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REVIEWS

ACCELERATING MODERNISATION

AM delighted to introduce this edition of *The British Army Review*. It follows on from two hugely significant editions earlier this year that celebrated two important anniversaries: 125 years of an Entente Cordiale with France, and 75 years since the founding of the world's most successful deterrent alliance, NATO. Both remind us of the signal imperative of strong alliances, allies and partnerships. And with a land war in Europe and the Middle East, these manifest bonds have rarely been more important.

Having taken over in June as the 22nd Chief of the General Staff, it is clear to me that we face a convergence of threats. And that time is not on our side. Russia, rearming and restocking, will continue to contest Euro-Atlantic security. Within a few years the Chinese could seek to realise their ambitions militarily over Taiwan. Iran, with deepening investment in nuclear weapons, conventional weaponry and its axis of resistance, will continue to divide its region. And North Korea's leader shows an undiminished appetite to sustain the militarisation of the Korean peninsula. All are dangerous individually, but as they converge at pace and scale, they could present an acute strategic threat from as early as 2027. This demands that we accelerate modernisation to meet a sharper timeline.

To mitigate these threats my vision for the British Army is that we field fifth generation land forces that set the joint force up for the unfair fight. These forces will lie at the heart of NATO and be filled with the best soldiers in the world. I have a bold ambition to double our fighting power in three years and triple it by the end of the decade.

Aspects of modernisation, delivered through our programme of record, is already underway and will give practical meaning to our recce-strike theory of winning. But it will take time before we see these new fighting systems, at scale, in our fighting formations. So, we must learn to make the most of what we have now. The Armed Forces of Ukraine have shown how this can be done. Over the last 30 months they have scavenged inventory and integrated old with new, iterated software hacks to mesh systems that deliver targeting cycles aided by machine learning, fought drone warfare at scale and pieced together a sophisticated layered air defence system. A predominantly land-based force has sunk ships and constrained the Black Sea Fleet to port. Therein lies credible deterrence, exportable international credibility, as well as prosperity advantage.

"We must learn to make the most of what we have now. The Armed Forces of Ukraine have shown how this can be done... they have scavenged inventory and integrated old with new, iterated software hacks to mesh systems that deliver targeting cycles aided by machine learning, fought drone warfare at scale and pieced together a sophisticated layered air defence system."

We must also change our mindset and fight and operate differently, viewing platforms as vessels that get the software to the edge. The big bet is on leveraging the booming technology sector, including the exploitation of artificial intelligence, as the catalyst for our modernisation. We need far greater computational power. And we need it to drive a robust multi-domain any/any digital network capable of connecting any sensor from any domain to any effector. This will create an internet of military things, capable of quickly, cleanly and efficiently integrating sensors and effectors from our sister services, allies and partners – as well as the latest advances in digital innovations – onto our existing platforms to gain decision advantage, increase our reach and master the kill-chain. Doing this while, at the same time, finding quick wins by refining our expertise in the traditional soldier skills of fieldcraft, skill-at-arms and tactical acumen is our best route to accelerated, effective, modern capability enhancement.

By focussing on modernisation, we will be better ready to give choices to government with a series of scalable forces that set the joint force up for the unfair fight, to act in advance of problems arising, to react quickly to cauterise crises if they arise, but ultimately to respond with strength if battle is called for. A land force that the nation, defence and NATO need. **– General Sir Roly Walker, Chief of the General Staff**

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FROM THE EDITOR

As an institution that jealously guards its myriad traditions and harbours a host of historical peculiarities (whether relating to regimental mascots, mess etiquette or differentiations in full dress), the British Army – at first glance – does not appear to be the optimal subject for modernisation.

Having pride in their forebears' past does not, however, make those in the UK's land forces Luddites or mean today's Army is ill-equipped to keep pace with technology's relentless and accelerating march.

Indeed, history unequivocally demonstrates the Service's ability to evolve. From horseback to armoured vehicles and muzzle-loading rifles to automatic weapons, British soldiers have a proven track record for adapting to major changes to the tools of their trade.

And this readiness to embrace emerging technologies and explore new ways of operating has been evidenced in abundance since the turn of the millennium.

It does not seem that long ago that, during my formative days working in defence, I was reporting on a trial of DIVE [Dismounted Infantry Virtual Environment] – a computer simulation, based on the game engine of a popular PC first-person shooter, that allowed troops to collectively rehearse their drills for fighting in built-up areas before swapping a classroom and keyboards for Copehill Down and blank rounds.

Was this early foray into digital deployments a military game changer? Perhaps not, but simulations and synthetic wraparounds have established themselves as a common feature of the Army's training arsenal and the capability to hone tactics, techniques and procedures virtually has been credited with saving lives on operations. This 'next generation' training would not exist without a willingness to experiment.

Perhaps more striking has been the advance and adoption of automation. I recall in 2001 being captivated by the sight of the Royal Artillery's Phoenix unmanned aerial vehicle [pictured above] being catapulted into the skies above Kosovo from the back of a launch support vehicle. But when considered in the context of 2024, it transpires the part played by Phoenix in the British Army's sprint to integrate drone technologies was as glimpsing

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as its take-off – blink and you will have missed it. The Service has worked tirelessly to be at the spearhead of sophisticated systems, with new additions to its 'drone' fleet proving as plentiful as the changes to the preferred nomenclature [unmanned, uncrewed, remotely piloted...].

Modernisation – either dictated and driven by deployments, as was the case with the raft of urgent operational requirements that were rolled out in Iraq and Afghanistan, or a product of pragmatic horizon scanning – is therefore not an alien concept for the Army. There are historic and recent case studies to serve as a handrail to delivering the Chief of the General Staff's intent and crucially, as documented throughout this edition of *The British Army Review*, plenty of work and programmes already well under way.

Integral to all that has changed and is set to change is, of course, those that serve. As stated by one of this issue's authors, there is a requirement to recognise "people as our point of difference – our soldiers are the Army". Whatever form modernisation takes, the human in the loop, the military mind being supported by artificial intelligence and the feet in the latest issue boots are ignored at the nation's peril. The Army needs, and will always need, people motivated, trained and willing to cross the line of departure for the benefit of others. A modernisation of the 'Army offer' that appeals to the modern soldier will be key to any futureproofing. **– Andrew Simms**

THE ARMY'S 'NEED FOR SPEED'

AUTHOR

Lieutenant Colonel Andy Seddon is an SO1 in the Army Strategy Branch and has been involved with the alignment between Army and Defence strategy and policy over the last 18 months.

This lead article describes the approach we have taken over the last 12 months to prepare for the Strategic Defence Review. As one of the chief architects of the work, I asked Lieutenant Colonel Andy Seddon to lay out in his own words how we have developed the Army's proposition and to illustrate the key elements.

In the article, he describes how 'accelerating modernisation' is a vital and viable means to deliver fifth generation land forces and highlights the importance we must place on technology and our people. It also focuses on our part in NATO's plans, how we will 'set up the joint force for the unfair fight' and the capabilities the Army must provide 'from' the land. This final point is a subtle change in language that I think is quite profound. It aims to turn our collective attention and thinking outwards rather than inwards; an altruistic approach to supporting our sister services and defence.

As we embark on this review, if we are to successfully argue the need for a strong land force, we must be aligned, as one, to the proposition. I commend Andy's article to you.
– Major General Paul Griffiths, Assistant Chief of the General Staff

THIS time last year the political commitments by both the incumbent and shadow Defence Secretaries made the prospect of a Strategic Defence Review starting in 2024 a certainty. This has provided an aiming mark to develop an Army Strategic Defence Review proposition that articulates to Government, defence and our allies why the Army is accelerating modernisation, how we plan to do it and where we need the support of defence. The underpinning theme of our proposition is the case for accelerating modernisation to meet growing demands placed on the Army and to realise the opportunity of accessible, and now affordable, transformative technology. This article explains the approach taken to develop the Army's proposition and it explains the proposition components that contribute to modernisation.

OUR PROPOSITION APPROACH

Deteriorating security conditions, growing demands placed on the Army and the Government's fiscal outlook are a challenging start point for any strategy but they are arguably the clearest set of pre-review priorities for the Army in any recent cycle. Despite the change of government, Russia's threat to Euro-Atlantic security is unanimously felt giving us consistent policy demands to plan against. Indeed the last Government's July 2023 Defence Command Paper and the guidance given by this Government to the Strategic Defence Review have both framed NATO as

defence's greatest priority. In all outcomes the Army must play a central role given the scale of the land force element in the UK's warfighting offer to the NATO Force Model.

Notwithstanding this NATO emphasis, our proposition has been built around a broad framework centred on defence's extant priority outputs.[1] These provide the foundations for the proposition's key elements and headline narratives, which in turn have provided guidance for a series of important work strands sequenced to deliver in line with the Strategic Defence Review. These include force design work under Project Wavell, development of a series of people measures, work on the land industrial strategy, and work on our strategic affordability.

DELIVERABLE AND AFFORDABLE FORCE DESIGN

The force design recommendations made by Army Futures, under Project Wavell, have consciously avoided setting distant, high fidelity, headmarks which the past has shown to be difficult to deliver and vulnerable to changing strategic context. The force design underpinning the proposition has been based on the demanding headmark of a corps and two battle-winning divisions as defined by the NATO Force Model. However, this will be taken forward through high and low confidence assumptions and achievable force design bounds. Our Land Operating Concept is fundamental to this approach by providing guidance to re-balance investment to anticipate change within our means.

Balance of investment decisions taken by the Executive Committee of the Army Board since 2023 have increased investment in the '4+1' capabilities of long-range fires, ground-based air defence, electronic warfare, autonomy and logistics. This and detailed structural recommendations are examples of the iterative approach in action.

Our future affordability has also been central to our proposition development. It has included work to baseline our current position from which to consider investments and disinvestments. Although important, this is not sufficient on its own to identify an affordable path to meet the urgency of the threat and our growing outputs. As the Chief of the General Staff has described, this challenge requires us to pursue the growth potential of our lethality and fighting power. By delivering the Land Operating Concept, modernising and embracing digitisation, there is potential to double our fighting power by 2027 and meet the demands placed on the Army.

An Army that fights from the land – a strategic anchor for multi-domain operations, enabling, integrating and fighting as part of a joint force alongside allies and partners.

The Land Operating Concept and lessons from Ukraine show how modernised land forces with enhanced lethality in stand-off capabilities, dispersed and fully integrated, can be the strategic anchor for the joint force. In the near future the Army will be capable of overcoming two critical challenges facing the joint force. Examples include the combination of long-range precision fires and a joint intelligence, surveillance, target acquisition and reconnaissance and fires network allowing the Army to play a critical role in degrading adversary anti access/area denial as a prerequisite for air and maritime operations. Similarly, our planned investment in ground-based air defence, and the potential of land-based, deployable, ballistic missile defence will allow land forces to play a vital role in the survival and freedom of movement of the joint force. Joint land-launched hypersonics capability also offers an opportunity for a paradigm shift for the joint force and deterrence. Land-launched hypersonic flight characteristics, coupled with dispersed and concealed launch methods, are very hard to counter and would dramatically change our own ability to deter through anti access/area denial.

These opportunities are informing our investment decisions and build a strong case for additional investment to defence. In the meantime, the Army will be configured to provide the right mix of responsiveness, capability and size; all equipped with long-range find and fires, air defence and processing capability to enable the joint force:

- **Advance forces.** Unique capabilities already in place in the Euro-Atlantic and

[1] *1. Protect the UK, Dependencies and OSTs & contribute to the collective deterrence of the EA through NATO, 2. Pursue a campaigning approach to counter threats from state and non-state actors, working with allies and partners, 3. Promote our interests globally, building influential relationships and maintaining engagement and access, 4. Secure strategic advantage, achieve greater economic and industrial resilience & contribute to national prosperity.*

around the world to confer strategic depth and persistent positional advantage. Sitting within the threat rings alongside partners, advance forces will be configured to sense and track adversary anti access/area denial capabilities and effect on call. Forces include the Land Special Operations Force or the enhanced Forward Presence in the Baltic states.

■ **Reaction forces.** Light forces designed to react quickly to cauterise crises when they flare and act as a platform for the joint force. They will be able to act as a platform and multi-domain enabler through an enhanced ability to sense, analyse and deliver effect across domains. Reaction forces will be configured to degrade adversary anti access/area denial, which is a pre-requisite for air control and successful follow-on operations. They will provide sovereign and allied rapid response, and include the balance of a brigade for the forward land forces in Estonia.

■ **Response forces.** Response forces will be optimised for high intensity warfighting at scale and at the heart of NATO within a joint and multinational force. Response forces will be able to deliver effect for joint force at different echelons of effort, from group, division to corps.

■ **Resilience and regeneration forces.** This new homeland-based capability will be designed to generate forces to match the demands of warfighting and national defence and resilience.

An Army that fights on the land – the world-class army that NATO is asking for and that the UK needs.

The 2023 Vilnius Summit saw NATO Leaders approve a new generation of regional plans that are intended to provide the required coherence between collective defence and allies' national defence planning.[2] Fundamentally this aims to make sure allies can provide the right forces at the right time and place, to deliver greater responsiveness and deterrence. The Army plays an important role in this by delivering against NATO's increasingly specific planning in its force design. In the first instance this means implementing the UK's land commitments to the NATO Force Model. The NATO Force Model is delivering a larger pool of combat credible forces assigned to regional plans at an increasing scale of responsiveness, largely through the delivery of the Allied Response Force.[3] Secondly, we must also demonstrate

"Cheap autonomy and sensors offer the opportunity to sense and see on a huge scale."

support to the capability targets NATO sets through the National Defence Planning Process. For the first time these targets are informed by the requirements of the regional plans, as well as established measures such as NATO's current inventory, member state gross domestic product and population size.[4] This has seen the capability targets for land manoeuvre formations across the Alliance increase by 150 per cent whilst targets have been reduced elsewhere, underscoring the value NATO currently places on land power. Using NATO's Burden Equivalency scoring this will see the Army shoulder 75 per cent of the UK's capability target from next year. Our current commitment to the UK NATO Force Model offer can also be framed through our force configurations:

■ **Forward land forces (*advanced forces*).** Including a battlegroup as the enhanced Forward Presence in Estonia that can be reinforced with to a brigade-sized formation (termed Forward Land Forces). This commitment will evolve over time (for example prepositioning of stocks) as Land Command's Forward Land Forces concept matures.

■ **Allied Reaction Force (*reaction forces*).** From July 2024, for 12 months, we are providing 1 (UK) Division as the first Land Component HQ for the new Allied Reaction Force, along with a light infantry brigade combat team (7 LBCT) and aviation taskforce, with multi-national contributions from across the Alliance. In 2026 the Army will also lead the NATO 1* Allied Reaction Force Special Operations Task Force, which will align Army Special Operations Brigade activity to NATO Joint Force Command regional plans to further integrate Joint Special Operations Forces into the heart of NATO.

■ **Strategic Reserve Corps (*response forces*).** The Allied Reaction Corps with 3 (UK) Division to be a multi-national warfighting corps conceptually configured and geographically placed to respond across the NATO joint operations area as one of Supreme Allied Commander Europe's two corps-level Strategic Response Forces. It is assumed the UK will provide the interim capability from 2024 and to build over time.

The convergence of the Deterrence and Defence of the Euro-Atlantic Area regional plans and the NATO Defence Planning Process is driving land manoeuvre capability demand beyond the NATO Force Model requirement. Without additional funding NATO sets us a significant challenge but it is not one that can be dismissed. In response our proposition offers defence a viable means to close this gap, support conventional deterrence in the Euro Atlantic and maintain UK leadership within the Alliance. Our proposition will describe the impact of our imminent modernisation programme, and a force design approach that is refining structure and capability choices to enable maximum NATO 'book value' by identifying how 85 per cent of the deployable Army can contribute to our NATO targets. We have also maintained clear focus on how Reserve forces will be central to our NATO offer, and how the Army will generate echelon forces at scale, both vital to warfighting credibility and deterrence. But of equal if not more impact is a way of fighting and operating as defined by the Land Operating Concept. This will arguably be of more importance to the successful implementation of Deterrence and Defence of the Euro-Atlantic Area regional plans than simply meeting capability targets.

An Army that fights and operates differently – rapidly integrating technology at every level to multiply lethality, mass and effect.

Our Land Operating Concept has provided an enlightened and authoritative force design aiming mark that can be evolved through lessons drawn from Ukraine. The Chief of the General Staff's challenge for us now is to realise the opportunity of readily available technology to make an Army that can fight and operate differently to multiply lethality and our fighting power. Some of these opportunities have been spoken of in the past and we have focused considerable attention on the barriers. But we have also witnessed the cost

[2] *Vilnius Summit Communique issued by NATO Heads of State and Government, 11 Jul 2023.*

[3] *NATO HQ, 'Deterrence and defence', NATO 1 Jul 2024.*

[4] *'NATO Defence Planning Process', NATO 31 Mar 2022.*

and accessibility of this technology changing dramatically. Cheap autonomy and sensors offer the opportunity to sense and see on a huge scale. Onshore, we already have the artificial intelligence technologies to process the volumes of data these sensors will gather to generate fast, precise, decision advantage. When coupled to the range and precision of our modernised fighting platforms and new effectors, and with the right support from defence, we can multiply effect and lethality to a sharp timeframe.

Delivering this will mean putting innovation, research and experimentation on a campaign footing. It will require collaboration with industry as mission partners at all levels of command. The new Land Training System (see pages 14-17) will play a key role in enabling this and is being built to grow technology driven lethality through combined arms competence. It aims to be an engine for spirally developing fighting power and develop a different skillset for our commanders. Battlefield transparency has already created the reality that templated tactics and the employment of technology will be quickly understood and ruthlessly exploited if repeated. This means our commanders must understand the employment of technology and tactics. They must be capable of innovating alongside technicians to solve shared problems faster than the adversary.

The opportunity to fight this way has been much talked of in the past but its commercial maturity and cost now make it a reality. If our conceptual and training approach delivers, successful delivery concerns a new approach to defence acquisition which we are engaging on.

An Army that enhances society, cohesion and resilience – fortifying the fabric of the nation and its collective resolve.

There has been a paradigmatic shift in the threat to the homeland. Across defence and Government, there is greater planning commitment to be pursued through a National Defence and Resilience Plan in 2025. We will continue to make the case that in the past and in the future the defence of the UK is best delivered through a strong and credible NATO and forward deterrence. However, we must also concede that a vulnerable homebase cannot be tolerated and could threaten our ability to project force. In response, our proposition is developing options to help expedite emergent UK national defence intent by enhancements to the well-established Standing Joint Command and Home Command. These commands can act as a proven framework integrator for military and wider government agencies to respond to escalating threats. This will be considered as part of cross-government planning in 2025.

Linked to this resilience work are plans to include a regeneration function within the Army's future force structure. We are developing plans to support generation of second and third echelons to build credibility within our warfighting offer. The regeneration function will draw on extant but arguably dormant methods for mobilising Reserve forces and generating mass.

An Army that is resilient, built upon collaboration with industry – benefiting UK prosperity and reinforcing operational independence.

Over the last nine months our Land Industrial Strategy has considered how we can better assure industrial resilience through sector-specific strategies that prioritise operational independence in critical areas.[5] We are seeing building demand amongst our allies who are also seeking to regrow capabilities, and this is being coupled with the production needed to maintain Ukraine in the fight. The need for collaboration and integration with UK industry has therefore become an acutely important element for rebuilding our fighting power and resilient supply chains. Our proposition will include a range of Land Industrial Strategy packages. One package will seek to support building greater capacity for munitions production, dismounted weapons and ordnance. Another will seek to develop a ground combat system sector founded on a 20-year pipeline of investment to support spiral development, Land Integrated Operating Services and research and development investment for next-generation systems.

