacks – those that fail to find a flank are reported as frontal, those that find a flank but are ultimately defeated rarely occupy more than one line in a battalion war diary. It is also very hard to find attacks like Longdon and Harriet that allow attack and defence strengths to be balanced out.

Despite these limitations, historical analysis (the application of statistical techniques to military historical data) has compiled a selection of eighty engagements where reports from both sides have been used to counter the effects of exaggeration and wishful thinking. This work draws on the raw data in American, British and Canadian studies to show that, on average, flanking attackers suffer one-third of the casualties of the defenders, while frontal attackers take six times as many casualties as the defenders (see *Fig 1*).
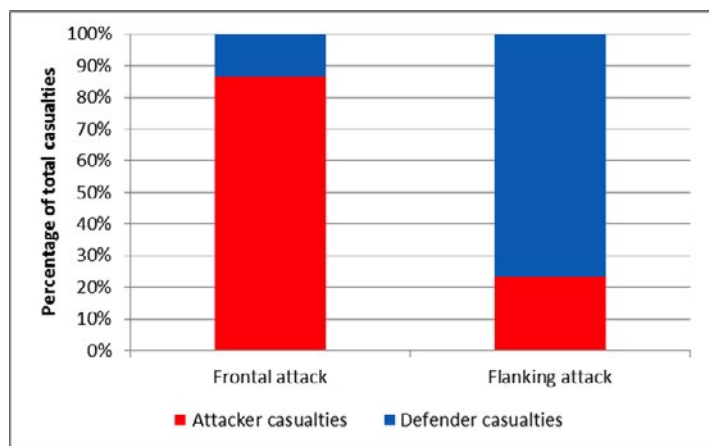

Fig 1: Casualty share for frontal and flanking attacks

Of the frontal attacks that were examined, none were successful unless they had an overwhelming manpower or firepower advantage (of at least six-to-one), while the flanking attacks often succeeded despite fighting at a numerical disadvantage. Even when frontal attacks succeeded, the enemy usually withdrew rather than

surrendered, whereas successful flanking attacks tended to capture far more of the enemy than they killed.[ii]

A good chunk of the success of flanking is due to its purely physical advantages. Avoiding wire and minefields has an obvious benefit, as does the ability to negate carefully selected cover to shoot people in the back. Flankers can also fire along a line of defenders, rather than at a right angle, effectively giving each shot more chance to hit someone (or suppress them).

Flanking also tends to deliver a local force ratio bonus, for example at the point of the Mount Harriet assault, 42 Cdo was able to move along the thin edge of the defended zone, repeatedly engaging small groups of defenders. While 42 Cdo could only use a fraction of their force at any one time, they often had twice the usable combat power of the Argentine defenders.

Yet the problem of getting a large force around a flank and then fighting through a deep defended zone means that many flanking attacks do not have these advantages. In such cases they appear to win through a combination of psychological factors.

Tactical Psychology

The most commonly cited psychological effect is that flanking pushes defenders into a particularly nasty version of information overload. With their attention often split by a simultaneous frontal threat, the flanking assault is, in effect, giving defenders too much data to process. Even without a firebase holding the enemy by the nose, fire and movement on a flank is generally far more confusing for defenders than a frontal assault.[iii]

HOW DID THEY GET THERE? DID THEY KILL OR CAPTURE EVERYONE BEHIND US?

Extra uncertainty comes from the attacker appearing at unexpected places: How did they get there? Did they kill or capture everyone behind us? Have our flanking units bugged out without telling us? There is an organisational aspect to uncertainty, with the effort needed to reorganise the defence preventing a coordinated response and creating an 'uncertain stumble', where each man is focused on a different part of the threat.[iv]

In platoon and company engagements there is usually a compulsion bonus for the attackers. The attacking commander can put himself close to the point of decision, driving men on by his example and by exploiting the powerful coercive effect that comes from having the boss nearby. Meanwhile, the defending commander is most likely to be a hundred metres away, still expecting a frontal attack.

Flanking attacks tend to get in close before they are sprung so there is a proximity effect at work too, with most people having a very strong aversion to fighting at close quarters. Depending on terrain and weaponry, the effectiveness of fire drops off within approximately fifty metres of the enemy because everyone is suddenly much more aware of what a horrible place a battle can be.

Proximity is perhaps the most complex aspect of tactical psychology but the attackers, owning the initiative like they do, know that they have reached a point of no return – a point where the best survival option is to fight on. The defenders are not so certain, and often think

they are at the last safe moment, a place where their best option might be to run, hide or surrender.