Our collaboration with industry is a vital part of our proposition and will need the continuing support of defence and government. It comes with the offer of growing Army export ambition, to support national prosperity, and

[5] *DSIS defines Operational Independence as the ability to protect the sensitive technologies and supply chains that underpin warfighting capabilities from external political interference.*

the generation of skills and investment into UK industry. A priority will be better enabling rapid innovation through incentivising industrial participation and private investment.

An Army that harnesses the exceptional talent of our people – enabling, inspiring and optimising the force.

Over the last year the Army's people-related change initiatives have been consolidated to recognise people as our point of difference – our soldiers are the Army. These seek to make more of people and do more for them with an enabling human resource system. We have an important point to make to our new government to make clear how this approach has significant net national benefit that goes beyond established evidence of the social mobility and lifelong upskilling offered by an Army career.

It is true to say that now, where our sister services resource platforms with people, we resource the solider with software and systems. Over time Army modernisation and the integration of technology will reverse the paradigm. This will demand more of people coming into the service and once in service a very new approach to the optimisation of performance. In terms of delivering this we have nascent plans to partner with industry to provide technical upskilling prior to service, and leadership and military training in service. In service, a new approach to performance optimisation will be pursued to enable our people to be the digital integrators who will be fundamental to increasing our fighting power principally through the use of data. There is opportunity to build a compelling logic for seeking a career in the Army and to be retained for continued skill investment. It has the potential to grow our social mobility offer from a point of established strength.

"The Army's people-related change initiatives have been consolidated to recognise people as our point of difference – our soldiers are the Army."

CONCLUSION

As we approach what will be a 'root and branch' Strategic Defence Review, our proposition to it advocates the Army's plan to deliver what the nation needs, and NATO wants. It has an eye firmly on the past, the present and the future, and balances financial realism whilst acting on the opportunities of technology. Previous UK strategic reviews have been judged to often fail by using fixed strategic hierarchy whereby policy objectives are set leaving strategy to sort out how they are delivered without sufficient means.[6] Equally, our approach is firmly aware of the challenges the Army has faced in delivering against the decisions of previous reviews and long-term force design headmarks. To support defence in avoiding these pitfalls, our proposition makes clear what accelerating modernisation can deliver within our current plan, along with a series of developed opportunities explaining where we can go further to grow the integrated force and deliver our NATO offer. Our approach to modernisation and the integration of targeted, readily available, technology will allow us to fight as per the Land Operating Concept. This offers the opportunity to generate fifth generation land forces and double the fighting power of today's Army by 2027 and potentially triple it by 2030.

Our proposition describes how technology is changing the contribution land forces can make to other domains, and how the Army will make a crucial contribution for multi-domain, integrated warfighting. It describes the importance of land capability to NATO and how our approach to force design and modernisation is reversing the UK's poor previous performance against NATO capability targets. This approach is vital to building a credible warfighting offer to the NATO Force Model and better delivering land capability for NATO's capability planning process. This will be underpinned by the next steps with our Land Industrial Strategy to drive a shift in our approach to procurement, support and exports, to re-establish or develop new industrial capabilities and onshore manufacturing pipelines. And of course this will ultimately be enabled by an approach that harnesses the talent of our people, through a series of people-related change initiatives in chain and being developed.

[6] *Sir Hew Strachan, House of Lords written evidence 'Delivering UK strategic coherence' committees.parliament.uk/writtenevidence/126662/pdf*

MULTIPLYING LETHALITY

AUTHOR

Brigadier Mike Cornwell has been Head of Future Force Development in the Army HQ since August 2023 and has commanded at all levels from platoon to brigade.

"God is not on the side of the big battalions, but on the side of those who shoot best." –**Voltaire**

WHEN we fight, we will do so with the land force we have. That 'when' is a standing uncertainty; geo-politics are febrile and technology is advancing rapidly. Consequently, there is an imperative to modernise as efficiently and expeditiously as possible. (I choose those two adverbs carefully; 'expeditiously' implies efficiency, but the latter is sufficiently important it merits spelling out). There are multiple constraints on our ability to do so but modernisation is non-negotiable if we are to compete and win.

ENDS

Put simply, the purpose of modernisation is to increase the Army's lethality and, by extension, its competitive edge. To that end, the Chief of the General Staff's intent is clear: be twice as lethal in three years and three times as lethal in six. However, becoming ever more lethal is not in itself revolutionary. Sharpening our edge is literally the purpose of force development – the process encompassing conceptual, capability and warfare development (optimisation) which seeks to build the three components of fighting power over time. The difference here is in the speed with which we must move in order to beat the twin ticking clocks of threat and technology.

Notwithstanding the inherent simplicity of the Chief of the General Staff's intent, there remains a risk of distraction by semantic debate. Our doctrinal lexicon carries multiple, well-worn ways of assessing and expressing our ability to prevail in combat; not least *Fighting Power* and *Combat Effectiveness*, both of which traditionally feature heavily in force development and operational analysis. In contrast, the notion of lethality is helpfully specific and is output, rather than input, centric. In short, it is the Army's capacity to inflict force on the enemy; the ultimate expression of the

Technological take-off: Two of the Army's Apache AH-64Es support ground troops during Exercise Swift Response in Estonia earlier this year.

"We will have to exploit all avenues from uncrewed air systems to artificial intelligence and better armour to long-range precision fires, but there is no 'tech golden bullet'."

physical component of fighting power – a combat system that also needs to find, decide, protect, sustain and manoeuvre. There is a balance to be struck here.

Lethality can be broken into three dimensions: time, space and force. Doing so gives us a framework by which to establish a baseline and measure performance, and on which to hang lethality interventions. In terms of time, we should consider: speed of the force into action as well as speed of target to effect, time on target (which will impact on sustainment), and the speed of transition between tactical actions – tempo. Space speaks to increased ranges and frontages and the persistence and speed of physical reach. And there are three principal considerations when it comes to force: munition and effector survivability and efficacy on target, force density versus effect, and that universal conundrum – magazine depth.

There are two other things worth considering. The first is 'exponential combat benefit', as expressed in the current *Recce Strike Tactical Doctrine Note*. The other is utterly fundamental and is the impact of the other two thirds of the fighting power equation (the moral and conceptual components); in particular the centrality of combined arms training.

WAYS AND MEANS

Given the purpose of force development is to make us more lethal (whether expressed explicitly in those terms or not), it is important to note this is not a cold start. Our programme of record is packed with capability enhancements – new and improved equipment and platforms – all of which are being procured with enhanced lethality in mind. To list a few examples: Challenger 3, Ajax, AH-64E with joint air-to-ground missiles, Guided Multiple Launch Rocket System Extended Range (precision strike missile), 120mm hinged mortar – the list goes on. The equipment programme of record is anchored in the Force Development Programme that flows from Project Wavell – ongoing work to design a force capable of winning in the way described in the Land Operating Concept, and which is being shaped by the capability deductions drawn from Project Velocity[1] and the demands of our commitments to NATO and national security.

All of this, while crucial, can make the debate very equipment-centric. We will not compete and win without access to the most effective means by which to find and strike the enemy, sustain ourselves, survive, dominate the electromagnetic spectrum and prevail in the information domain. We will have to exploit all avenues from uncrewed air systems to artificial intelligence and better armour to long-range precision fires, but there is no 'tech golden bullet'. The challenge is pan-Defence Lines of Development. Simply procuring new equipment and software and enhancing existing systems and platforms will not, in itself, automatically make us more lethal; not least because our adversaries are advancing in parallel. Alongside better means, we must have better ways: combined arms training, which breeds competence and confidence, and responsive, intelligent doctrine which begets common understanding. And underpinning those ways and means must be a unified whole force approach, hinged on productive relationships with the other domains, allies and partners, the global science and technology community and defence industry.

One of many drivers behind the Chief of the General Staff's 'double, treble' intent is recognition of the length of time it can take to procure and field major capabilities, whether they are new (to science, or at least to UK defence) or simply iterations of existing systems. Many totemic enhancements such as Challenger 3 and Medium Fires Platform will be fielded in the 'treble' timeframe (2027-30) and no amount of wishful thinking will bring them forward, albeit there is bold and imaginative work in train to mitigate the gap. Our immediate focus must therefore be on what else can be done – rapidly – in the 'double' period (the next three years).

To that end, we have initiated five complementary lines of effort across the Army HQ and the Field Army. The first is examining the Army Operating Model to ensure the force development circuits – the flow from concepts through experimentation and force design to capability delivery – are optimised for the challenge. The second is examining, and ultimately enhancing, the Army's relationship with the global science, innovation and technology network; exploiting burgeoning developments in defence's approach to

[1] *The extrapolation of applied warfighting concepts, with the commensurate doctrine.*

innovation, building bridges aimed at crossing the procurement 'valley of death',[2] and placing our own experimentation on a campaign footing. The third is examining rapid acquisition for the Field Army. This is the ability to procure readily available battle-winning capabilities at the speed of relevance, and is crucial to responsive and effective warfare development (force optimisation). If what is needed is available without sovereign research and experimentation or ab initio capability development, we should be able to access it by the most efficient and rapid means. The fourth, led by the Field Army, is seeking to exploit training (and some operational) activity as an engine for capability change. And the fifth will be one of many foci for the new Field Army Modernisation Task Force; the harnessing of disruptive technology at the speed of relevance.

Disruptive technologies are key capabilities, common to all futures, that offer a significant lethal advantage at relatively low cost – setting the joint force up for an unfair fight. They adapt and evolve rapidly, with threats and countermeasures evolving at a similar rate. Readily available for acquisition now from multiple commercial sources, their advantage comes primarily (although not exclusively) from software, not hardware.

Genuine expertise in disruptive technology is rare in the 'green' Army, and accelerating acquisition without the requisite knowledge and understanding increases the risk of failure. Knowledge and understanding are most effectively generated through a rapid cycle (six to 24 months per iteration) and, optimally, with industry integrator(s) in close support. Prototype capability is developed 'hand in glove' with expert users, the parameters of competitions and contracts are built in sight of feedback and lessons from operational theatres, and the commercial market is subjected to persistent survey.

Despite the advantages inherent in this process, there is risk in moving at speed to acquire new capability. Mistakes may be made, and technologies (and threats) will evolve at an increasingly rapid rate, demanding a responsiveness commensurate with that around electronic countermeasures and counter-improvised explosive device measures at the height of Operations Herrick and Telic. If anything, this underscores the importance of agility, flexibility and resilience (noting our traditional approach tends to bind the Army or defence to a company or companies for a decade or more, generating capability with an in-service life of 20 years plus). The acquisition of disruptive technology must therefore be iterative; informed by continuous research, experimentation and trialling. It must be supported by flexible commercial structures that use short contractual timelines, avoid vendor lock-in and pursue scale in a disciplined manner that allows for mistakes and dead-ends. It should also support a cycle of feedback from users and operational theatres to optimise fielded systems while concurrently supporting the development of subsequent iterations.

To meet those principles, mitigate those risks and move as quickly as possible to fielding at scale, we are in the process of establishing a Disruptive Technologies Office, to work to Commander Field Army in delivering the four most pressing capability enhancements. These are: robotic and autonomous systems (RAS) at battlegroup level, including weaponised first-person view drones, artificial intelligence (AI)-enabled decision support and targeting systems, novel deep effects (one-way effectors and launched effects) and high altitude intelligence, surveillance, target acquisition and reconnaissance. The first three of those capabilities are already the subject of extensive experimentation and trialling, hand in glove with Field Army users, and all four will contribute significantly to the multiplication of our lethality when fielded over the next 24-36 months. For example, the Battlegroup RAS Programme will treble the range at which a manoeuvre battlegroup can find and strike the enemy; from 3-5 kilometres now to 10-15 kilometres. AI-decision support systems like *Black Opal* will more than double the speed of decision making and dramatically increase tempo as a result.

These interventions, and others, will meet the Chief of the General Staff's exhortation to: "Leverage the booming technology sector... exploit AI... [and] drive a robust, multi-domain any/any digital network, capable of connecting any sensor from any domain to any effector." They are by no means the totality of the Army's efforts to become more lethal, but they are technologies that can be developed spirally and extremely quickly, are available now, are comparatively cheap and are highly effective. When set alongside other imminently available systems such as 120mm Mortar, AH-64E with joint air-to-ground missiles, precision strike missile (and many others), the lethality picture in the immediate future starts to look very bright indeed. Looking further ahead to the 'treble' period, the advent of systems such as Challenger 3 completes the picture of fifth generation land forces – NATO first and first in NATO – fighting on and from the land and setting the joint force up for the unfair fight.

CONCLUSION (AND CALL TO ARMS)

In *Defeat into Victory*, Field Marshal Viscount Slim's epic account of the Burma Campaign, he recalls advice he received from a sergeant major when he (Slim) was an officer cadet. "There's only one principle of war and that's this. Hit the other fellow as quick as you can and as hard as you can, where it hurts him most, when he ain't looking." That sergeant major wasn't wrong. Warfighting demands a collective competitive spirit and will to win that must be forged before battle is joined. For us, the moment is now. The Chief of the General Staff's intent is clear – be twice as lethal by 2027 and three times as lethal by 2030 – and it's incumbent on all of us to work to that intent.

[2] *The treacherous gap between Technology Readiness Level 6 and 9. In lay terms, the difference between an experimental technology (relatively easy to develop) and an operational, fieldable technology (relatively difficult to achieve).*

MODERNISATION TO SET THE TRAINING CYCLONE SPINNING

AUTHOR

Lieutenant Colonel Fraser Dowling is Head of Establishment and commanding officer of the Support Unit in Worthy Down.

It is axiomatic that we want to make our Army better. But to do that we need to think both about what skills, competencies and behaviours we need to prevail on the 21st century battlefield, and also how best to build them in an era of accelerated human development. In the Land Training System (LTS) our Army has developed a peer leading methodology to square the circle and this excellent article explains LTS, what we must do now to exploit it fully and how best to do that. It also highlights the role of the Adjutant General's Corps Educational and Training Services' Learning Development Advisor [that of the author], a unique and quite brilliant military capability, as the critical enabler in this endeavour. – **Major General Chris Barry, Director Land Warfare**

THE British Army is currently the smallest it has been in modern times yet is at its busiest, facing increasing levels of operational complexity whilst having to maintain a higher level of readiness than ever before. Despite these challenges, the Service remains a highly capable and professional force, but evolving security threats and ever-present fiscal pressures necessitate new approaches to make the most effective and efficient use of our military capability. These are taxing times for many reasons, but fear not the cavalry has arrived – this time literally, and accompanied by the infantry and all the other elements of the combined arms battle – with the launch of the Land Training System (LTS).

For the uninitiated, LTS will cultivate the sub-unit level with a wide range of skills and is partitioned into three development phases: Tradewind – which will hone the competencies of troops to make training more self-sustaining; Cyclone – the building of teams in which sub units can train together to master individual and collective skills; and Storm – which constitutes the scale and mass of 21st century fighting. At its root the LTS enables realistic serials which integrate military functions in a way that not only replicates how they fight together, but enables the most contemporary of threats to be included in the training and encourages the kind of battlecraft innovation required to address the changing character of conflict. Whilst supported through a plethora of focused elements including the use of simulation, virtual training and classrooms, the vital ground is the annual cadence of combined arms manoeuvre activity known as Cyclone. Never has the requirement for excellence in our trained soldiers been so strong and the creation and development of the combined arms manoeuvre competency through Cyclone will empower commanders at the sub-unit level to get the very best out of our soldiers as a collective.

However, standing in the way of progress is a training realm that has grown unwieldy over the course of many years, with entrenched inefficiencies and mindsets that have become fixed – particularly in the development of training in which the interpretation of policy

(Defence Systems Approach to Training) has led a once well-resourced and thriving industry to a place in which it is no longer viable in its current form. Organisational structures that have evolved over time (as opposed to being designed around their current function) often unhelpfully separate key aspects of the training development pipeline (in both geographical and organisational terms), which exacerbates our inability to fully resource the necessary development. These structures and systems also impact training delivery in which we find substantial complexity and crossover; the Land Warfare Centre which sits at the very heart of the LTS is responsible for more than 1,500 training courses spread over 35 delivery organisations located across the country.

Clearly reform is required and, whilst it won't provide all the answers, this article will start to unpick at the knotted tangle that could hamper LTS implementation. With a focus on generational modernisation, the LTS necessitates a modern approach across all training aspects; conduct of training, how it is tracked, how it is developed and how it is measured.

CONDUCTING AND TRACKING THE TRAINING

With the soldier at the heart of military capability, the requirement for innovation within the contemporary operating environment (including rapidly evolving threats) – coupled with resource constraints – make the need to create superbly trained soldiers[1] greater than it ever has been. The LTS addresses this through an ambitious cadence of activity in which the sub-unit driven Cyclone is the vital ground. What can be done on Cyclone must be done on Cyclone, empowering commanders to lead on what is trained and how. There may well be aspects of tactical activity requiring rehearsal (including at a specialist, Tradewind, level), but the point of LTS is not to re-brand predictable main events lists and exercise mindsets that are comfortable and familiar (as BATUS may have been for many – if you feel uncomfortable reading such assertions then I'm afraid this is aimed at you); modern conflict is likely to be neither. The opportunity must be seized to inspire the next generation of sub-unit commanders to test and perfect innovative approaches at the enterprise level that will be required for success on future battlefields; the LTS must encourage innovation in warfare through empowerment in which appropriate delegation and trust is key to the success.

However, the means of enabling empowerment through Cyclone requires careful implementation to ensure the system does not deliver a large distributed training burden to the Field Army. In order to be effective, the LTS must support/deliver:

- the coordination of events so that units and formations focus on planning and executing the training they require; and
- a mechanism that enables the full, unhindered development of currency and competency down to the level of each individual soldier in a way that is tracked/measured.

To capitalise on the talent of our soldiers we must allow fixed mastery/variable time and not be wedded to old or illogical rules.

The current approach to training focuses on average attainment and struggles to deal with the differentiation present in trainees, some of whom possess natural propensity and talent, while others boast prior relatable experience. The creation of creative thinkers requires an approach that does not stifle progression and encourages those who have talent to progress quickly and to do so where it benefits the output/capability. It follows that our new modern and optimised approach must not be allowed to hold progression back due to factors such as course lengths or delay the progression of military capability at an individual or team level where some hold the 'wrong' rank. Implementation of the LTS is the ideal opportunity to fundamentally change to an approach that allows for a fixed mastery, but variable time, to maximise the exploitation

[1] *The requirement is not just about soldiers, but all Service personnel operating in the Land domain; the Land Training System also creates opportunities for the Royal Navy and RAF (especially in joint training establishments within the Army TLB).*

of the talents of our soldiers. Arbitrary rules that hamper soldier progression and, therefore, progression of military capability (including de-coupling courses from promotion where possible) must also be challenged.

Safe and effective training is vital so the system must be able to track individual competency.

Of course, to operate effectively and safely, soldiers must be trained safely and effectively. To ensure this is the case there needs to be a robust system in place that can track not only collective training achievements, but also the attainment of individual soldiers in terms of their knowledge, skills and experience. Deficits in an individual's training must be clear and known by those they operate with so that no unnecessary risk is introduced – noting the combined arms manoeuvre training environment is already a risk-rich environment involving unavoidable, inherent (some of which is deliberate) risk to mitigate the dangers of operating for real. It is the ability to monitor and record differentiated training that has hitherto compromised our ability to realise the rewards of the seemingly-utopian fixed mastery/variable time approach, but other recent, significant systemic developments in the Army have kicked the door of opportunity wide open with perfect timing.

Only a few years ago the author was lucky to lead a small team within Programme Castle (the Army initiative focused on a radical overhaul of the human resources system based around career structures, talent and learning) tasked with creating a new language of skills in the Army. Initially called the Army Talent Framework, it now nests within the Army Talent Management System and has been taken on across defence as the Pan-Defence Skills Framework. This is a new and consistent language of skills that enables the strategic level of the organisation to build capability and identify capability gaps in a way previously impossible (it enables tri-service assignments, lateral entry, better links with industry, etc), whilst supporting the operational level to appropriately assign personnel to priority areas. At the individual level it supports progression of skills, the 'Skill Standard' being the currency of the system that enables knowledge, skills, experience and behaviour to be objectively articulated (including military and civilian qualifications) and linked to job roles (jobs specs of the future will articulate a number of skills with the required proficiency from level 1 awareness to level 7 strategist).

Skill Standards are arranged by profession and the constituent elements required of each Skill Standard at each of its proficiency levels are dictated by an appointed head of profession. So for the LTS to capitalise on a system which unlocks fixed mastery/variable time there is a requirement to identify the combat head of profession and hope they have an interest in integrating the LTS. It is the combat head of profession who has the ability to define not just Skill Standards, but who needs these skills, at what proficiency level (including what it takes to achieve that level – with assessment directly linked to LTS activity), how it is signed off, who signs it off and when it is signed off... (big reveal: Director Land Warfare is not only the LTS creator, but is the appointed combat head of profession).

TRAINING DEVELOPMENT AND ASSURANCE

Defence Systems Approach to Training is time consuming, under-resourced and its current application does not support agile adaptation.

As a paradigm shift in training, the LTS also requires a supporting training development methodology. The current methodology, the Defence Systems Approach to Training, is the policy foundation to defence training which supports the determination of how training requirements are identified, developed, delivered and assured. It has evolved into a thorough, process-led system which is particularly good at addressing deliberate training requirements developed over time. But... the Defence Systems Approach to Training is also hugely time consuming, under-resourced and, subsequently, does not support agile adaptation to new threats or requirements (such as those articulated in *Future Army Structure* and *How We Fight 26*). In the current fiscal climate, resourcing of Defence Systems Approach to Training activity is unlikely to change so we must look to focus on the effectiveness of the training and not feeding the demands of the monster that Defence Systems Approach to Training has become; 'Defence Systems Approach to Training compliance' is not an output in itself and our approach to it must be adapted to enable successful exploitation of the LTS.

A new approach to Defence Systems Approach to Training is required that appropriately balances risk.

The term 'Defence Systems Approach to Training compliance' is itself problematic with no specific definition, but a very unhelpful common application very often favours process over the key principle (the Defence Systems Approach to Training loop/cycle).[2] To many, compliance is demonstrated through the creation of near-impossible quantities of documentation which, whilst it might indicate levels of compliance against Defence Systems Approach to Training loop elements, regularly misses the point; assurance is very often under-resourced (or not resourced at all) and without it the loop is broken, with the consequence that it is unclear whether training is meeting its objectives and, crucially, if the objectives are still what is required by the Field Army (with inevitable training deficiencies, which must be fed back into the initial requirement, being missed). It is understandable why organisations have come to favour a more comfortable, easy to measure form of compliance, but our soldiers will not thank us for this on the battlefield; a balanced approach that focuses on operational risk over policy compliance must be adopted.

Defence Systems Approach to Training is not the enemy, but some of its related mindsets can be. In order to achieve a balanced approach, we must consider compliance not as a binary yes/no question or a document collection serial (a poor measurement of effect), but as a spectrum with effectiveness of training as the key output (developed, delivered and assured as required by the Defence Systems Approach to Training cycle). An agile approach is already articulated in policy (ACSO 3249), but as we seek to empower our soldiers through the LTS we must also empower our training specialists to pragmatically apply Defence Systems Approach to Training to optimise training (a significant mindset change for many). Such a pragmatic approach is not entirely new. In fact, less than a decade ago it was Op Entirety that brought vast quantities of urgent operational requirement military equipment, purchased under emergency Treasury funding, into core with an incredible training development burden. If for example we briefly consider protected mobility vehicles (itself just one area within one category of urgent operational requirements) – which saw circa 2,000 vehicles (Warthog, Husky, Mastiff, Ridgeback, Wolfhound, Jackal and Coyote) formally brought into service at the same time. Now this is a complex task, complex enough across the Field Army units that have to train to operate these vehicles, but a Herculean equipment support task for the REME who have to train their Service personnel to maintain and repair each platform. The punchline is that a pragmatic approach to Defence Systems Approach to Training was the only way to successfully integrate these (and then many other urgent operational

[2] *The element of DSAT is that it is a cycle which starts with identification of a training requirement through analysis, designs and delivers training against this requirement, then conducts a crucial assurance stage to ensure the requirement is still valid (ie the training is still addressing a Defence capability need). Requirement changes found at the assurance stage then feed back into the first analysis stage and the cycle continues.*

requirements across all equipment types) with compliance being defined around the ability of personnel to safely train and operate effectively.

Was every Defence Systems Approach to Training document 'required' by the system (a system that we impose on ourselves – there is no legislative element) completed before the training could carry on? Of course not, we rightly prioritised our personnel (their ability to operate safely) and operational output.[3] The success in this case was underpinned by a similar empowerment and freedom in the training development organisations that the LTS is gifting commanders. Those developing and delivering the training must continue to be afforded trust – there is a risk of imposing increasing constraint related to 'supporting' software systems (software that manages pipeline and documentation) and a systemic predilection across defence for the introduction of 'apps'. Such software systems can be useful, but there is a risk we focus energy in the wrong areas, feeding the machine and measuring the wrong metrics.

Within a new pragmatic approach, measuring training effect within assurance is vitally important and must be integrated into the system in a way that it is not bypassed when resources are pressured (currently often the case). The measurement of input (time and resource) and output (volume and quantity) is easier to achieve than the measurement of outcome and therefore can become a tempting and unhelpful distraction (this links back to measuring 'compliance' in documentation terms). It is outcome – training effect – that is key as it has an inherent link to readiness and enables the training to respond to emerging threats. Assurance that focuses the training requirement, ensuring it is relevant and up to date, is the vital ground.

In order to ensure training effect is measured routinely an annual assurance serial should be written into the LTS mandating the attendance of all those involved in the training development on Cyclone, enabling thorough analysis of changing requirements and their implementation through direct engagement with the affected soldiers and commanders. This would not only lead to a better understanding of the requirements (getting the data whilst it is fresh and individuals are engaged – including the chain of command who will also be on the Cyclone event and able to cover external validation points), but has the added benefit of cutting down the need for slow and burdensome data requests to busy units by email, which unsurprisingly tend to field low quality data within the poor response rates.

One significant area which must be scrutinised is the organisational landscape of Training Requirement Authority, Training Development Authority and Training Provider. The current separation of these elements is artificial and often presents unnecessary barriers to progress, particularly when the elements sit in separate organisations within the same chain of command (the case for the majority of courses relating to LTS). The training landscape across defence is incoherent so nothing weds us to an unhelpful status quo that makes prioritisation of training development more challenging; boundaries must be scrutinised, with co-located working groups formed around military capability to enable quick course development in priority areas.

A pragmatic approach is already being tested in the Defence School of Logistics and Administration (within Land Warfare Centre's Defence College of Support) through 'Tradewind training development sprints', one example being the RLC troop commanders' course (along with the overall Defence Logistics Officers pipeline) which involved Training Requirement Authority, Training Development Authority and Training Provider focussing efforts together in the same location, at the same time, dramatically cutting the development time and entirely removing the significant routine delays caused by development ping pong across organisations. There has also been innovative use of military judgement panels and internal validation data to feed back into the initial requirement (addressing a lack of external validation capacity/conduct) – with rapid changes that immediately impact training (with the Defence Systems Approach to Training documentation a secondary yet still important consideration). Successful use of Defence Systems Approach to Training relies on finding the agile ways to create effect and efficiency.

CONCLUSION

Training an agile, effective force to meet contemporary and evolving threats requires not just modernisation, but modernisation within resources; effectiveness and efficacy within our training system is vital for success. The LTS offers the solution with a generational shift in training mindset and methodology and we must ensure legacy approaches do not compromise the promised gains. We must embrace fast delivery of updated training that lowers operational risk at the cost of compliance where necessary (Defence Systems Approach to Training documentation can be written concurrently or later). We must welcome the opportunity to form cross organisational groups to update training together and at pace (and make permanent changes to structures where it proves beneficial). We should seek to always define compliance around what best serves the effectiveness of the training, not a filing cabinet or management information system. We must continue to seek innovative ways to develop training, proactively updating the requirement and putting our soldiers and their ability to operate first at all times. This is our part in a generational change – training has never been conducted, assessed or evaluated in such a way before and bold steps are required to ensure the most effective, efficient and modernised training delivers the most excellent, optimised fighting force through the Land Training System.

Rapid roll-out: Soldiers conduct driver training with the then new Wolfhound vehicle on a purpose built training area in Camp Bastion, Afghanistan in 2010.

[3] *This is not to say that all DSAT documentation should be ignored; DSAT documents provide a useful indication of compliance with the stages of the DSAT cycle but priority (operational/safety related) training updates must not be held back (DSAT document updates can occur concurrently to the training update or be delayed).*

SHARPENING THE BRITISH ARMY'S CYBER SABRE

AUTHOR

Corporal Martin Hill (Army Reserve) teaches analytic techniques at Chicksands and is a freelance software engineer who updates large, complex, legacy software systems for large organisations.

THE British military can lay claim to past innovations – we were the first to develop the tank and were an early adopter of aircraft – but we seem to be woefully slow at incorporating cyber[1] into our toolbox of future capabilities. We know that it is feasible. Russia's annexation of Crimea has proved a rich field of study in effective combined military action,[2] and Russia is not significantly more advanced in technology or wealth than the UK. We also know that it is necessary – not least if we are to realise the Chief of the General Staff's aspiration to become more lethal in an increasingly digital age.

So why are we so slow at cyber and what can we do about it? Should we even attempt to include cyber in our tactical military capability? Cyber could instead be a purely civilian role, best filled by a specialist arm. After all, why train up people to operate in arduous physical battlefields – and then sit them in a chair in an office? Similarly, why equip personnel with skills that may not actually be employable on the physical battlefield? Or attempt to defend equipment that is highly likely to be vapourised into metallic mist in a modern industrial war?

Yet even if you believe that our cyber operators do not belong on the physical battlefield, our cyber systems are already there. Consequently, our battlefield toolbox should include the means to defend our systems and attack those of our enemies.

Some teeth-arm commanders may already

[1] *Here 'cyber' means 'computer system network attacks and defence'.*

[2] *For example, denial and neutralising attacks (reuters.com/article/us-ukraine-crisis-cyber-idUSKBN14I1QC), as well as recce (reuters.com/article/us-cyber-ukraine-idUSKBN14B0CU), and the spread to involve allies on both sides (politico.eu/article/ukraine-cyber-war-frontline-russia-malware-attacks).*

include cyber in their planning along with air support, artillery and logistics, but this does not appear to be widespread. Cyber does not feature in the standard Intelligence Corps briefing templates, nor is it usually in enemy assessments. The British Army has not ignored the field; Cyber Protection Teams now include cyber capabilities in the organisation, but we have yet to incorporate cyber capabilities into our fighting. The existing teams have demonstrated usefulness supporting civilian operations, but they are not yet everyday military capabilities.

CROSSING THE DIVIDE

In my experience many teeth-arm commanders are keen to understand cyber but don't know how to find out more. And if they do hunt down someone in the know to talk to, that specialist generally can't share their knowledge in a manner that makes sense. One reason for this is the difficulty in finding common ground and mutual understanding when combining very different specialisms from very different domains and communities. It may be a stereotype but those who revel in kinetic action tend not to enjoy sitting for hours staring at a screen, whereas those who like to explore computer networks don't usually show the same enthusiasm for exploring the 'great outdoors'. While there are people who span both worlds, there is generally a trade-off that more expertise in one means less in the other.

Yet we already understand and practice – to varying degrees of success – 'combined arms' that coordinate very different domains. We know how to combine infantry with armour, artillery, engineering, air support and littoral capabilities to establish beach heads. We know we need all these very different skill sets and equipment – and the long chains of off-battlefield support skills and assets associated with them – to overcome effective opposition. What can we take from these practices to exploit cyber?

Commanders are users not mechanics; they need to know the capabilities of their command but not all the details of their delivery. They can lead an effective armoured assault without expertise in internal combustion engines; they can direct remote indirect fire without expertise in flight trajectories; and they can use fast movers without expertise in aircraft weapon load mixtures. Headquarters staff already include specialists who can relate their technically detailed knowledge of particular domains to the battle and the commanders' needs: the signals officers, the logisticians, the local host nation translators, the air liaison, and so on. What can we take from these divisions of expertise to exploit cyber?

We tend to talk about cyber using terms such as 'destroy' or 'disable' but cyber attackers also discover, steal, degrade, confuse and extort and these actions map reasonably well to familiar military terms such as recce, find, sabotage, feint, divert and coerce. There

are plenty of stories[3] – true, plausible or just illustrative – that can describe the capabilities of cyber in military terms even if the mechanics are different. What can we learn from these stories to exploit expertise?

Finding similarities with existing practices is all very well, but there are still radical differences between physical battle systems and their cyber components. Cyber effects, for example, disregard speed and range and load capacity – but can only reach direct targets through cables and contested radio channels. Small physical efforts can have wide ranging physical consequences[4] but only against specific vulnerabilities. Cyber can appear to be a mysterious shadow world that reaches out and touches everything in ways we don't understand, but it is merely different – not magical. We need our commanders to understand its unique characteristics in order to exploit it – and to exploit the enemy's failure to use it properly – just as our commanders know how to exploit air support and logistics. We don't need them to become cyber technicians.

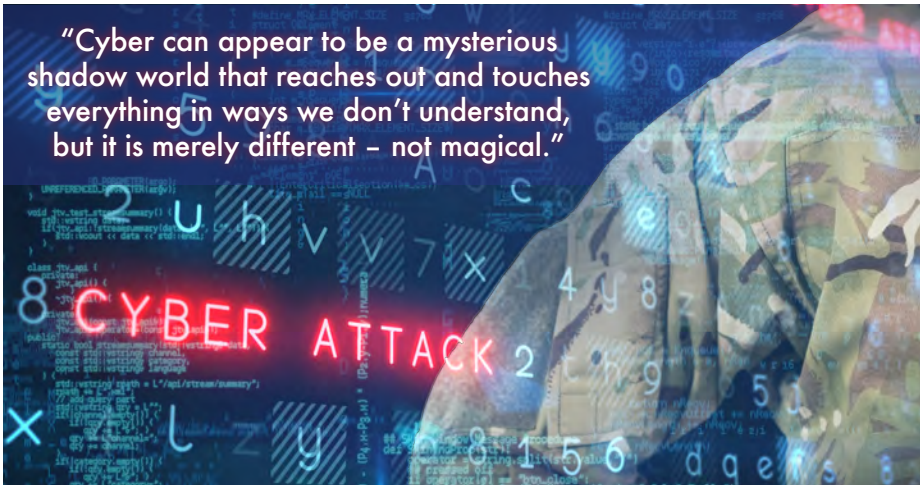
Even if we limit what we need our commanders to learn, there are still organisational problems to conquer. We have little cyber expertise in command headquarters and so cyber is not routinely considered in planning. There is no obvious 'demand pull' for cyber expertise. And there is a poor 'supply push' because cyber experts who can intelligibly contribute to battlefield planning are hard to find.

If we don't get this at least mostly right, we remain vulnerable in defence and ineffective in attack. So what can we do to get 'more right'?

GENERAL PULL

One option is to improve the 'pull' of expectation by incorporating cyber into intelligence briefing templates; that is into the standard Intelligence Preparation of the Battlefield and Threat Assessments. 'Cyber' should be as natural as 'obstacles' and 'fields of fire' when describing the operating environment. It should carry the same weight as 'weapons ranges' when describing enemy capability. It should be alongside 'indirect fire', 'feints' or 'improvised explosive devices' when describing doctrine.

Our intelligence analysts need not be cyber experts any more than they need to be experts in 'bridges', 'riverbanks', 'airfields' or 'explosives'. Such aspects are placeholders in the assessments, a reminder to analysts to send requests for information to the right agencies to get what they need to brief from, and 'cyber' should feature alongside them. Having such experts 'in-house' would be useful but



'intelligence support to cyber' (or vice versa) could be just as good an approach.

Radical new training is therefore not required; civilians have been assessing cyber threats in non-technical business terms for some years now and there is plenty of existing training material. Some of it has already been translated into military form by Reservist (and Regular) individuals.[5] As our newly-trained intelligence analysts diffuse into the wider military, they will take with them the expectation that cyber should be in the evaluations – that it is incorporated in the understanding of the ground and the enemy. The detail will be sparse to begin with, but setting that expectation creates a pull from the HQ Staff ("we need to know more about this").

SPECIALISED PUSH

Training cyber skills takes considerable time: the Cyber Security Technologist NVQ Level 4 apprenticeship takes about 200 days to produce a starter generalist from an interested, motivated and academically bright student. This is partly because the cyber domain is complex and highly dynamic. Yet so is warfare, and we train young people to be effective on the battlefield through a mix of generalisation (basic infantry skills) and specialisation. Similarly cyber capability could be effectively added to the British Army arsenal through two specialisms: Forward Observation Officer (FOO) advisors and Business, Academic and Reserve (BAR) advisors.[6]

FOO advisors would be the cyber equivalent of the old artillery forward observation officers – individuals on the ground, down to company level, who smell the air, taste the smoke and understand the commander's intent, and can relate the local situation to the remote cyber capability available. They would need to be those rare animals that can understand both worlds and explain one to the other.

BAR advisors would be our training teams – incorporating cyber into training exercises, mapping terminology between domains, creating suitable metaphors for explaining capability and so on. They will not need to get involved in the dirty, uncomfortable, exhausting and frightening world of the physical battlefield and so the net can be cast wider.

By creating, training and operating specialist FOO and BAR Cyber Advisory Teams, the British Army can specialise the training and expertise required for both, accelerating their effective adoption.

NO WAITING

Despite the immense efforts of small and scattered units, our cyber capabilities remain behind those of potential adversaries and indeed some of our more junior allies. If we are to survive mixed cyber/physical contact with even not-very-near-peer opponents, we need the 'get on with it' attitude that brought the tank and the aircraft into our battlefield toolboxes. This need not be onerous. We can start by including 'cyber' as a standard, common, necessary part of our intelligence briefs, and by fielding nascent Cyber Advisory Teams close to our commanders as a standard, common, necessary part of our field HQ staff. By incorporating cyber capability into our fighting capabilities in this lightweight and familiar way, we will quickly be far better prepared to defend our people and our systems from enemy cyber capabilities – and attack them with our own.