But if we discount uncertainty, proximity and all the rest, the very act of being outflanked looks to have its own unique psychological effect. Opinion is split as to where this comes from. Some analysts have suggested that it is biologically programmed and has something to do with our sense organs pointing forwards, as if we have an innate dislike of being blindsided. Others have focused on social learning to suggest that being outflanked is a culturally recognised disadvantage which radically recalibrates a soldier's 'is it worth it?' calculation, greatly encouraging the innate freeze response to a threat.

The exact mechanism is unknown.

The exact mechanism is unknown. What is known – as well as we can tell by assessing those eighty battles – is that if we subtract the physical bonuses and all the other known psychological forces, the pure flanking effect halves the chance of a man fighting. Put all these factors back together and on average a flank attack, *if you can do it*, is seven times more effective than a frontal attack.

The Future?

Sadly, as with most tactical techniques, the details of how to perform a flanking attack are largely forgotten between wars and have to be relearned by each new generation of combatants. Close tactical lessons do not readily translate to pamphlets or standing orders. They are often only transmitted successfully when veterans are taken out of the fighting to run training – a policy that Western armies have always had trouble implementing.

But the school of hard knocks is incredibly wasteful. It relies on soldiers surviving combat long enough to learn from their experience. It also needs soldiers to fight on a level playing field rather than one where, like Afghanistan, our side has all the firepower.

The solution is to give soldiers the facts about tactical psychology and the freedom to work out how to make best use of them. Unless this happens, defence accountants will stay focused on lethality and training will continue to play lip service to manoeuvre. Without an appreciation of tactical psychology, our soldiers will retain tactics that will be as unsuitable to the next war as they have proved to be in Afghanistan.

Leo Murray is a highly experienced military psychologist. He has many years' experience of defence research and field trials. His forthcoming book, 'Bullets and Brains: How Psychology Wins Wars' has recently been published by Biteback Publishing. It is a masterful treatment of the wider subject of the psychology of dismounted combat. 'Bullets and Brains' is highly recommended reading for all subscribers of The Journal of Military Operations.

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[i] This, in turn, has led to some dangerously mistaken conclusions. One of these, repeated in doctrine publications in various forms, is that 'although set within a manoeuvre framework, the infantry battle is essentially one of attrition.'

[ii] Success by flanking generates different strands of positive feedback, limiting the development of a vengeance cycle (e.g. I'm fighting because you killed my mate) and, in a long war, indicating to subsequent enemies that surrender is a viable option. The absence of both these strands has been notable in Afghanistan.

[iii] An element of this can be seen in incident reports from Afghanistan, with patrols facing two or three insurgent teams often reporting that they are pinned down from eight or nine firing points and unable to prioritise or respond effectively.

[iv] Fast, combined-arms attacks have the same effect, splitting defenders between the best response for armour, infantry or indirect fire.

Influencing The Enemy Commander's Behaviour

Anna Maria Brudenell

The purpose of war is to have the enemy do what you want him to. Much of fighting concerns the application of violence, but some of it concerns the psychological impact of the threat of violence. This begs an important question: could we be smarter about getting the enemy commander to do what we want, by manipulating the use of violence, the threat of violence, and a range of other activities? This article proposes a method for doing just that. The suggested methodology has two major potential benefits. First, it should enable effect to be assessed; secondly, it should result in conflicts being concluded more quickly and with fewer casualties than more conventional forms of engagement. In turn, that should not only result in wars being cheaper in the long run, but also in sustaining political support. It is probably more applicable to low-intensity or irregular, rather than regular, warfare

Existing methods are demonstrably deficient. The British Army operated in South Armagh, in Northern Ireland, for about 30 years yet failed to convince a few dozen farmers to stop attacking it and the police. If that is true in relation to the Provisional IRA, then it is probably also true of the Taliban or Iraqi militias. Conflicts such as those in Northern Ireland, Iraq or Afghanistan continued for years and cost hundreds of millions of pounds. It seems desirable to conduct and resolve such conflicts more quickly, cheaper and with less loss of life.

> ## It seems desirable to conduct and resolve such conflicts more quickly, cheaper and with less loss of life.