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[3] *For example, Silent Ruin series, Spoofing GPS, Exploiting Boundaries, Fancy Bear (crowdstrike.com/blog/danger-close-fancy-bear-tracking-ukrainian-field-artillery-unit).*

[4] *For example Ransomware attack on the NHS, 2017, acronis.com/en-gb/blog/posts/nhs-cyber-attack*

[5] *For example, the "Tactical Cyber" Defence Connect site.*

[6] *The terms FOO and BAR are frequently used in IT tutorials when learning a new topic. It has roots in the military term FUBAR, so maybe the cross over between IT and military is not as remote as it may seem.*

READY TO EXPAND: HOW THE SMALLEST BRITISH ARMY IN 200 YEARS CAN CREDIBLY DETER

AUTHOR

Major Chris Adams currently commands 30 Armoured Engineer Squadron, 26 Engineer Regiment. He has recently graduated from the US Army School of Advanced Military Studies and has operational experience from Afghanistan and Iraq.

IMAGINE that back at the beginning of this summer a rapid change of events on the continent once again saw the United Kingdom at war in Europe. A small, professional, highly-trained British Expeditionary Force built around 3 (UK) Division deployed expecting the conflict to be over by Christmas. It won't be and – as ammunition, equipment and personnel run out – a strategic pause to train and re-arm will become a necessity. Fast forward 12 months from the start of hostilities and the British Army will find itself frantically trying to rebuild from the shattered remnants of what existed before. The situation will call for what Churchill described in the June of 1940 as a need for the "new world's power and might" to step "forth to the rescue and liberation of the old".[1] More specifically, America's land industrial base will be required to begin providing the equipment for new formations to fight with. Cap badges that had atrophied to single units will suddenly find themselves growing again, and the majors and senior captains who survived the war's first year will find themselves as commanding officers.

True warfighting readiness, and thereby credible deterrence, is not about short-term metrics such

[1] *Winston Churchill, We shall fight on the beaches, June 4, 1940, parliament.uk/about/living-heritage/transformingsociety/private-lives/yourcountry/collections/churchillexhibition/churchill-the-orator/fight-on-the-beaches*

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as individual training requirements. Rather, it is about the strategic endurance to remain in the fight, and the ability to expand, transform and win. This article uses three short case studies of prolonged large-scale warfighting between peers from the 20th century to argue that the former Chief of the General Staff, General Sir Patrick Sanders, was right to say that regular armies start wars and citizen armies win them.[2] Having explained the necessity to expand, it explores the implications for the British Army today, reaching two important conclusions. First, retaining breadth of capability at the expense of depth is the correct compromise for an army of 73,000 people. Second, that individual and collective training in the British Army does far too little to prepare today's commanders for the higher roles they would be propelled into in an expanded citizen army. It aims to convince the leaders across today's British Army that they have an obligation to train their subordinates one to two ranks up, whenever possible.

CONFLICT AGAINST A PEER WON'T BE 'OVER BY CHRISTMAS'

Armies have long been seduced by the promise of a quick successful war. Hannibal's decisive success at Cannae and Frederick the Great's pulses of violence to expand Prussia offer alluring examples to try and replicate.[3] But with industrialisation and mass armies in the late 19th century came a corresponding expansion of warfare in space and time.[4] Soviet theorist Georgii Isserson brilliantly captures how this change rendered the single decisive battle of the past obsolete. Instead, he argues that the outcome of an industrialised war at scale is decided by multiple successive events increasingly spread out in space and time.[5] A warfighting British Army deployed to the Continent to fight is thus unlikely to be 'home by Christmas'.

But what about Desert Storm and the Falklands? Both achieved decision in weeks rather than years. The answer lies in the type of conflict the British Army must be prepared to face. If large scale warfighting against a peer means mobilising the majority of one's force to apply violence against an adversary with similar ability across the three components of fighting power, then 1982 and 1991 are not relevant examples. The coalition in 1991 was large scale, requiring 80 per cent of the British Army's transport capacity.[6] But the coalition was not fighting against a peer technologically, conceptually and – in some cases – morally.[7]

The 30,000 personnel in Admiral Sir John Fieldhouse's Task Force 317 were less than 10 per cent of the 328,000 regular personnel serving across the three services of Britain's armed forces in 1982.[8] As such, neither is indicative of the type of warfighting the British Army must prepare itself for today. There are, however, plenty of examples of large scale peer-on-peer conflict in the 20th century. Rewinding through the decades, the Iran-Iraq war, possibly Vietnam (depending on one's definition of peer), Korea and two World Wars stand out. For brevity, this article will focus on the latter three.

1914 saw a small professional British Expeditionary Force deploy hoping a short decisive war would see them home by Christmas. Instead stalemate on the Western Front and a lack of personnel, materiel and munitions forced a strategic pause while the new armies were trained, organised and equipped. 1,186,000 men joined the service in just five months from August 1914. By the end of 1915, over three million had volunteered across the British Empire. With no universal service, very few of these had any military training.[9] From May 1915 these new armies began deploying to the Continent, ready for the massive planned offensives of 1916. Crucially, the British Army had to pause, train

"Stalemate on the Western Front and a lack of personnel, materiel and munitions forced a strategic pause while the new armies were trained, organised and equipped. By the end of 1915, over three million had volunteered across the British Empire."

and expand beyond the existing size of its regular component by a staggering 1,000 per cent in two years. Notably, it had to do this quickly and effectively in the face of the Central Powers doing exactly the same.

1939 saw a small professional British Expeditionary Force deploy to the continent once more. After a mauling and subsequent withdrawal through Dunkirk, those that survived were important to the subsequent expansion of the force. 1938's 199,000 strong regular army expanded ten-fold to reach 2,111,000 regular personnel by 1941.[10] The youngest of those serving in the First World War would have been in their mid-30s at best during this expansion, meaning very few of those being trained at the onset of war had any prior military experience.

When the Korean War began in 1950, the United States Army had an active component (regular) strength of 593,000. Macarthur's success in amphibious landings at Incheon with X Corps, and subsequent exploitation north of the Yalu River, led to large scale warfighting against the Chinese People's Liberation Army.[11] While 593,000 seems like an enormous force by today's standards, it still needed to expand quickly and efficiently for the US Army to endure and set the conditions to win. Within five months it had almost doubled in size, and stood at 1.5 million strong by 1952.[12]

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[2] *Dan Sabbagh and Peter Walker, "Army Chief Says People of UK Are 'Prewar Generation' Who Must Be Ready to Fight Russia," The Guardian, January 24, 2024, sec. UK news, theguardian.com/uk-news/2024/jan/24/army-chief-says-people-of-uk-are-prewar-generation-who-must-be-ready-to-fight-russia*

[3] *Peter Paret and Gordon Alexander Craig, eds., Makers of Modern Strategy: From Machiavelli to the Nuclear Age, Princeton Paperbacks (Princeton, NJ: Princeton Univ. Press, 1986), 96–105.*

[4] *James J. Schneider, "The Theory of the Empty Battlefield," The RUSI Journal 132, no. 3 (September 1, 1987): 37–44, doi.org/10.1080/03071848708522822*

[5] *G. S. Isserson and Bruce Menning, The Evolution of Operational Art, Revised and expanded second edition (Fort Leavenworth, Kansas: Combat Studies Institute Press, US Army Combined Arms Center, 2013), 15–23.*

[6] *Major Dickie Gittins, "Sustaining Operation Desert SABRE," in British Army Review Special Report - The Gulf War, n.d., 71.*

[7] *"Robert Scales Gulf War Papers, 22nd Support Command, Box 3, ARCENT/3rd Army Logistics Brief" (PowerPoint, Iraq, February 11, 1991), 207.*

[8] *Ministry of Defence, "Annual Time Series for the Size of the Armed Forces since 1700 - Freedom of Information Request FOI2017/04440," April 28, 2017, 7, assets.publishing.service.gov.uk/media/5a81d66740f0b623026996e1/2017-04440.pdf*

[9] *Michael S. Neiberg, Fighting the Great War: A Global History, 1. Harvard Univ. Press paperback ed (Cambridge, Mass.: Harvard Univ. Press, 2006), 73.*

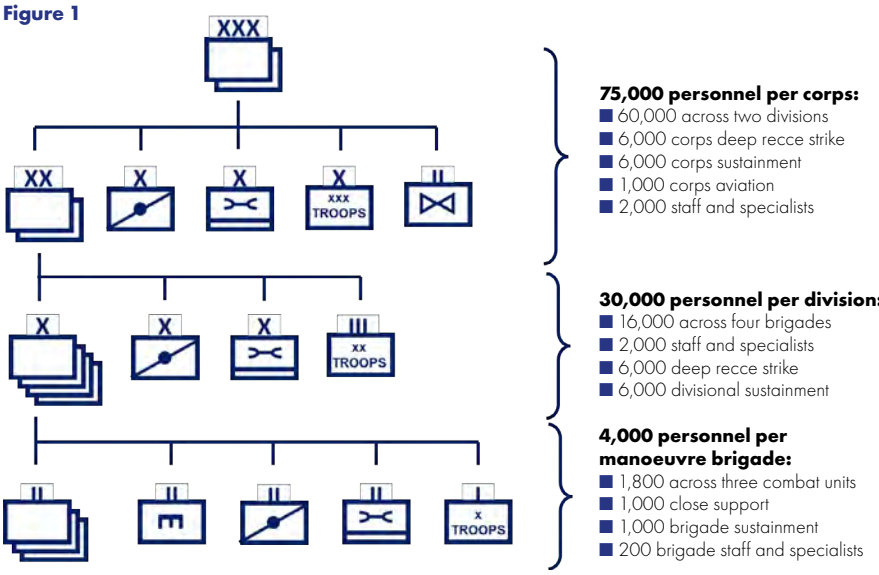
[10] *Ministry of Defence, "Annual Time Series for the Size of the Armed Forces since 1700 - Freedom of Information Request FOI2017/04440," 6.*

[11] *The Chinese Intervention (CMH Pub 19-8), The Korean War (US Army Center for Military History, n.d.), 3–7.*

The British Army grew by a relatively small 90,000 regular personnel over the same period, a 25 per cent increase.[13] The American figures for Korea are important because those in the British Army frequently look at today's authorised US Army active component end strength of 473,000 as a larger ally that can provide seemingly infinite amounts of mass.[14] The Korean War shows that even an army of this size could be forced to rapidly expand if it enters a conflict with a peer, let alone a regular army of 73,000.

Warfighting readiness therefore has two sequential requirements that are equally important. First, surviving the opening six months. Second, being able to expand effectively in the months and possibly years thereafter. Individual and collective training in the British Army focuses exclusively on winning in the first six months, with exercises like Warfighter testing the ability of the current force to fight.[15] Larger exercises such as 2024's Steadfast Defender provide an opportunity to test the operational challenges inherent in deploying combat power onto the Continent.[16] This article hopes to expand your thinking on the second requirement; growing and transforming effectively. But how much growth and transformation is realistic? Answering this is necessary to truly analyse the challenges and implications for today's force.

Figure 1



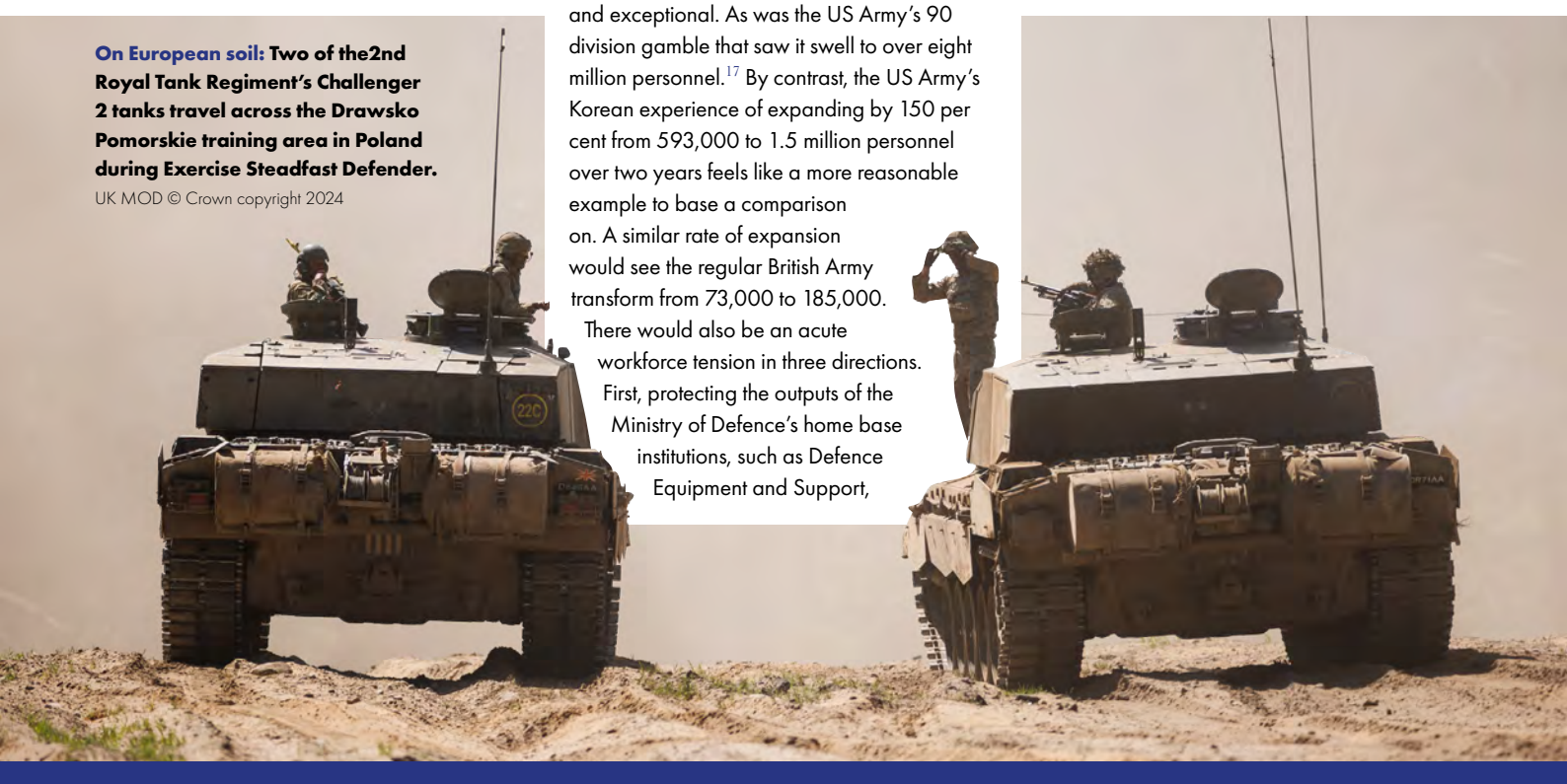
THE WARFIGHTING BRITISH ARMY ONE YEAR IN

The three case studies provide empirical evidence to gauge how much the British Army would have to grow and transform. 1,186,000 personnel joining the British Army in five months during 1914 was unprecedented and exceptional. As was the US Army's 90 division gamble that saw it swell to over eight million personnel.[17] By contrast, the US Army's Korean experience of expanding by 150 per cent from 593,000 to 1.5 million personnel over two years feels like a more reasonable example to base a comparison on. A similar rate of expansion would see the regular British Army transform from 73,000 to 185,000.

There would also be an acute workforce tension in three directions. First, protecting the outputs of the Ministry of Defence's home base institutions, such as Defence Equipment and Support, Army Headquarters and the Land Warfare Centre among others. Second, generating a suitable cadre of serving personnel to train a citizen army. Third, maximising the number of deployable formations for operational level commanders to employ. An expanded force of 185,000 would thus have to balance managing defence, training citizens and fighting.

The British Army was last this size in 1968, which might have provided a useful insight into how these three workforce demands could be balanced. In researching this article, however, the British Army defined by the 1957 *Defence White Paper* and discussed in Parliament was an inconsistent "hotch-potch" of structures and equipment that did not form a useful departure point for further analysis.[18]

Instead, designing a modern version of 1915's new armies from the bottom upwards is a more useful inductive approach. *The*



On European soil: Two of the2nd Royal Tank Regiment's Challenger 2 tanks travel across the Drawsko Pomorskie training area in Poland during Exercise Steadfast Defender.
UK MOD © Crown copyright 2024

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[12] *Brian McAllister Linn, Elvis's Army: Cold War GIs and the Atomic Battlefield (Cambridge, Massachusetts: Harvard University Press, 2016), 49.*

[13] *Ministry of Defence, "Annual Time Series for the Size of the Armed Forces since 1700 - Freedom of Information Request FOI2017/04440," 6.*

[14] *Leo Shane III, "Amid Recruiting Woes, Active Duty End Strength to Drop Again in 2024," Military Times, December 14, 2023, militarytimes.com/news/pentagon-congress/2023/12/14/amid-recruiting-woes-active-duty-end-strength-to-drop-again-in-2024*

[15] *"Warfighter 21-4 to Support Multinational Interoperability," army.mil, accessed February 22, 2022, army.mil/article/244807/warfighter_21_4_to_support_multinational_interoperability*

[16] *NATO, "Steadfast Defender 2024," NATO, accessed May 16, 2024, nato.int/cps/en/natohq/222847.htm*

[17] *Maurice Matloff, "The 90-Division Gamble," in Command Decisions (Washington DC: Center of Military History, 2016), 367, history.army.mil/books/70-7_0.htm*

[18] *House of Commons debate Vol 568 cc1758-878, April 16, 1957, api.parliament.uk/historic-hansard/commons/1957/apr/16/defence*

Staff Officers' Handbook provides detailed structures and numbers for each type of unit in today's British Army. However, these are of limited use because some capabilities will be heavily degraded during the first few months of a war, which are difficult to regenerate quickly because of training requirements and specialist equipment procurement. Examples include attack aviation, armoured engineering assets and cohesive brigade combat teams. As such, an expanded army would likely have fewer specialist capabilities inevitably held higher. Figure 1 (left) shows a rough outline of what an expanded force could look like. While not likely to pass muster if one worked in Army HQ strategic organisation or workforce plans, it provides enough inductive detail to estimate what size formations a British Army of 185,000 might be able to field. This article therefore imagines two 75,000 person British warfighting corps, with 35,000 personnel left over to manage defence, and continue training and expanding a citizen army.

The combat units in Figure 1 are undefined because the equipment fielded in them is largely dependent on the American land industrial base and the character of the war's first six months. European manufacturers that can produce armoured vehicles[19] would be targeted, as would smaller suppliers such as Cook Defence's facilities in Chesterfield and Sheffield that can cast major metallurgical components such as turrets.[20] The last remaining tank factory in the United States is in Lima, Ohio. In the mid 1980s during full rate production, it manufactured 'just' 30 Abrams main battle tanks per month.[21] Growing a substantial armoured or mechanised capability would therefore take longer than the historical speed of expansion and depend on American industry protected by an ocean on either side. This implies the expanded force would likely be lighter and technologically simpler, and therefore have to think differently about how it fights. These working assumptions are useful to understand the number of leaders required to effectively fight at scale and win.

"Growing a substantial armoured or mechanised capability would therefore take longer than the historical speed of expansion and depend on American industry protected by an ocean on either side. This implies the expanded force would likely be lighter and technologically simpler, and therefore have to think differently about how it fights."

There are 176 units task organised in the Figure 1, with 36 higher formation headquarters. While concurrently managing defence and training, there are enough members of the British Army's general staff to provide the commanding and deputy commanding generals required, even if one assumes several do not survive the initial fight and inevitable targeting of command posts.[22]

Leadership below unit level is more of an issue. 176 units would likely need over 700 sub-units before one even considers the thousands of specialists at echelon outlined, which equally require command, leadership and management. Add the rest of the majors one would expect in a typical 600-person organisation to those functioning as staff officers in formation headquarters, and one quickly realises that there are not enough to concurrently manage defence. Part of the solution is to rapidly promote serving captains to meet demand. However, this exacerbates the supply demand difference further down the rank structure. Similar analysis suggests a demand signal of over 5,000 captains and almost 3,000 subalterns within the two corps alone. The same logic from top to bottom applies for non-commissioned officers too.