The aim of the proposed method is to focus attention on the key enemy leadership and to engage, or threaten, what he (or they) most value. Indeed, it is sometimes the mind and needs of the enemy leader, rather than his war-fighting materiel, that are the 'real source of a conflict, its prolongation and the essential ingredient to its conclusion.'[i] The process is called Axiological Engagement. Axiology is the combination of the Greek word *axios* meaning 'worthy' and *logos* meaning 'reason' or 'theory'; therefore, 'axiology' is the theory of values and validity.[ii]

Axiological Engagement proceeds through a series of simple steps. Having identified the key enemy decision maker (or makers), the next step is therefore to ascertain his values; that is, to determine what motivates the leadership. The next step is to decide how to engage or attack that which motivates them; and lastly, to assess how to measure progress against those attacks.

It is sometimes assumed that the key enemy decision maker is the enemy commander. It may be, and in the case of a regular armed force it probably is. However, the idea of 'the power behind the throne' suggests that this is not always the case. In irregular conflicts it might be a politician, a key religious leader, a wife or family member. For example, in South Armagh, the key IRA leaders were respected members of the community, who regularly attended the Mass in their village churches. They were brought up by mothers and grandmothers who were married to, or descended from, Republican activists from previous conflicts. So the key initial issue is to identify whom the key decision maker is and what he (or she) holds dear.

Axiological Engagement requires a broad model of human behaviour, which should include most of the factors that influence motivation. One such model is Abraham Maslow's 'Hierarchy of Needs'. Although the Hierarchy of Needs has some limitations, it is sufficiently broad to be able to include all likely causes of human motivation. Maslow outlined five generic categories of need, which are satisfied by action: physiological needs, safety and security needs, love and belonging needs, esteem and status needs, and self-actualisation (self-fulfilment) needs. Maslow believed that it was

not possible to move up the scale of human satisfaction until the need below had been satisfied. Hence, a strict application of his model would insist that conditions for the lowest unfulfilled factor would predominate at any one instance. So, for instance, threats to life would be answered before threats to sustenance. However, for the purposes of Axiological Engagement, the categories are treated as being equally important. Within a particular category, analysis is needed to understand what kind of threat is likely to be perceived as hurtful, and which is likely to be the most effective. What real entities would, if threatened, motivate the enemy leadership to action?

So, in simple terms, action is carried out to threaten those things that the enemy leader holds dear. At the same time he is led to understand that if he acts in accordance with our wishes the pain will stop.

THREE QUESTIONS NEED TO BE CONSIDERED: WHAT TO TARGET, THAT IS, WHICH REAL ENTITIES; HOW TO ATTACK THOSE TARGETS; AND HOW TO MEASURE SUCCESS AGAINST THOSE TARGETS?

Three questions need to be considered: what to target, that is, which real entities; how to attack those targets; and how to measure success against those targets? Psychologists, psychiatrists and anthropologists, as well as members of the intelligence community, would provide an analysis of the character and traits of the enemy leadership. This points to a limitation of Axiological Engagement: it is unlikely that sufficient psychological expertise will be available at platoon level. But a battalion commander, say, may be able to deploy a psychologist to help engage with the key leaders in the villages in his companies' areas.

Axiological Engagement uses a three-step process to move from categories to concrete objectives; that is, to real entities that can be attacked or threatened. The steps are: personality analysis, geopolitical analysis and sociological analysis. Personality analysis looks at the personality of the relevant decision maker. What kind of personality is he? What can be said of that kind of personality? Geopolitics is just the geographical context of politics; so (in this context) geopolitical analysis looks at the local area, its governance and the local population, then considers which aspects relate to the key leader's behaviour. Sociological analysis examines relationships rather than objects and, specifically, the way the relevant individuals interact with each other.

Axiological Engagement requires the focused effort of a wide range of specialists, such as psychologists, anthropologists, intelligence specialists, police and civil servants (where they exist) and business experts. These people would be used to analyse the personality and behaviour of the enemy leader. That behaviour should be continually monitored to detect changes. Axiological Engagement is, therefore, a 'whole of government approach', which should help overcome concerns of purely 'kinetic' (that is, violence-based) planning. Axiological Engagement should encompass the widest possible range of security force activities. Indeed, it requires 'comprehensive' security force planning from the outset, which should be seen as a major advantage. That might include local political, humanitarian, media and financial activities. Axiological Engagement might not actually involve the use of violence, in some circumstances.

The premise of Axiological Engagement is to carry out actions that will affect the things that the adversary leadership holds dear. The process identifies those things in the real world and indicates how they should be engaged. Progress against those targets indicates progress in affecting what the adversary holds dear, and is to that extent a measure of effectiveness.

Axiological Engagement starts with a five or six column algorithm that could be drafted on one side of A4 paper. It would be expanded as required into the basis of the overall plan; however, it would also be summarised and kept to one side of one piece of paper in order to ensure the coherence of the overall approach. Indeed, a commander or politician should be able to look at the one-page guide and say 'fine; but tell me how does, for example, destroying 'Bridge B' put pressure on the enemy leader?' The algorithm would describe how we could detect progress in bringing pressure to bear on the enemy leader. To that extent, it is a measure of effectiveness. The overall plan would typically be many pages long and form the basis of tactical orders to subordinates.

AXIOLOGICAL ENGAGEMENT SHOULD RESULT IN CONFLICTS BEING CONCLUDED MORE QUICKLY.

Axiological Engagement should result in conflicts being concluded more quickly. The conduct of the campaign should be cheaper in economic or financial terms. Violent or non-violent activities should be focused much more efficiently, and hence economically, on the objective sought.

Axiological Engagement should also not only result in wars being cheaper in the long run, but also in retaining political support. It should be more obvious why violence is being applied or threatened. Axiological Engagement should be attractive to politicians, as it demonstrates why given operations are being undertaken. Examples include Special Forces raids or ambushes: why are they necessary and how do they affect the key decision maker's behaviour? Is killing a particular leader likely to affect the behaviour of others, or his successors? Therefore, using Axiological Engagement, it should be easier to generate and maintain political support, both domestically and internationally.

Most importantly, Axiological Engagement should be cheaper in blood, for instance in the lives of servicemen and women. There should be fewer 'friendly' casualties and probably fewer collateral civilian casualties as well.

Axiological Engagement seems to be relatively easy to teach. A trial was conducted with a group of MSc students, many of who were Army majors, but some were captains; some were civilians; and some RAF officers. It only took an hour or so of explanation to get them to carry out the basic steps of Axiological Engagement on an imaginary adversary leader.

In order to introduce Axiological Engagement, it would be necessary to re-focus psychological profiling. Although psychological profiling is currently carried out, it would need to be redirected to produce the outputs needed for Axiological Engagement. For instance, what does the enemy leader value, what would cause him pain, how is he likely to respond when those things are affected? How is he likely to respond to messages presented in different ways, for example overtly, covertly, threatening, cajoling or encouraging?

Secondly, existing doctrine would need to be rationalised in order to avoid duplication. It would need to be reorganised to support Axiological Engagement where necessary. One step would be to identify when, or if, Axiological Engagement is appropriate. A lot of existing doctrine would remain relevant because, in many ways, Axiological Engagement is a way of reorganising and redirecting existing thought. As one senior officer described it, Axiological Engagement contains nothing new, but is the best articulation of the overall process that he had ever seen.

Thirdly, Axiological Engagement should be introduced and taught at army schools and staff colleges. The emphasis should be that war is a human process and that we are aiming at the person in charge. This is more than merely rewriting lesson plans; to some extent it is a change of approach. As an aside, why would one *not* focus on the man in charge?

Finally, the process would need to be constantly refined with experience, whilst avoiding making the basic process too complicated. The essence of Axiological Engagement is something that can be described on one side of one piece of paper. If it cannot be, then we have lost sight of the overall process. Doctrinal process has a habit of getting longer and longer, and increasingly complex. That should be avoided wherever possible.

This article has outlined how Axiological Engagement could be used to coerce an adversary leader, and proposed a methodology for doing so. That methodology incorporates a mechanism for measuring effectiveness. It is based on the simple notion of attacking what the enemy leadership believes to be valuable. It includes a three-fold psychological, sociological and geopolitical analysis, which should be conducted iteratively.

Such a methodology offers the prospect of better-focused attacks and engagements. If conducted rigorously, it should focus intellectual effort and shape the application of both the violent and non-violent aspects of military engagement, in conjunction with other processes and tools.