This paucity of junior leadership is also apparent in a recent study exploring stage four (beyond current structure) mobilisation in the Australian Army.[23] When one considers the survival rates of the initial British warfighting division in the opening vignette, those who return are likely to promote quickly. A young subaltern that survives the first six months could very feasibly find themselves as the most suitable person to command a sub-unit a year later, without any opportunity for formal education. As a real world example, a Ukrainian major that left the US Army Command and General Staff College in 2022 to fight found himself promoted and commanding a brigade as a colonel less than a year later.[24]

IMPLICATIONS FOR TODAY

There are two important themes that flow from the argument so far. The first – and most important – is to train junior leaders to operate one to two echelons higher than they currently serve, in an organisation that looks wildly different to anything they know. A skeletal German Wehrmacht in the 1920s and 1930s used wargaming to develop leaders and doctrine.[25] Their experience shows units can develop their conceptual components without materiel. Success looks like meaningful leader development at sub-unit, unit and brigade

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[19] *KNDS Deutschland GmbH & Co. KG, "Our History," accessed May 19, 2024, knds.de/en/about-us/history*

[20] *Cook Defence Systems, "Casting Technology for Armoured Vehicles," n.d., william-cook.co.uk/_media/documents/Casting-technology-for-armoured-vehicles.pdf*

[21] *Doug Wissing, "The Unstoppable Abrams," The American Legion Magazine, August 2013, 22.*

[22] *"List of Serving Senior Officers of the British Army," in Wikipedia, May 14, 2024, en.wikipedia.org/w/index.php?title=List_of_serving_senior_officers_of_the_British_Army&oldid=1223849824*

[23] *McLeod Wood, "Going All in: Stage Four Mobilization in the Australian Army and the Enduring Issues Related to Sustaining Professional Military Leadership. - Master of Military Art and Science Theses - Ike Skelton Combined Arms Research Library (CARL) Digital Library" (Fort Leavenworth, Kansas, US Army Command and General Staff College, 10 Jun 22), 78–91, cgsc.contentdm.oclc.org/digital/collection/p4013coll2/id/4051/rec/1*

[24] *Christopher M. Adams, "Three Dimensional Thought in Ukraine: Operational Lessons for the Mounted Force," The US Army Cavalry and Armor Journal, no. Fall 2023 (October 2023): 39.*

[25] *Development, Concepts and Doctrine Centre, Wargaming Handbook (Shrivenham, UK, 2017), 26–27, assets.publishing.service.gov.uk/media/5a82e90d40f0b6230269d575/doctrine_uk_wargaming_handbook.pdf*

level to enable everyone to instil agility of thought, and the competence to operate one up. When B Squadron of the King's Royal Hussars expands and redeploys as XIV Hussars battlegroup, its 2nd troop leader should be able to function as a squadron leader. Today's command and staff training facilities provide opportunity to develop this still further; for squadron leaders to practise as commanding officers, brigade commanders to practise divisional command etc. Doing so would provide enormous benefit to one's current command appointment too, with a renewed appreciation for the challenges and perspective of the echelon above. This does not have to mean more collective training events. Rather, it means pausing once a headquarters validates, then resuming training an echelon higher.

The second is the need to retain the expertise to grow two British corps into complete orchestras of war, to borrow a phrase from Bill Slim.[26] Removing a capability sees it fade from the collective memory of the force over the following 10-20 years. For example, since the Shielder mine-laying system [pictured] was taken out of service more than a decade ago, there are very few Royal Engineers who can claim to be confident in establishing minefields. Growing a given capability therefore requires a small cadre of erudite personnel who can advise on procurement and spearhead training. While many may lament the current British Army trying to do a little bit of everything, this is the correct approach. Today's niche centres of excellence – such as air defence on Thorney Island and electronic warfare in Pembrokeshire – are essential for the expanding force.

"Credible deterrence comes from a perceived ability to fight and win. The British Army is the smallest it has been in 200 years, which inevitably impacts this perception. Nevertheless, 73,000 people working together can credibly deter if they demonstrate an ability to expand rapidly and effectively."

CONCLUSION

Credible deterrence comes from a perceived ability to fight and win. The British Army is the smallest it has been in 200 years, which inevitably impacts this perception.[27] Nevertheless, 73,000 people working together can credibly deter if they demonstrate an ability to expand rapidly and effectively. As such, today's British Army should be focusing its training and organisation on two things: a professional army that can endure the first six months, and the ability to rapidly transform into a citizen army that can win.

This transformation when at war would almost certainly see the British Army expand beyond its current size to generate sufficient combat power to endure and win. Rather than using the 1,000 per cent expansion of the two world wars, this article used the 150 per cent expansion of the US Army for the Korean War as a conservative estimate of how much the British Army might increase in size.

A British Army of 185,000 personnel, one year into war, will see those junior officers that are still alive promoted rapidly and commanding an echelon higher than they have received formal training for. In brief, a young platoon commander at the outset could be an acting major commanding a company in short order. One only has to see the progression of Dick Winters through *Band of Brothers* to understand how steep this learning curve might be. Individual and collective training should help these junior leaders develop the mental agility to thrive in this scenario. This is equally true of junior non-commissioned officers, and so the onus to prepare leaders to operate one-up is incumbent on us all.

The silver lining of the British Army being its smallest for 200 years is its remarkable ability to retain breadth of capability at the expense of depth. Small niche centres of excellence provide the expertise to procure materiel and train a citizen army to be a complete orchestra of war.

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[26] *N. R. M. Borton, "The 14th Army in Burma: A Case Study in Delivering Fighting Power," Defence Studies 2, no. 3 (September 2002): 44, doi.org/10.1080/14702430208405039*

[27] *"The Times View on the British Army: Thin Red Line," accessed May 19, 2024, thetimes.co.uk/article/the-times-view-on-the-british-army-thin-red-line-fnnjpjwff*

■ **For those whose interest has been stimulated by this article, and who would like to explore the theme in more detail, *How Armies Grow* is a CHACR book that was written at the behest of the current Chief of the General Staff when in a previous post, and was read by the previous Chief of the General Staff as he assumed the role. It offers a more profound historical exploration of the demands (and shortcuts) involved in expanding armies under pressure in times of conflict.**

HOW TO INCREASE FIGHTING POWER: HISTORICAL EXAMPLES

AUTHOR

Major Mark Davies recently left a role in Ground Manoeuvre, Military Capability Plans, part of the Futures Directorate in Army HQ. He is now in Sub-Unit Command in 3 (UK) Division.

MILITARY effectiveness is defined as "the process by which armed forces convert resources into fighting power".[1] The most effective armed forces are therefore those that derive the most fighting power from all the national resources – usually determined at the political level – available to them, be they large or small. This article seeks examples of good practice from our forebears in Britain's 8th and 14th Armies (while recognising current constraints) but does not offer an explanation of fighting power, which can be found in NATO, joint and land doctrine.[2] Nor is it exhaustive – leadership and the role of key commanders are omitted to avoid becoming panegyric.

Measuring fighting power is difficult, and even more so when measuring it relative to other armies. The physical component is objectively the easiest to measure, however, 'not everything that counts can be counted, and not everything that can be counted counts'. The drive for modernisation will deliver many elements of the physical component but there are other, more subjective, areas where we have more agency and resource could go further.

Given the British Army will rely on the joint force and our NATO allies ('our plan is the NATO plan') for much of our fighting power, having the plugs and sockets to integrate must be a given. In World War II, both the 8th and 14th Armies expertly and routinely integrated with the air domain – doing so was not the exception or the preserve of relatively few specialists. Indeed, many at the time argued they were so integrated as to be indistinguishable (Slim particularly). While some of this integration was technical and procedural, it was hard won in purpose and practice.

CONCEPTS AND DOCTRINE

As has been observed, 'there can be a gap of between 20 years between what is thought and what is taught'. With the Land Operating Concept published, it needs to be inculcated from what is being thought to what is being taught, and finally what is fought. In the opening years of the War, for both the 8th and 14th Armies there was a dearth of conceptual thinking and effective doctrine due to Field Service Regulations being un-prescriptive and a set of principles to be applied.[3] Unlike opposing armies, doctrine wasn't wedded to command philosophy even though "it is only through a synthesis of these two factors that fighting power can be generated".[4]

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[1] *Millet, AR 'The Effectiveness of Military Organizations' International Security, Summer 1986 (Vol 11. No.1).*

[2] *Allied Joint Publication-01 Allied Joint Doctrine, Allied Joint Publication-3.2 Allied Joint Doctrine for Land Operations, Joint Doctrine Publication 0-01 UK Defence Doctrine and Army Doctrine Publication Land Operations.*

[3] *L. H. R. Pope-Hennessy, 'The British army and the modern conception of war', Edinburgh Review 213: 436, April 1911, p. 334.*

Fortunately, the current situation isn't as stark. Nevertheless, the resources available for the training engine to drive a concept into doctrine and then into practice remains a real challenge. This was also the case for the British Army of 1942: "The real cause of such a state of affairs lay in the failure... to enunciate a clearly thought-out doctrine and then to institute a thorough training programme to ensure its acceptance throughout the Army...."[5]

The Armies themselves were becoming increasingly standardised as divisions. Between 1942 and 1944 there were five different divisional organisations in the 14th Army: an animal, motor transport and light division and two amphibious divisions with various mixes of brigade sizes and numbers of battalions therein. These were to be standardised, not due to the environment (jungle at the time) but to better suit the needs of combined arms integration (General Sir George Giffard and Major General Lethbridge led the 220 Military Mission and convened a meeting at 14th Army HQ with each division reorganising when it came out of the line before a period of intense training and re-entering the line). Organisation, application of doctrine, lessons and supply were greatly simplified by this process.[6]

TRAINING

Nowhere else is the temperature of fighting power so distinctly felt as in training, and nowhere else is it so accelerated. For both the 8th and 14th Armies a complex but highly effective system of schools and training divisions proliferated as both individual and collective training were scaled up to the new heights required to take to the field against the Axis powers.

The newly reformed 51st Highland Division rotated through the lines of 9th Australian Division to become accustomed to desert fighting. This culminated in no less than five live-fire divisional rehearsals prior to the third battle of El Alamein, which included live artillery barrages to ensure all were used to fighting in the dust and at night. Both armies fielded, trained and tested divisions (and commanders at all levels) in the field prior to any set-piece engagements, often feeding them piecemeal into the lines first to win morale boosting (and assured) small victories. This process was most sophisticated in the Far East theatre where the jungle and the perceived superiority of the enemy had to be overcome – this was done by learning from the Australian experience in New Guinea, jungle schools for all (everyone was equally a combatant) and the publication and distribution of the notorious *Jungle Book*.

"Both armies fielded, trained and tested divisions (and commanders at all levels) in the field prior to any set-piece engagements, often feeding them piecemeal into the lines first to win morale boosting (and assured) small victories. This process was most sophisticated in the Far East theatre where the jungle and the perceived superiority of the enemy had to be overcome."

[4]*Sloan, Geoffrey. "Military Doctrine, Command Philosophy and the Generation of Fighting Power: Genesis and Theory." International affairs (London) 88, no. 2 (2012): 243–263).*

[5]*Alan R. Millet and Murray Williamson (eds.) Military Effectiveness Vol.3: The Second World War (London: Allen & Unwin 1988) p.125.*

[6]*Callahan, Raymond, and Daniel Marston. 2020. The 1945 Burma Campaign and the Transformation of the British Indian Army. Kansas: University Press of Kansas. P.17.*

[7]*Gazala Court of Enquiry, Vol.1,' p.3, WO 106/2234.*

[8]*Ahrenfeldt, Robert. Psychiatry in the British Army in the Second World War. (London: Routledge 1958).*

[9]*Ibid.*

[10]*Broad, Roger. The Radical General: Sir Ronald Adam and Britain's New Model Army 1941-1946 (The History Press 2013).*

An axiom that became sacrosanct was "forces that train together should operate together"[7] – this was sadly lacking in the 8th Army with one unfortunate South African Brigade previously belonging to nine different higher formations. Orders of battle were stabilised, this was key to effectiveness, particularly at divisional level.

The biggest impact of rigorous, realistic, specific-to-role training was on morale. From early in the war psychiatrists in the Army had argued that the root problem of poor morale was deficient training.[8] Hew Strachan has also commented that the value of training "is in large part psychological: it is an enabling process, a form of empowerment, which creates self-confidence".[9] As far back as 1922 a committee considering shell shock noted that good morale is the most important product in military training. The morale of the Army between 1940 and 1942 was deemed so bad by the Adjutant General (General Adam)[10] that he commissioned a Morale Committee (responding to the fact that morale wasn't measured or improvements made by any one organisation) which saw training as absolutely intrinsic to higher morale and a higher performing Army. The three most important improvements that were slowly inculcated were realism, battle drills and battle inoculation.

OPTIMISATION

Both the 8th Army and 14th Army eventually became expert in the environment in which they were fighting. This was a long, painful and deliberate process, with all new arrivals being rigorously and realistically trained and thoroughly inoculated with live fire before getting anywhere near engagements with the enemy. This was accelerated by being deployed in the environment they were fighting – with the key drivers being the avoidance of non-battle injuries, combating the psychological advantage held by the enemy and the development of effective small unit tactics. It also drove choices on, and the modification of, equipment.

Currently the largely domestic British Army is becoming optimised to UK training areas and not the areas in Northern and Eastern Europe where it is could potentially be required to fight (less the minority of the regular drumbeat of battalions and regiments from 3 (UK) Division who rotate through a small Forward Land Force). Barring those across defence that routinely train to become specialists in an environment, the vast majority of the Field Army remain dilettantes in surviving and fighting on their likely future battlefield – particularly when it comes to winter warfare.

SINGULAR FOCUS AND CLARITY

Both Armies had the advantage of fighting an expansionist, militaristic and bitter enemy – but despite this, motivation to fight was complex, even for the largest volunteer army in history. To create the spiritual element of fighting power both armies clearly communicated a cause, for the 14th Army the fight was to smash the Japanese Army as an entirely evil thing, this coalesced the patchwork that made up the 14th Army.[11]

For Slim there were four contributory elements: there must be a great and noble object; its achievement must be vital; the method of achievement must be active, aggressive; and the man must feel that what he is and what he does matters directly towards the attainment of the object.[12] In this context 'fighting and winning wars on land' is anodyne in comparison, although the language is admirably neutral, it's analogous to trying to motivate a national rugby team merely to 'play and win games'. In this respect, therefore, we need to deliver an unapologetic and clear message about the proximity and nature of the threat against which we will be expected to fight and win.

The 8th Army perfected direct, unequivocal and universal communications ("We will stand and fight here. If we can't stay here alive, then let us stay here dead"). So much so that Churchill took one of the many Army wide communiques back to Cabinet as inspiration. The censorship report (reflecting the mail sent home from the 8th Army) confirmed that: "A breath of fresh, invigorating air has swept through British troops in Egypt, and the mail has altered in tone almost overnight. Renewed optimism and confidence were everywhere apparent, and the old aggressive spirit... is in the process of being recovered."[13]

The conceptual component was equally reinvigorated due to the singular focus. Stability and clarity in the command and control structures – and hence their orders – meant that divisions and brigades knew precisely their role and where they sat; something which had proved elusive in the Far East until the roles of South East Asia Command, 11th Army Group, 14th Army and its four corps and divisions underneath were rationalised, and further change resisted.[14]

The Chief of the General Staff has challenged the Army to double its fighting power in three years, and triple its fighting power by the end of the decade. To do so, the Army would be unwise to expect the required results through the faster acquisition of better equipment alone. Even the most optimistic force developer cannot believe that such a lethality target is achievable solely through even the most comprehensively new approach

to equipping the Army. (And, anyway, much of that acquisition process sits outside the Army's control.) But, while much of the physical component is being developed and stockpiled, there is plenty more that we can do to increase our fighting power. The Army does have real agency on the strength of its moral and conceptual components. A new emphasis on training and doctrine – on re-honing our fighting (and surviving to fight) skills, at every level – is where we can find rapid improvements. This, focussed on the patent threat, is the surest path to achieving General Walker's goals. The next war might not afford us the time to make the adjustments that our fore-bearers needed to make in 1940, 41 and 42. The 8th and 14th Armies benefited greatly from: the development and application of doctrine; realistic training, at scale; a singular focus and clarity; and optimisation for the environment in which they fought. We should follow suit.

[11] *Ho, Toh Boon, and Toh Boon Kwan. "The British-Led 14th Army in Burma, 1942-1945: The Remarkable Recovery and Successful Transformation of a Military Organization at War." International journal of military history and historiography 37, no. 1 (2017): 35–57.*

[12] *Field Marshal Viscount William Slim, Defeat into Victory: Battling Japan in Burma and India, 1942–1945 (New York, 2000).*

[13] *Fennell, Jonathan. Fighting the People's War. (Cambridge: CUP. 2019).*

[14] *Rose, Patrick. "British Army Command Culture 1939-1945: A Comparative Study of British Eighth and Fourteenth Armies." Sep 2008.*

Optimising for the future fight? British soldiers have been getting a feel for winter in Northern Europe by exercising alongside Estonian forces.