Current doctrine lacks a simple and clear process for focussing violence and the threat of violence on the key enemy decision maker. Axiological Engagement offers such a process. It is straightforward, clear and above all easy to teach. We should consider adopting it now.
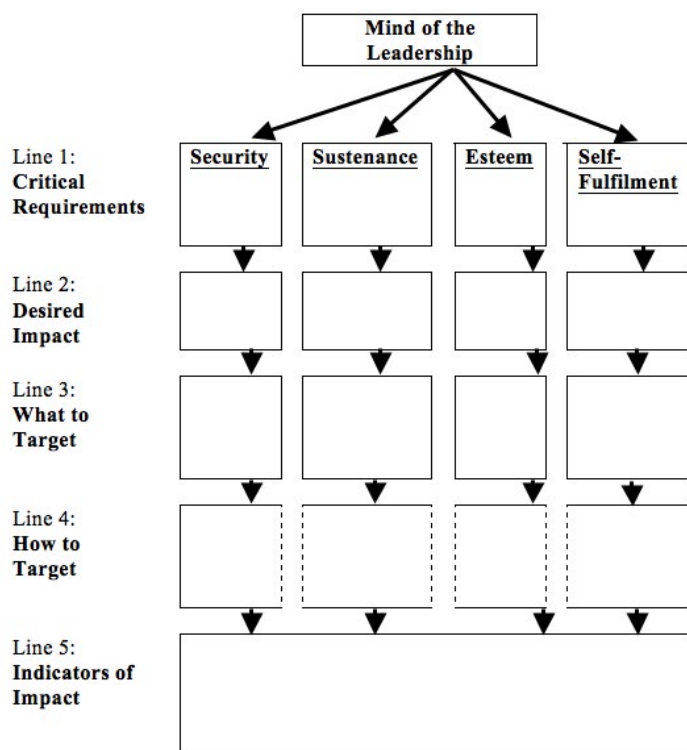
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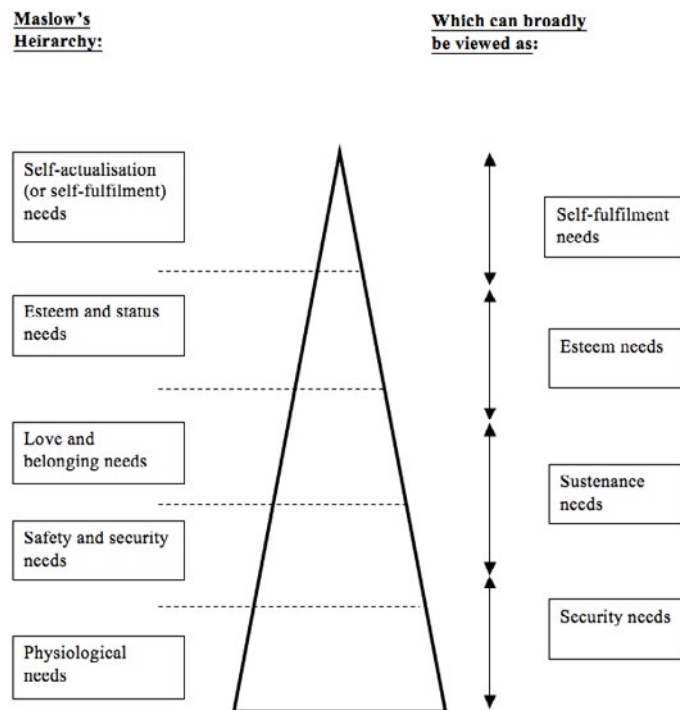
Maslow's Heirarchy Of Needs Adapted For Axiological Engagement

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Three Short Pieces

Jim Storr

These short pieces are written in response to articles that have appeared in previous editions of Military Operations. Underpinning each of them is a certain amount of research, operational analysis, or both. You may agree or disagree with them. If you disagree, please write in and tell us why or how.

Use it and Lose it

I thought William Owen's article on infantry fighting vehicles[i] was excellent, but missed a critical point. That is: if you give armoured carriers to the infantry, you cannot afford to lose them.

If you give armoured carriers to the infantry, their main purpose is to transport that infantry at more-or-less the same speed as the tanks in the all-arms force. Not necessarily at exactly the same speed in all terrain; but to enable the infantry to move at broadly the same speed as the armoured force, rather than on foot. Those carriers are armoured so that they can cooperate with the tanks. If they weren't, the infantry would have to debus at the first sign of small arms fire. That's not a showstopper, but it really slows down the tempo of the force as a whole. The big problem, however, is that you need to keep enough carriers to keep the infantry mobile.

> ### The big problem, however, is that you need to keep enough carriers to keep the infantry mobile.

That has simple consequences. Take two scenarios: attack and defence.