UKRAINE'S FAILED COUNTER: LOOKING BACK TO KURSK TO SEEK FUTURE SOLUTIONS

AUTHOR

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*"Yet what experience and history teach us is this, that nations and governments have never learned anything from history, nor acted in accordance with the lessons to be derived from it." — **Georg Wilhelm Friedrich Hegel***[1]

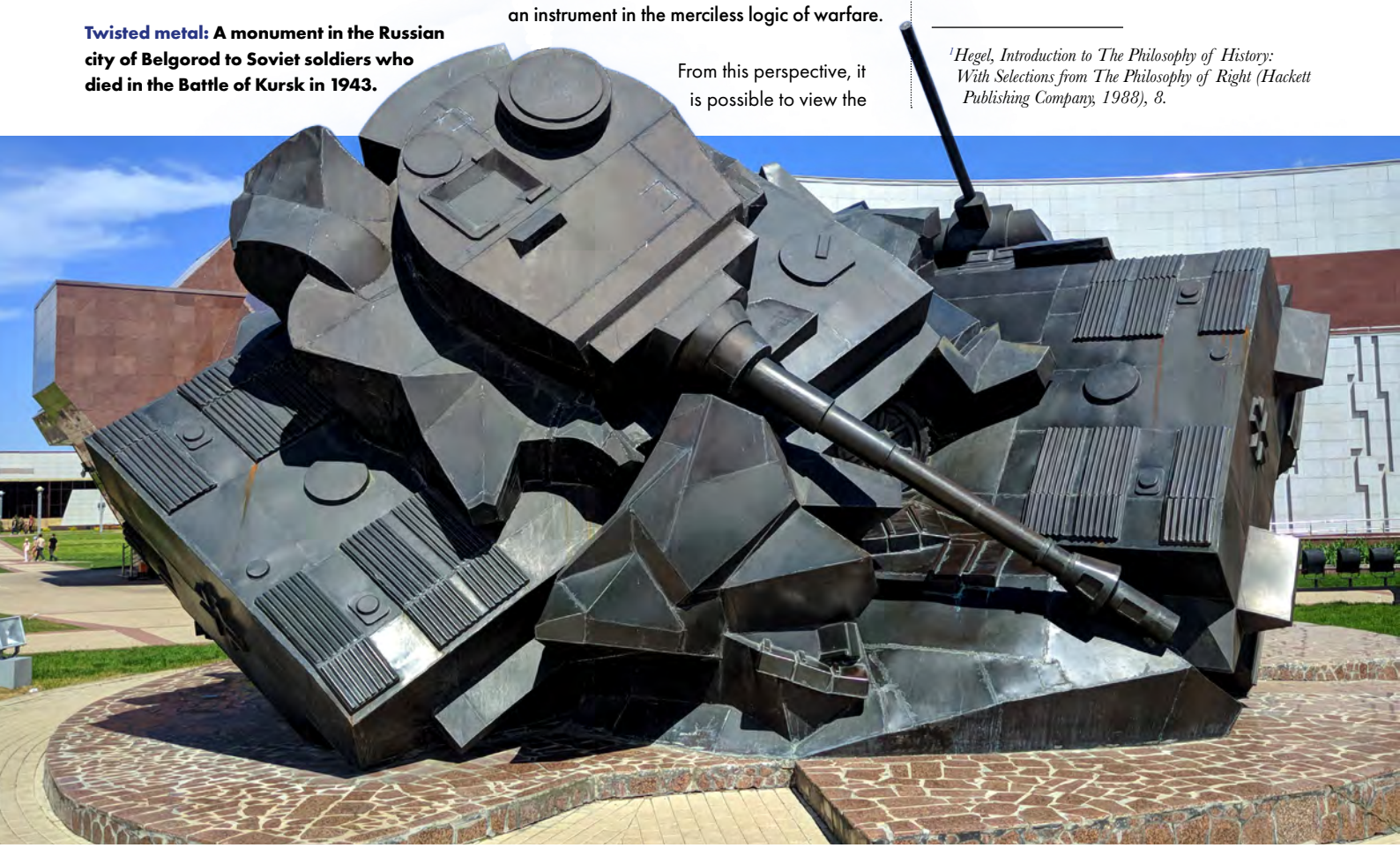
SOMETIMES events in the present resemble situations from a bygone era, and studying how a similar set of circumstances developed in the past can shed light on what course of action to take now to effect positive outcomes. More specifically, military history, due to humans' propensity to kill each other as a result of a contest of wills – to borrow von Clausewitz's terminology – is rife with typical battles that repeat themselves over and over again; the belligerents, technology and battle conditions may change, but the essence remains the same. While many military commanders conscientiously try to emulate the famous victories of renowned war leaders like Hannibal or Napoleon, others follow old battle templates unknowingly, becoming but an instrument in the merciless logic of warfare.

From this perspective, it is possible to view the Ukrainian 2023 summer/autumn counter offensive against Russia as a rerun of an 80-year-old clash of arms that occurred in a geographical area not very far away from the modern-day battlefields of Ukraine – in the proximity of a medium-sized Russian city bearing the name of Kursk.

THE 1943 BATTLE OF KURSK AND THE UKRAINIAN 2023 COUNTER OFFENSIVE: GENERAL COMPARISON

Any comparisons that involve the context of the Second World War inevitably evoke a moral dimension – rarely in the past could the antagonists in an armed conflict so clearly be defined in a polar good-evil dichotomy. As a result of this, it is important, when comparing any military force's actions to the operations of the German army, to offer a disclaimer – the analysis presented in the article is conducted from a strictly military point of view, divorced from any political connotations. The summer/autumn operations of the Armed Forces of Ukraine, while militarily similar to the

[1] *Hegel, Introduction to The Philosophy of History: With Selections from The Philosophy of Right (Hackett Publishing Company, 1988), 8.*



Twisted metal: A monument in the Russian city of Belgorod to Soviet soldiers who died in the Battle of Kursk in 1943.

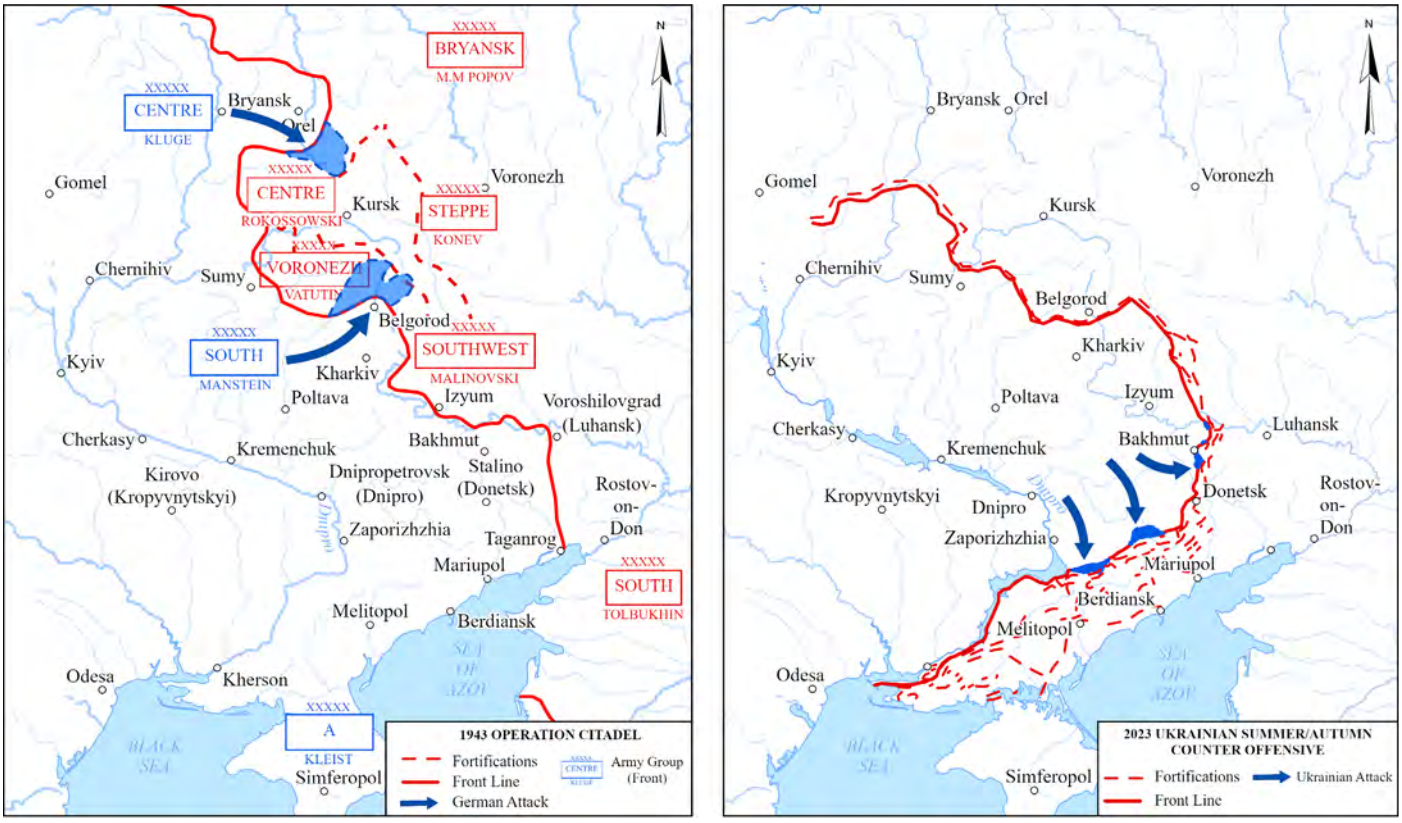


Figure 1: 1943 Operation Citadel (left) and 2023 Ukrainian summer/autumn counter offensive (right)

Wehrmacht's 1943 summer offensive on the Eastern Front, in no way look alike from an ethical perspective – Ukraine is a nation at war as a consequence of Russia's unprovoked aggression, while Nazi Germany, beyond doubt, was the aggressor, led by Adolf Hitler, a war criminal and dictator in many respects similar to Vladimir Putin.

In the spring of 1943, the German army, after suffering significant material and personnel losses from the defeat at Stalingrad the previous winter, was preparing to regain the strategic initiative by launching a major offensive against the Soviet forces, codenamed Operation Citadel ('Zitadelle') and initially scheduled for the beginning of May, 1943.[2] However, largely as a result of political interference from Hitler – who wanted to wait for the build-up of Tiger I tanks and other equipment – the offensive was delayed multiple times. This allowed the Soviets, with the help of intelligence provided by British code-breakers,[3] to rightly guess the direction and timing of the offensive, and to construct strong fortified defensive lines protected by mines and anti-tank obstacles. They even had so much time as to assemble a reserve Steppe Front (which was equivalent to a German Army Group), behind the two Fronts that were already defending the Kursk saliant – Centre and Voronezh Fronts (see Figure 1).

When the offensive was finally launched, on the 4th July 1943,[4] the front penetrations were attempted on two axes – from the north and the south – and were spearheaded by the Wehrmacht's mechanised forces. As could have been expected from a frontal assault on heavily fortified defensive positions, and with a significant numerical disadvantage,[5] the German army's armoured thrusts were soon defeated, allowing the Soviets to launch two of their own counter offensives – the Izyum–Barvenkovo offensive in July and the Donbas strategic offensive in August 1943.

[2] *Glantz and Jonathan, The Battle of Kursk (University Press of Kansas, 1999), 55.*

[3] *Healy, Zitadelle: The German Offensive Against the Kursk Salient 4–17 July 1943 (History Press, 2010), 65.*

[4] *Glantz and Jonathan, The Battle of Kursk, 81.*

[5] *Ibid., 337-338.*

[6] *Peleschuk, "Ukraine Reports 'heavy Combat' After Putin Says Offensive Has Begun," Reuters, 10 June 2023, reuters.com/world/europe/russia-reports-heavy-fighting-southern-ukraine-kyiv-silent-counterattack-2023-06-09 (Accessed 24 December 2023).*

[7] *Jones, Palmer and Bermudez Jr., "Ukraine's Offensive Operations: Shifting the Offense-Defense Balance", June 2023, csis-website-prod.s3.amazonaws.com/s3fs-public/2023-06/230609_Jones_Ukraine_Operations.pdf?VersionId=50OXVua.QRT58vSgSUc99VMMbFRo3Yup (Accessed 24 December 2023).*

[8] *Washington Post, "In Ukraine, a War of Incremental Gains as Counteroffensive Stalls, " 4 December 2023, washingtonpost.com/world/2023/12/04/ukraine-counteroffensive-stalled-russia-war-defenses (Accessed 24 December 2023).*

The Ukrainian counter offensive that started exactly 80 years after these events – in the summer of 2023 – unfortunately, shared many of the earlier chapter's features. After a prolonged politically-motivated battle for a city of no strategic and limited operational value – in this case Bakhmut instead of Stalingrad – during the winter of 2022-23, the Ukrainian army was exhausted. However, with morale still high after the autumn 2022 liberations of parts of Kharkiv and Kherson regions (in which the author of this article also took part), a major offensive was planned for April 2023, for which purpose the Ukrainians created 12 new mechanised brigades armed largely with Western-donated equipment, including Leopard 2 tanks and Bradley infantry fighting vehicles, and to a significant extent staffed by Western-trained Ukrainian personnel.[6]

Here, too, the offensive was delayed multiple times, as Kyiv, just as Berlin had in 1943, waited for the maximum build-up of tanks, armoured vehicles, ammunition and other materials, which allowed the Russians to construct an extensive network of fortifications and minefields not seen in Europe since the days of the Second World War.[7] Some sources, including Lieutenant Colonel Oleksandr Sak, the commander of the 47th Mechanised Brigade at the time of the offensive, indicated that the Russians had some prior knowledge about the direction and timing of the Ukrainian counter offensive and strengthened the expected routes of attack

with drones, anti-drone guns and thermal imagery scopes.[8] Even if no espionage took place (as was the case in 1943), it could have been possible to predict the direction of main attack with a simple logical deduction – the most obvious objectives for the Ukrainians appeared to be the southern cities of Melitopol, Mariupol and Berdiansk, the capture of which would cut the Russian forces in two and sever the 'land bridge' between Crimea and Russia proper. While following the obvious logic in war is not always the best course of action, this was exactly what the Ukrainian armed forces attempted to do.

In fact, the Ukrainian General Staff repeated the same mistake the German Army High Command (Oberkommando der Wehrmacht) did in 1943 – it made its forces frontally assault deeply-echeloned enemy defence lines with mostly mechanised forces without any hope of surprising and catching the enemy unprepared, instead relying on the assumed supremacy of its new Western weapons and beefed-up training to grind through numerous belts of defensive fortifications. And it did so by dividing its limited battle-ready formations among multiple axes of attack, dispersing them in a manner that meant the Ukrainians didn't enjoy any significant numerical advantage over the defending Russians.[9]

Close interest: The President of Ukraine, Volodymyr Zelensky is briefed by Colonel General Oleksandr Syrskyi (now commander-in-chief of the Armed Forces of Ukraine) in November 2023.

The comparison of battles eight decades apart allows for the analysis of the mistakes made by both the Germans and the Ukrainians in their summer offensives (which are the same mistakes, really), and to provide some recommendations for any military force, be it the Armed Forces of Ukraine or the British Army, that may find itself in a similar predicament, particularly when fighting against an adversary whose military doctrine stems from the Soviet methods of war, which, of course, include both China's People's Liberation Army and the Armed Forces of the Russian Federation.

RECOMMENDATION 1. AVOID MICROMANAGEMENT OF WARFIGHTING EFFORTS

President Zelensky is no Hitler; he is a well-meaning, democratic Ukrainian politician who won his presidential office in a free and fair election. However, just as Hitler did, he has a habit of micromanaging military affairs, routinely giving orders to commanders on the ground over the heads of their superiors, shuffling generals without consulting the Ukrainian General Staff, and in other ways undermining the coherent organisational command and control structure of the Armed Forces of Ukraine.[10]

Due to this political meddling and pressure, the defence of Bakhmut, to a large extent as a result of Zelensky's actions and rhetoric, was raised from a purely tactical or operational level to a national strategic one, which was absolutely out of all proportions to its real military value. Zelensky's designation of this city as "Fortress Bakhmut",[11] while devoid of any real meaning as no stationary fortifications were ever built, was reminiscent of Hitler's nominations of 'Festung' cities (Ternopil, Breslau, etc.) – to be held at all cost – which made defence inflexible and resulted in constant losses of material and troops as these 'fortresses' were often surrounded and cut off from supplies.[12]

Such political interference and micromanagement should be avoided. A clear chain of command needs to be maintained that will allow the war to be conducted in a professional manner free from political considerations and propaganda priorities. If President Zelensky thought General Zaluzhny, who was the Commander-in-Chief of the Ukrainian Armed Forces last summer, was underperforming, he had a constitutional right to replace him, but undermining military authority in the army through the firing and hiring of Zaluzhny's subordinate commanders without even informing him[13] was an extremely ineffective arrangement.

RECOMMENDATION 2. HIDE YOUR INTENTIONS AND DECEIVE THE ENEMY

For some inexplicable reason, the West and Ukraine advertised its then upcoming 2023 counter offensive in all manners possible, which even included such strange actions as official announcements of when the counter offensive would begin. On 14th February 2023 US Defense Secretary Lloyd Austin stated: "...we will support Ukraine's fight for freedom over the long haul – and help Ukraine hold and advance during the spring counter offensive."[14] In March, his Ukrainian counterpart, defence minister Oleksii Reznikov confirmed that a major counter offensive was planned for April or May, adding: "You will see [the tanks] during our counter offensive campaign."[15]

While it is difficult to imagine Nazi Germany announcing the beginning of Operation Barbarossa (the invasion of the Soviet Union in 1941) in a similar fashion, it would only make military sense to do so as part of a campaign

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[9] *Mounier, "Large Part of the Ukrainian Counteroffensive Hasn't Been Put Into Action Yet, " France24, 13 June 2023, france24.com/en/europe/20230613-a-large-part-of-the-ukrainian-counteroffensive-hasn-t-been-put-into-action-yet (Accessed 24 December 2023).*

[10] *Mazurenko, "Zelenskyy Communicates With Some Commanders Directly, Bypassing Zaluzhnyi, " Ukrainska Pravda, 4 December 2023, pravda.com.ua/eng/news/2023/12/4/7431535 (Accessed 24 December 2023).*

[11] *Reuters, "Ukraine Will Fight to Hold 'Fortress' Bakhmut as Long as It Can – Zelenskiy," 3 February 2023, reuters.com/world/europe/ukraine-will-fight-hold-fortress-bakhmut-long-it-can-zelenskiy-2023-02-03 (Accessed 24 December 2023).*

[12] *Isaev, Hitler's Fortresses in the East: The Sieges of 'Ternopol', Kovel', Poznan and Breslau, 1944–1945 (Pen and Sword Military, 2021).*

[13] *Romanenko, "Former Special Operations Forces Commander Khorenko Learns of His Dismissal From News," Ukrainska Pravda, 3 November 2023, pravda.com.ua/eng/news/2023/11/3/7427118 (Accessed 24 December 2023).*

[14] *U.S.Department of Defense, Opening Remarks by Secretary of Defense Lloyd J. Austin III at the Ninth Ukraine Defense Contact Group (As Delivered), 14 February 2023, defense.gov/News/Speeches/Speech/Article/3297356/opening-remarks-by-secretary-of-defense-lloyd-j-austin-iii-at-the-ninth-ukraine (Accessed 24 December 2023).*

[15] *Cole, "Ukraine Suggests Counteroffensive May Be Imminent," Newsweek, 30 March 2023, newsweek.com/reznikov-ukraine-counteroffensive-imminent-russia-1791357 (Accessed 24 December 2023).*

of disinformation and if the Ukrainians had, in fact, not been intending to launch a major spring/summer offensive at all.

As it was impossible to hide the transfer of vast amounts of weapons and ammunition from Western countries to Ukraine, the Ukrainian government could have argued that they were to be used for defensive purposes and that offensive actions could only be conducted if some degree of air superiority could be established – for example as a result of F-16 fighter jet donations. This may have provided the Russians with at least some degree of false security and perhaps lowered their expectations of a major Ukrainian offensive, potentially leading them to allocate less resources to building their immense (and costly) networks of fortifications – the so-called Surovikin line.

The axis of attack should also be unpredictable. In the case of the 2023 Ukrainian counter offensive, a better decision may have been to attack in an area where the Russians least expected it, perhaps in the north Luhansk region, where the hilly and wooded terrain could have provided more cover to concentrations of artillery, infantry and armoured forces. True, a front line penetration in the Zaporizhzhia region could have yielded a greater victory, but the Russians expected it and the chances of a breakthrough there were thus greatly reduced.

Keeping your plans secret to the enemy is the cornerstone of any military operation, be it defensive or offensive. As Sun Tzu remarked in his famous military treatise *The Art of War* more than a thousand years ago: "Let your plans be dark and impenetrable as night, and when you move, fall like a thunderbolt."[16]

RECOMMENDATION 3. ATTACK THE ENEMY AT THE MOST VULNERABLE POINT OF TIME AND PLACE

In operational planning there is always a trade-off between building up enough troops and material to launch an offensive, and attacking swiftly and without delay to forestall

Dynamic decoy?: The author argues the wait for F-16s could have been used to direct attention away from Ukraine's counter offensive.

or disrupt an enemy's defensive preparations. It was a key factor in both the 1943 Battle of Kursk and the 2023 Ukrainian counter offensive. In his memoirs, Field Marshal Erich von Manstein, who was considered by General Guderian to have been the German army's finest operational brain,[17] argued that the delays caused by Hitler were the primary reason why the offensive failed, as no amount of new tanks would compensate for the time lost due to the delay.[17]

The Soviets, and the Russians 80 years after them, were probably most vulnerable in the spring rather than in the summer of 1943 and 2023 respectively, having had less time to fortify their defensive lines. That was the moment when they had to be attacked, even if that meant fewer numbers of equipment and troops to conduct the offensive with.