In the attack, the carriers carry the infantry onto, through, or to just short of the objective (the details vary with all sorts of things, not least national practice). Some carriers may get damaged or destroyed en route. Some of the infantry in those carriers will be killed or wounded, but the expectation is that more of it will survive to fight on the objective than if it was on foot. Now, in a well-handled attack with lots of indirect fire, good support from tanks, good coordination and well-selected routes that may be the case. In addition, it can all happen much faster than if the infantry was on foot. That's all good.

However, what happens when you give those carriers significant offensive weapons? Those weapons *will* be used; be it in the approach, whilst fighting through the objective, or on the reorganisation. That means exposing them. And that means that some of them will be disabled in the process. And each disabled carrier represents a section, or a command team, that has lost its mobility. Consider the traffic on the battalion command net:

> 'Well done on clearing that village and beating off the counterattack. Now mount up and be prepared to continue the advance.'

> 'Will do. Unfortunately, I'll have to leave a platoon or so behind to catch up on foot.'

In defence, if you give those carriers significant offensive weapons, they *will* be used. They will be used to engage enemy armour, or to assist in defeating enemy troops on foot. As before, that means exposing them. And that means that some of them will be disabled in the process. And each disabled carrier represents a section, or a command team, that has lost it mobility.

> 'Well done on defending that village and beating off the attack. Now mount up and be prepared to take part in the counterattack.'

'Will do. Unfortunately, I'll have to leave a platoon or so behind to catch up on foot.'

In both cases, there are four possibilities:

1. That you lose virtually neither infantry nor carriers.

2. That you lose some infantry, but no (or a few) carriers.

3. That you lose a few, if any, infantry; but proportionally more carriers.

4. That you lose infantry and carriers in roughly equal proportions.

If the carriers provide the infantry with mobility, then Option 3 is the one you can't afford. have. Unfortunately, if you mount significant offensive weapons on those carriers, then Option 3 is the most likely.

Armies don't have spare carriers lying around 'just in case'. The lesson is quite clear. Mounting significant weapons on infantry carriers means that those weapons will be used. Some carriers will be lost whilst doing so, and infantry's mobility will be reduced. And if you issue carriers to the infantry for mobility, then you can't afford to lose that mobility. So you can't afford to lose those carriers.

So Infantry Fighting Vehicles (IFVs) are a bad idea. They are, basically, armoured infantry carriers equipped with significant offensive weapons. The purpose of giving them those weapons is in order to use them. That means that some of them will be disabled, at times and places that leave their infantry stranded.

This is an observation from those massive force-on-force exercises on the North German Plain during the Cold War. Armoured warfare takes place at several kilometres per hour. The next engagement typically takes place several kilometres away. Troops moving on foot just get there too late. Therefore the infantry needs its section, platoon and company carriers. It can't afford to lose them. In the Second World War the Wehrmacht, if given a choice, would rather have recovered an APC than a tank.

TROOPS MOVING ON FOOT JUST GET THERE TOO LATE.

Some people say that you need IFVs to contribute to the anti-armour battle. There are better ways of doing that. They include: more ATGW; small cannon; longer-ranged LAW; indirect fire; mines; or more tanks. But don't confuse the need to kill more armour with the need for mobility for the infantry. The infantry are those who fight on foot. In an armoured battle they need to be taken to the fight. For that, they needs armoured mobility. And if you give them armoured mobility, you can't afford to lose it by having the carriers do someone else's job. IFVs are basically a bad idea.

It really is that simple.

Not a Snowball's Hope in Hell

Rupert Smith's article[ii] prompted me to think whether British forces today could repeat their actions in the First Gulf War, 20 years ago. In many ways they are better off today. They now have AS90 155mm self-propelled guns, rather than M109s. They had MLRS

then, but now they have Guided MLRS with the same sort of throw-weight as a M110 203mm gun, but much more range and greater accuracy. They have the much more reliable Challenger 2 MBTs. They have Apache attack helicopters, rather than the Lynx/TOW combinations which scarcely fired a shot in 1991. They have all sorts of improved digital CIS. And the headquarters …

Oh, yes, the headquarters. If you visit that same divisional headquarters on exercise today, you will find that much has changed, and much of it for the worse. The Plans cell is basically immobile, and the main command post takes 24 hours to strip down and move. On those grounds alone, British armed forces would be unable to repeat their actions of 1991. There was no way that the HQ could control the division during a long advance in contact, during which the HQ had to move several times and the plan had to be changed. It is simply too big, too cumbersome, and too slow.

IT IS SIMPLY TOO BIG, TOO CUMBERSOME, AND TOO SLOW.

Then I read the article on wargaming at the operational level by Kevin Benson and his colleagues[iii]. Let us read between the lines. The most powerful nation on earth sent several of its best military brains out to the Theatre HQ in Iraq. They engaged with the senior Theatre commanders for a whole week. The net result was a minor amendment to the theatre plan, and no evidence that that made any difference to the outcome in the real world. And the chief recommendation of the article is that large HQs should indulge in even more explicit process! Looked at in a different way, the HQ did not feel that it could do its job of campaign planning without even further augmentation. At the same time the HQ is full of relatively junior officers who aren't staff-college trained, so they can't really contribute to campaign planning.

What on earth were they doing there? What were their colleagues in the British HQ doing? Probably sat reading articles like this and then getting outraged that anyone questions the justification for them being there. Yet, scientists have analysed work patterns in modern HQs and concluded that many people do nothing useful, and a goodly number do things that are actually counterproductive.

A few years ago a colleague worked in a Coalition corps-level headquarters. Someone suggested that we should pay unemployed youths to clean up run-down urban areas. That way, they would have something to keep them occupied; the environment would improve and the feel-good factor would return; and the Coalition would be seen to be helping. Good idea! So the staff had a meeting about planning the meeting, then a meeting about briefing the briefers, then a meeting in which the decision was briefed to the decision maker. All that took five days.

ONCE YOU GET MORE THAN 200 PEOPLE IN AN HQ, YOU DON'T NEED ANY INPUT!

During that time one of the insurgent groups started to pay unemployed youths to clean up run-down urban areas. It immediately became a bad idea: the Coalition would be seen as playing copy-cat and catch-up. The HQ was simply far too big and had taken far too long to decide to do something simple. And why on earth did it take a brigadier general to make a decision that simple? The Danish

armed forces have made an observation that says that once you get more than 200 people in an HQ, you don't need any input! It just runs itself and makes itself busy. How true.

You might think that this doesn't matter. Well, in a sense it doesn't. In contemporary operations, it's just horrendously inefficient. Those HQs make mediocre plans that take unnecessarily long to formulate. Those plans are produced in orders that are inches thick and which few people read, let alone understand.

But just look out for the next time a coalition meets someone who can make simple, quick decisions and put them into practice equally quickly. It would be the 21st Century's equivalent of the Boer War in South Africa (1899-1902). All you had then was some intelligent, motivated, moderately well-led farmers with modern bolt-action rifles. It took the British Army years and a huge amount of trouble to deal with something so simple.

The problem of overlarge HQs did not taken place during the Cold War. There are all sorts of reasons for this. There are also a number of things that should be done to rectify it. But the biggest issue is to recognise that a problem exists.

Could British, or Coalition, forces today repeat their actions of 1991, with all their modern kit and all their digital command posts?

Not a snowball's hope in hell.

The Airborne Fallacy

One afternoon a few years ago I was looking out of my office window. About three miles over my shoulder there was a parachute drop zone (DZ) on one of our major training areas. In front of me I could see about eight or nine Hercules flying slow, low and level, one behind another towards the DZ. They were clearly about do carry out a battalion-level parachute drop. I went and watched. They did.

Dead meat.

How often have we seen insurgents on the TV news, with 'technicals' (utility 4 x 4 trucks) mounting 1950s Soviet-style antiaircraft (AA) machine guns or cannons? A bit of research tells us that a ZPU-2 twin 14.5mm AA machine gun weighs about 600kg. You often see them on the back of technicals. They have a practical combined rate of fire of 300 rounds per minute; a range against slow, low-flying aircraft of about 2,000m; and fire incendiary rounds weighing 60 grams each. The 'technical' can move at perhaps 40 or 50 kilometres per hour on roads or tracks. A ZU-23-2 twin 23mm AA cannon weighs about 950kg. It can also be carried, and fired, on the back of a truck. It has much the same range. Its rounds are high explosive fragmentation and weigh about 180 grams each. The ZU-23-2 has a combined rate of fire of 400 rounds per minute.