Also, if military resources are limited, particularly in relation to your enemy, concentrating them at one point of main effort is likely to provide the highest chances of success. In practical terms it means focusing the breakthrough on one narrow front, instead of dispersing your forces over two or more axes of attack – the mistake the Germans made in 1943 (they would have had higher chances of penetration if all their armoured forces were massed in the South) and the Ukrainians repeated in 2023 (attacking on three axes: Melitopol, Berdiansk and around Bakhmut).[19]

Another question to ask is why the attack had to be conducted at all? General Guderian, another operationally talented German commander, put this question to Hitler in May 1943,[20] as it was clear that Germany did not have sufficient resources for a decisive offensive. The same question should have been considered by Ukraine's military and political leaders before their 2023 offensive. Arguably a much better course of action would have been to wait for the Russians to attack. After all, a strong preference for attack over defence was and continues to be the central tenet of Russian military doctrine – and it should be used against them. Then, with a strong mobile reserve force, the Ukrainians could have attempted to defeat the Russian onslaught in a battle of manoeuvre, and used it as an opportunity to launch their own counter offensive at a time when Russian forces in Ukraine would be at their most vulnerable.

RECOMMENDATION 4. USE TACTICAL RETREAT TO BREAK THE STALEMATE

While General Zaluzhny recognised that his forces had reached a stalemate on the battlefield and that a transition from positional to manoeuvre warfare was an absolute necessity if Ukraine had any chance of a military victory,[21] he does not seem to have considered the possibility of a tactical retreat in order to lure the enemy into a vulnerable position and destroy them in a battle of fire and manoeuvre.

Tactics known as feigned retreats have been known to military commanders for thousands of years and used in such battles as Thermopylae (480 BC), Hastings (1066), Austerlitz (1805) and Grozny (1994-95), to name but a few. The basic principle is to entice the enemy away from a strong position into one of weakness, and to counter attack with force – breaking cohesion, causing chaos and panic and, hopefully, leading to a decisive defeat of your adversary.

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[16] *Sun Tzu, The Art of War (Diamond Pocket Books, 2021), 27.*

[17] *Guderian, Panzer Leader (Da Capo Press, 2002), 90.*

[18] *Manstein, Lost Victories (Presidio Press, 1982), 447.*

[19] *Washington Post, "In Ukraine, a War of Incremental Gains as Counteroffensive Stalls."*

[20] *Guderian, Panzer Leader, 308.*

[21] *Zaluzhnyi, "Modern Positional Warfare and How to Win in It," The Economist, 1 Nov 2023, infographics. economist.com/2023/ExternalContent/ZALUZHNYI_FULL_VERSION.pdf (Accessed 24 December 2023).*

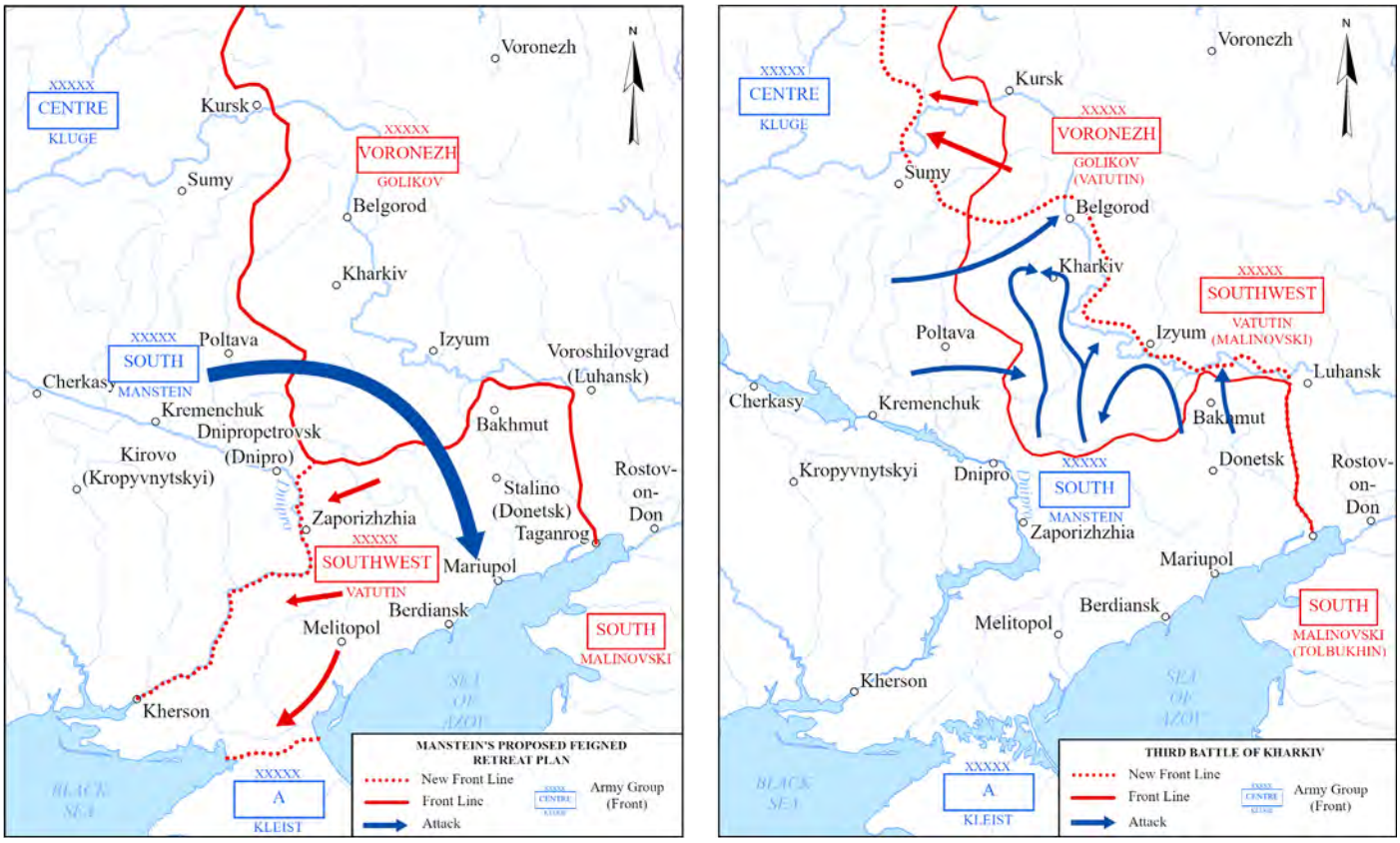

Figure 2: Manstein's proposed feigned retreat plan (left) and the actual Third Battle of Kharkiv (right)

In his aforementioned memoirs[22] Manstein makes it absolutely clear that the uninspiring plan for the Battle of Kursk only came from Hitler's insistence not to give up any territory voluntarily. The original plan was, after the debacle at Stalingrad, to retreat from Donbas as far away as Lower Dnipro in the south, stretching the Soviet armies' cohesion and lines of communication, while assembling a strong mobile armoured force in the area west of Kharkiv. Then, in a powerful counter attack, the armoured manoeuvre forces would smash the over-extended Soviets in the southerly direction, pressing them against the Sea of Azov and thus encircling a large group of Soviet troops (see Figure 2). Instead, Hitler prohibited the evacuation of Donbas and so Manstein had to go with a less ambitious plan that came to be known as the Third Battle of Kharkiv (19th February to 15th March 1943), which still inflicted significant casualties on the Soviets[23] and created the Kursk salient.

In a similar manner, Ukraine's political and military leaders should be prepared to temporarily give up some 'sacred soil' in order to lure occupying Russian forces into unfavourable terrain and make them vulnerable on their flanks (see Figure 3). In an effort not to raise suspicion of a trap, possible areas of feigned retreat operations may be front-line sectors where the Russians are actively trying to make a penetration. After prepared back-up defensive positions are fortified and manned, a controlled breakthrough for the Russians could be allowed. Then, behind strong prepared defence lines, the Ukrainian army could mass their manoeuvre forces, supported by a large concentration of drones, and launch an unexpected attack with the aim of cutting off the Russian spearheads and seizing operational initiative.

The Russians have traditionally been weak at manoeuvre warfare as they rely on a strict top-down command and control system that doesn't allow much initiative for the commanders on the ground.[24] The Ukrainians, while deriving from the same school of military thought as the Russians, rely much more on small teams of manoeuvrable forces with local commanders making most of the tactical decisions. As a result, during the mobile phases of this war, particularly at the beginning of the conflict and during the Kharkiv offensive, the Ukrainians often outflanked slow-moving Russian units. Consequently, battles of manoeuvre favour the Ukrainians and put the Russians at a disadvantage. But to be able to inflict the maximum amount of losses on the enemy, the Ukrainian armed forces must focus their limited resources on another important aspect of 21st century warfare that could give it a decisive relative advantage over the Russians – the drone war.

RECOMMENDATION 5. EXPLOIT TECHNOLOGY TO GAIN AN ADVANTAGE ON THE BATTLEFIELD

With technological advancements in anti-tank guided missiles and, more recently, first-person view kamikaze drones, the tank is no longer enjoying the central role it did for much of the 20th century. The revolutionary military technology that will take its place is, beyond doubt, the aerial drone.

In the current Russo-Ukrainian war, unmanned aircraft systems have become omnipresent, relaying detailed continuous battlefield intelligence to commanders and staff planners in real time, and laying down accurate fires – both directly and indirectly – on enemy forces as soon as they are detected. Due to their relatively small dimensions and weight, they can be easily transported from one sector of the front to another, making them a potent mobile asset. And, in the case of first-person view kamikaze drones, which have a price

[22] *Manstein, Lost Victories, 404 and 446.*

[23] *Glantz and House, "When Titans Clashed: How the Red Army Stopped Hitler (Kansas University Press, 1995), 296.*

[24] *Wasielewski, "The Roots of Russian Military Dysfunction," 31 March 2023, Foreign Policy Research Institute, fpri.org/article/2023/03/the-roots-of-russian-military-dysfunction (Accessed 24 December 2023).*

[25] *Roblin, "Drones on the Front Line for Ukraine's Counteroffensive," Inside Unmanned Systems, 19 October 2023, insideunmannedsystems.com/drones-on-the-front-line-for-ukraines-counteroffensive (Accessed 24 December 2023).*

Figure 3: Suggested Ukrainian feigned retreat operation

tag of around £350 per unit,[25] they can be produced and deployed in large quantities. Indeed, during a press conference at the end of last year, Zelensky promised the production of one million drones in 2024,[26] enough to build a drone force capable of operational-level actions against the Russians. However, as the Ukrainian bureaucracy is notoriously corrupt and inefficient, the state and donor countries' funds for this purpose should primarily be channelled through respected Ukrainian non-governmental organisations (which already supply 90 to 95 per cent of all drones that reach the front lines).[27] If the increased drone funding is allocated to the Ukrainian Ministry of Defence or affiliate government agencies (with their inability to organise mass production of shells, armoured vehicles or any other armaments) it is doubtful that even a small amount of the promised drone production figures would be met or that, once produced, these drones would reach front line soldiers instead of being simply stored in warehouses.

Producing revolutionary weapons systems in isolation is not enough; new doctrine for their deployment on the battlefield needs to be devised. Large formations of drone-equipped troops should be formed – for example, drone brigades with thousands of operators and tens of thousands of unmanned aircraft and electromagnetic warfare systems in each. These could then be used – in offensive or defensive roles – to conduct massed drone attacks. Doing so along narrow fronts could create densities of at least 200 drones per square kilometre. With such a strong covering force, mechanised formations could then attack the enemy as a part of a combined arms operation, as shown in Figure 3.

This unmanned aircraft systems and electromagnetic warfare force should not be created from scratch, but based on existing units that have proved themselves capable in battle – the widely circulated videos of drone-destroyed Russian assets are a good testimony to their lethal power.

RECOMMENDATION 6. ASSIGN FRESH TROOPS AND NEW WEAPONS TO EXISTING FORMATIONS

During the Second World War, the German high command often assigned freshly trained troops and the best weapons to newly created formations, particularly Waffen SS divisions subordinate to Heinrich Himmler. As a result of this diversion, regular units of the Wehrmacht were disadvantaged. Lacking combat experience, freshly minted Waffen SS divisions often suffered casualty rates substantially higher than their regular German army counterparts.[28] Similarly, the Ukrainians have previously assigned the majority of freshly raised troops and the best of Western weapons to newly formed brigades (47th Mechanised Brigade, for example) instead of veteran formations such as 93rd Mechanised or 3rd Assault Brigade. While the 47th Brigade has since proved itself a potent force, at the time of last year's offensive 70 per cent of its troops lacked combat experience.[29] A better course of action would have been to pull experienced brigades from the Battle of Bakhmut to equip them with new Western weapons, replenish their ranks with fresh troops, update their training in Germany and the UK, before tasking these re-equipped and rested crack units with spearheading the counter offensive.

CONCLUSION

The recommendations presented in this article are far from exhaustive and there are other areas of improvement, particularly relating to technical and tactical aspects, that could be flagged but which are not suitable for sharing in a public publication. However, the most important lesson that can be drawn is the value of collectively considering historical evidence, military theory and the impact of new technologies. As noted by Mark Milley, former US chairman of the Joint Chiefs of Staff, in a widely read 2023 article, the character of war changes while its nature remains the same.[30] Studying both will give an intelligent commander the instruments he or she needs to win battles in the 21st century.

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[26] *Reuters, "Ukraine to Produce One Million Drones Next Year, Zelenskiy Says," 19 December 2023, reuters.com/world/europe/ukraine-produce-one-million-drones-next-year-zelenskiy-says-2023-12-19 (Accessed 24 December 2023).*

[27] *Danylenko, "Air Reconnaissance of the AFU: How Many More Volunteers and People Will Collect Funds for Drones, Where is the State?" BigKyiv, June 19, 2023 (in Ukrainian), bigkyiv.com.ua/aerorozvidnyk-zsu-skilky-shhe-volontery-j-lyudy-budut-zbyraty-koshty-na-drony-de-derzhava (Accessed 24 December 2023).*

[28] *Manstein, Lost Victories, 188.*

[29] *Washington Post, "In Ukraine, a War of Incremental Gains as Counteroffensive Stalls."*

[30] *Milley, "Strategic Inflection Point: The Most Historically Significant and Fundamental Change in the Character of War Is Happening Now – While the Future Is Clouded in Mist and Uncertainty," Joint Force Quarterly 110 (3rd Quarter 2023), 6-15.*

A BREACH TOO FAR: FALSE LESSONS FOR UKRAINE?

AUTHOR

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SINCE Ukraine's failed attempt at an armour-heavy combined arms breakthrough of Russian lines last summer, there has been an argument around whether Ukrainian brigades had the skills to implement Western doctrine or whether that doctrine is unsuited to the age of drones and jamming. This article proposes a third view – that the doctrine was flawed in the first place.

This standpoint comes with caveats: I am an historian and psychologist not a sapper, and though I spent years watching British units attempting armoured breaching on exercises, I had to assume that convenient declassified US doctrine (*Field Manual 3-34.2*)[1] is close to what Ukrainian brigades were taught; I also had to assume that unclassified sources on the Ukrainian breaching operation (such as the inimitable Sergio Miller)[2] are better at cutting through the layers of bias than I am. I can vouch for the history section though, as it is mostly based on my own work combining hundreds of primary sources to unpick the tactics British soldiers used in 1945.[3]

OBJECTIVE SPARROW

The nub of *Field Manual 3-34.2* is its Appendix D, where a notional mechanised brigade assaults Objective Sparrow, supposedly "a worst-case scenario in which a task force is given the mission to conduct a breaching operation against a well-equipped, well-prepared enemy defence". Despite being a "very difficult" mission, the brigade has ample planning and rehearsal time, and near-perfect information on enemy defences and plans. The only friction before H-hour comes from mechanical failure in one of the tanks fitted with a mine blade, which is soon switched to another vehicle.

Meanwhile, the defenders have not used their time wisely, with only three rows of uniformly and widely dispersed mines, a line of concertina wire, then a string of isolated motor-rifle platoons whose dismounts have not dug-in. The main mine belt is 140 metres deep and the mines can be lifted using a simple mine blade. The only depth to the defence comes from a dismounted platoon on the southern

[1] *bits.de/NRANEU/others/amd-us-archive/fm3-34.2(02).pdf*

[2] *wavellroom.com/2023/06/14/tactical-lessons-ukraine-battle-at-orikhiv-7-8-june*

[3] *The historical section of this article is based on unit and formation war diaries held at the National Archive in the WO 171 series, plus communication logs (e.g. WO 205/955), post operation reports (e.g. WO 291/1335) and archival material provided by the KOSB Museum. Additional material and maps have been taken from the BAOR Battlefield Tour Guide (WO 106/5846) and from published histories, particularly "Advocate", From Normandy to the Baltic (the 44 Brigade history) and H.G. Martin, History of the 15th Scottish Division 1939-1945.*

Breakthrough artist: The British Army's Trojan (pictured below) is an armoured engineer vehicle designed to open routes through complex battlefield obstacles.

flank, and a motor-rifle platoon counter-attack force. Each of the static platoons has a small anti-personnel minefield 400 metres to its front (Figure 1).

The brigade plan is to use an armoured breaching force comprised of two armoured infantry companies, two tank companies and an armoured engineer company. Their equipment includes two mine clearing line charges, six tanks fitted with mine clearing blades, and two tanks with mine rollers. This force will cut two lanes through the minefield and defeat the platoon on Objective Cuba, allowing the remainder of the brigade to break out to the east and clear north through the rest of Objective Sparrow while engineers widen the breach for follow-on forces.

Despite losing two vehicles to indirect fire, the mission proceeds as planned, with perfect communications allowing the command chain to direct successive fire support groups to suppress the pockets of enemy north of the breach. Masking with smoke and massed indirect fire allows the close support for the breaching force to focus on the single platoon defending Objective Cuba. Three of the four vehicles in this platoon are destroyed by precision munitions before the breaching force crosses the start line and the fourth vehicle is soon destroyed too. At this point, the mine clearing line charges, ploughs and rollers cut their lanes without loss, Cuba and Sparrow are secured, and armour is unleased eastwards for tea and medals.

Although the outcome is very different, the Objective Sparrow plan is not noticeably dissimilar from what we know of the scheme attempted by Ukrainian brigades last June. It is also very close to the breaching schemes British brigades and battlegroups have attempted with mixed results on exercises since World War II. There is a good reason for this similarity.

BRITISH ROOTS

At the end of World War II, US forces had little experience with armoured breaching of this kind as they lacked the British profusion of specialist armour – flail tanks, flamethrower tanks [such as the Churchill Crocodile pictured right], Armoured Vehicle Royal Engineers, armoured bridging equipment and Kangaroo armoured personnel carriers. American breaching ops were usually successful but pedestrian events, with a handful of tanks acting as mobile pillboxes to counter the Germans' actual pillboxes. In US breaching, tank, anti-tank and direct fire artillery helped dismounted sappers and infantry to methodically crumble defences and obstacles.