Imagine an irregular force in an undeveloped country at risk of airborne attack:

'Orders for the AA guns on seeing a number of transport aircraft flying low, slow, and one behind the other:

a. Do not delay. Whether on the move or static, get into action and engage as soon as possible.

b. Engage immediately the aircraft get into range.

c. Fire long bursts at the nose of each aircraft.

d. Do not worry about shooting aircraft down. The aim is to get rounds into the fuselage of as many aircraft as possible.

e. Once the aircraft have gone overhead or out of range, drive towards the drop zone. Fire long bursts along the drop zone if possible. Continue to fire as the paratroops land and as they gather on the ground'.

In this imaginary example, our battalion of Paras was lucky. Just two technicals were within range that day. Five aircraft were hit. The cockpit of one was destroyed. That aircraft crashed with the loss of all on board. Bursts hit the fuselages of two others. A few paratroopers were killed immediately, but in the carnage many were injured and none of them landed safely. One of the damaged aircraft limped home with its wounded Paras still on board. A couple of dozen Paras were killed or wounded as the technicals strafed the DZ afterwards. The Paras lost 97 dead and 161 wounded before they fired a shot. The Paras' medical platoon couldn't cope.

There is a lot that you can do to counter shoulder-fired missiles, but little you can do against technicals with heavy MGs or cannon. They are easy to hide, and can move frequently and quickly. In practice it would be very difficult to be sure that there would be none near the drop zone on a given day.

YOU CAN THROW ONE INTO THE BACK OF A TECHNICAL (OR EVEN A CAR) WITH SEVERAL DOZEN ROUNDS OF AMMUNITION.

However, our Paras' misery was not over. Have you ever seen a medium mortar? They are tiny. A 1950s-era mortar weighs about 40kg all up. You can throw one into the back of a technical (or even a car) with several dozen rounds of ammunition. Another technical can carry a couple of hundred more rounds. They have a range of 4,000 metres or more. Even if the Paras have the element of surprise and land before the AA gets them, mortars are a real challenge.

The Paras land and form a hasty perimeter. The Hercules will come back and land to extract them. Alternatively, their job is to secure a landing strip for the fly-in of the rest of the brigade. Either way, they need a landing strip several hundred metres long and there are only a few hundred of them.

A circle with a radius of 4,000 metres has a circumference of about 25 kilometres. You can fire a medium mortar from any small dip or hollow; or behind a few bushes; or behind a building. So our Paras have to control the whole of a perimeter 25 kilometres long. They move on foot, whilst the insurgents can throw the mortar into the back of a perfectly innocent-looking technical, drive it a few hundred yards, and be back in action in a few minutes.

'Orders for the mortars on seeing an airborne landing:

a. Deploy and fire the mortars singly, several hundred metres apart. Each mortar team leader is to fire on his own initiative.

b. Work out where the Paras will try to bring their planes in; watch for planes trying to land; or both.

c. Wait until a plane comes to a rest on the ground, then engage it quickly.

d. Fire only a few rounds at each plane. You don't have to destroy them; just damage them so that they can't fly off.

e. Move frequently. If the enemy engages you, move the mortar in the technical. Find somewhere else to come into action. When you get there, fire only if there are undamaged planes.'

120mm mortars are considerably bigger. They need a slightly bigger truck in order to tow them. But many forces have them, and their range is about 8,000 metres. That makes the perimeter about 50 kilometres. Mortars are pretty easy to locate if you have mortar-locating radar. That, however, doesn't normally come in on a parachute drop. Mortars are pretty easy to hunt down, if you have attack helicopters that can afford to stooge around doing just that. But, if you can deploy attack helicopters to the drop zone, why on earth didn't you land your infantry by a helicopter as well? Or by V-22 Osprey?

Jim Storr is the Editor of Military Operations

IF YOU CAN DEPLOY ATTACK HELICOPTERS TO THE DROP ZONE, WHY ON EARTH DIDN'T YOU LAND YOUR INFANTRY BY A HELICOPTER AS WELL?

Airborne forces are disgustingly vulnerable to the sort of 1950s Soviet-style threats that many insurgent forces possess; let alone more capable enemies. Since the Second World War, there have been many occasions when the ground threat has simply been too high to use them. There have been incredibly few occasions when airborne assaults were actually carried out. There were virtually no occasions when heliborne forces could not have been used instead. With the advent of the Osprey, there will be even fewer.

In real terms, airborne assaults are not an act of war. What they are in reality is a fallacious justification for the continued existence of parachute infantry forces. We pretend that we have parachute infantry forces so that we can carry out airborne assaults. We pretend that airborne assaults are practical so that we can have parachute infantry forces. Spot the fallacy.

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