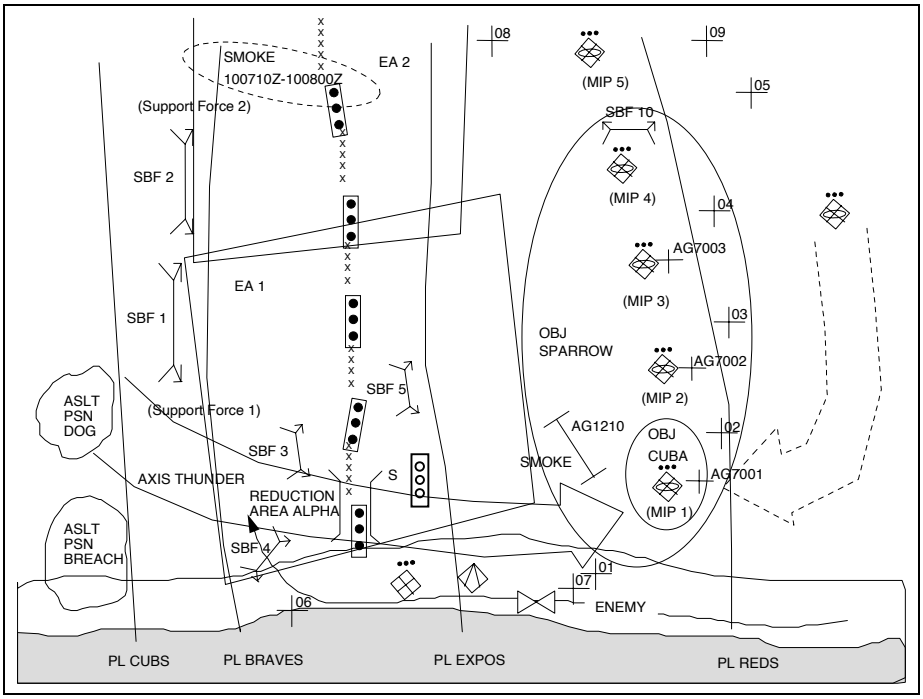


Figure 1: Assault on Objective Sparrow, FM 3-34.2

Western armoured breaching doctrine was therefore based on British and Canadian experience in late World War II, with the best-publicised example being that of 44 (Lowland) Brigade, part of 15th (Scottish) Division. The armoured breaching template was set in 44 Brigade's 'perfect battle of Blerick' on 3 December 1944, and then repeated with minor changes to penetrate the Westwall (Siegfried Line) on 8-9 February 1945, and again just nine days later to capture the German town of Goch.

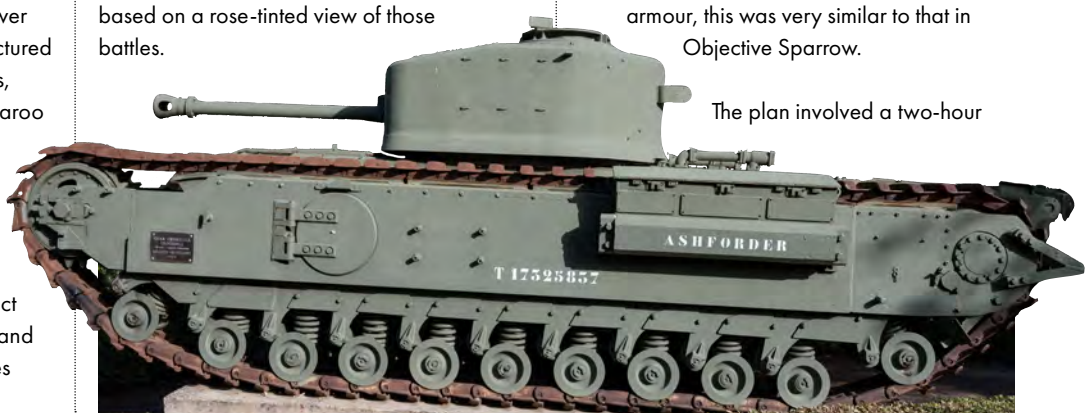
Although considerably more chaotic and costly than the notional assault on Objective Sparrow, in each case 44 Brigade breached the obstacle and overwhelmed the immediate defending force trading tens of British casualties for hundreds of German prisoners. The 44 Brigade history notes that on each occasion the Blerick formula was 'a complete and overwhelming success'. This assessment was then echoed in the battlefield tour guides that trained generations of British officers, while being incorporated into operational research and doctrine. That post-war doctrine was based on a rose-tinted view of those battles.

BLERICK

Blerick was undoubtedly a British victory, but the town was the last toehold west of the Maas (Meuse) and German command was 'reluctant to venture a large stake' defending it. The valued unit that had been defending Blerick was replaced by a third-rate force of 300 men the day before the attack. These men were stretched over a four-kilometre perimeter, had no armour support and few anti-tank guns. Contrary to the suggestion in Figure 2 [right], the defenders had only a sparse minefield before them and no bridge behind them, it having been blown the week before.

Against this, 44 Brigade comprised four infantry battalions in Kangaroo armoured personnel carriers, a tank battalion, a company of armoured engineers with a variety of armoured bridging assets, a company of flamethrower tanks, about 40 mine clearing flail tanks and indirect fire support from 500 artillery pieces. So, in addition to air supremacy, 44 Brigade attacked with a force ratio around 7:1 in men, 5:1 in guns and 300:0 in armour. But for the lack of defending armour, this was very similar to that in Objective Sparrow.

The plan involved a two-hour



preparatory bombardment, after which the armoured breaching force would advance behind a creeping barrage and smoke screen. The gun tanks would deploy on the edge of the defences and give direct fire support as the flails and sappers attempted to clear six lanes (not two as in Objective Sparrow) on a 1,200-metre front, moving in bounds with the gun tanks until they reached the anti-tank ditch where the armoured engineers intended to lay six bridges. Once the bridges were in, the flails would again take point until the lanes were clear to the edge of town, at which point the armoured infantry and flamethrowing Crocodiles would dash forward, debus and fight an urban battle.

With wet ground and such a mass of armour, a little bogging caused a lot of congestion. H-hour slipped by 60 minutes as waves of vehicles churned chokepoints, causing later vehicles to bog. The two central lanes could not be cleared but few mines were discovered on the other four lanes. On the righthand lanes, it took the mounted infantry an hour to pass through and begin the assault. Infantry on the left, where the minefield is marked, were forced to advance dismounted and so 'took a bit longer' to pass through the obstacle.

Despite the delays and confusion, the two lead battalions suffered fewer than 10 personnel casualties on their approach. Within 90 minutes, both battalions were in the centre of town and the two follow-on battalions were pushing out to secure the flanks. Three hours later the battle was won, with 44 Brigade capturing nearly 250 prisoners while suffering fewer than 50 casualties, mostly to indirect fire from across the river. One tank was destroyed by a mine, but no armour was lost to direct fire.

THE WESTWALL (SIEGFRIED LINE)

Two months later (8-9 February 1945) the Blerick scheme was repeated on the Westwall, but with extra engineers and with armoured infantry as part of the breaching force rather than waiting behind to form the bridgehead. (Figure 3 shows an idealised version of the planned lane breach. Note the width of the breach and the implied lack of depth to the obstacle.) There had been no time pressures at Blerick but the breach of the Westwall had to be completed as quickly as possible because it was the break-through (that hyphen is important) that came between a break-in battle where other formations secured the four-kilometre-deep outpost line, and as with Objective Sparrow, breakout by a follow-on force. The whole scheme had tight timings to ensure Anglo-Canadian formations could exploit into the German depth before reinforcements arrived to contain the breakout.

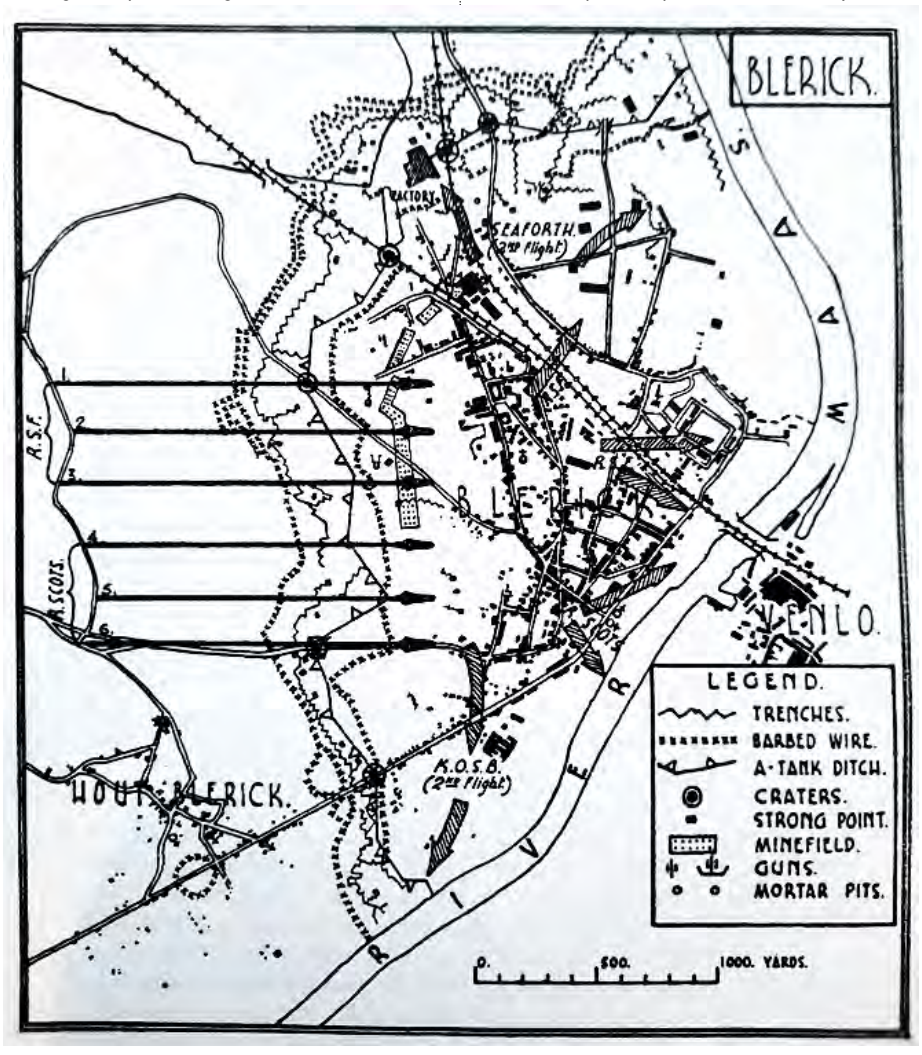


Figure 2: 44 Brigade attack Blerick

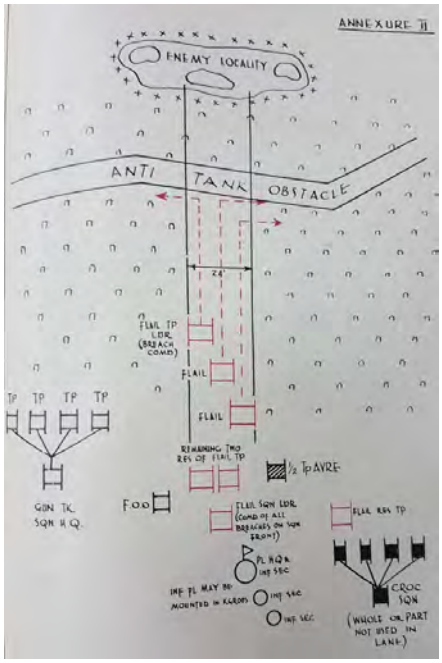


Figure 3: Armoured combined arms breaching in the style of 44 Brigade

Initial planning had assumed that the ground would be frozen and that this would allow easy off-road movement for armour but a thaw eight days earlier undermined that assumption. Like Objective Sparrow, a complicated multi-phase scheme was developed. The force ratios were very like Blerick and Sparrow.

The plan soon unravelled because, as with Blerick and almost anywhere in North West Europe between October and April, wet weather caused bogging. The bogging was made much worse in this case because over 200 armoured vehicles had been deployed during the earlier break-in battle – of the 70 flail tanks deployed on the break-in, their fondness for bogging meant only one did the job ahead of the assaulting infantry. Heavy going forced most vehicles onto fragile roads that had been hammered by Allied artillery, causing a tremendous traffic jam. The problem was more due to having too much armour and artillery than having too much weather.

44 Brigade added another 300 armoured vehicles to this confusion, so it took longer for their armoured infantry to drive through the outpost line than it had taken the first wave of dismounted infantry to fight through it. The breaching force was finally unleashed seven hours late, and even then, with only a quarter of its planned strength. Then, in perhaps the worst ever example of communications failing at H-hour, the breach was poorly

coordinated with suppressive fires, and the poor performance of flails meant only two of the planned five lanes could be opened – not three as suggested in Figure 4. One lane soon failed when an anti-tank gun became wedged in the bridge struts, so most of the Brigade was canalised onto a single crossing.

Meanwhile, almost unnoticed by higher commanders, and despite being held back to allow armour to catch up, dismounted units either side of the breaching force had walked through the sparsely defended Westwall. The breaching action itself was unopposed, the disorganised rear area troops defending it having been doubly outflanked and infinitely outgunned. Only one mine was reported in war diaries.

The Brigade's accidental vanguard was 6th Battalion, The King's Own Scottish Borderers (the solid red goose eggs at Figure 4), who were originally tasked only to secure half of the bridgehead. However, congestion was so bad and resistance so slight that the Borderers were directed to press on, eventually capturing a breakout objective that had been assigned to another brigade. By the end of the day, 6th Battalion had suffered only 10 personnel casualties, one vehicle casualty and taken over 200 prisoners.

This was a remarkable success for the King's Own Scottish Borderers battalion group – they alone had secured four battalions' worth of objectives – but it was not a triumph for armoured breaching. The dismounted battalion to the north (2 Gordons) had captured 135 prisoners with no recorded casualties and could have launched 10 hours earlier if they had not been held back to allow the armoured breaching force to assemble. By the time 6th

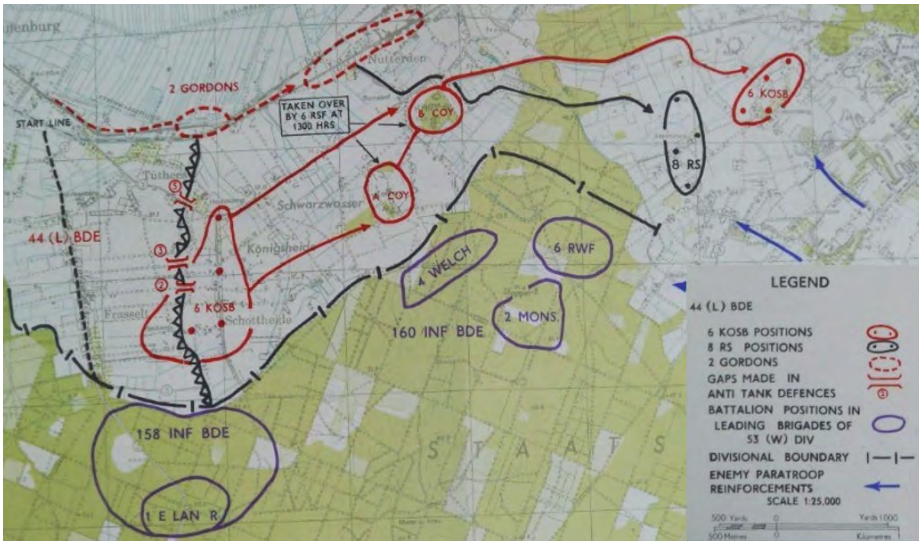


Figure 4: Rose-tinted history on the Westwall

Battalion, The King's Own Scottish Borderers reached their final position they were meeting the German reinforcements that the whole army group plan had been designed to outpace. The operation was stalled for days as a result.

GOCH

Having learnt some lessons from the Westwall, 44 Brigade generated a more sedate plan to reach the town of Goch (Figure 5), southeast of the Reichswald, with the Westwall breach to the north of the forest. The Goch plan depended on another formation bridging an outer anti-tank ditch nine hours before the brigade's 1500 H-hour, allowing ample time to mass the brigade on its start lines. The plan on H-hour was to methodically apply the idealised drill at Figure 3 to breach an inner ditch and expected mines, then assault the town. Instead of five or six lanes, only two breaches were planned as these had roads running to them as there were difficulties massing enough equipment for more breaches.

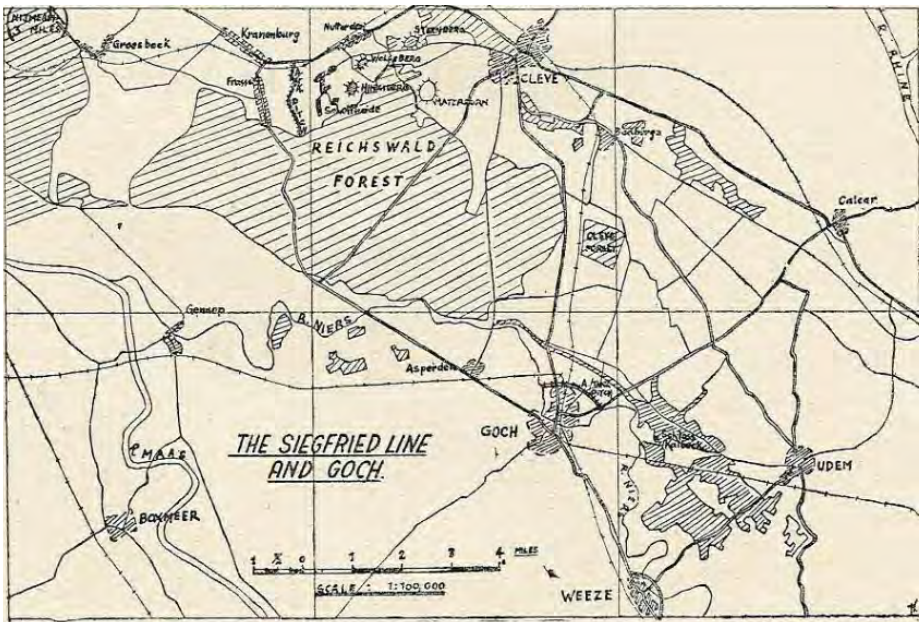


Figure 5: The Westwall (Siegfried Line) and Goch to the southeast

(The third crossing shown at Figure 6 was considered wishful thinking.) Once the breach was complete, the pace was intended to pick up, with a rapid assault on the town aiming to achieve one of three contingent end states, depending on the extent of German resistance.

- Option 1, the ideal, saw two armoured battalion groups dashing through the northern half of town, with the infantry in APCs, bouncing a bridge over the River Niers then quickly exploiting to the south.

- Option 2 had the battalions dismount their infantry in town and, with tank support, have each company capture one of eight sections of town while the APCs went back for a third battalion who would cross the river.

- In the case of very heavy resistance, Option 3 had a company group debus in each of those eight locations (Figure 6), create an 'overnight fortress' then secure the town the following morning.

Only that last plan required coordination with 51st (Highland) Division, which was due to attack the southern half of town overnight if Options 1 and 2 failed.

Come the day (18 February) even the worst-case scenario was not realised. A host of frictions meant the flail tanks were not deployed but, once again, very few mines were encountered. Yet even without the flails, each crossing became a hub of confusion, collapsed bridges and bogging, with one breach under direct fire, the other sporadically mortared, and a single anti-tank gun causing chaos. Armour eventually crossed eight hours late, then two company groups advanced just 300 metres before the infantry were forced to debus on the edge of town and fight an unsupported urban battle in darkness and fog.

The brigade's other ten companies attacked dismounted. Only three of the eight overnight fortresses were occupied.

Meanwhile, south of the river, 51st Division had stealthily erected a crossing and just after midnight sent 5 Black Watch on a dismounted attack without armour support. They reached the town centre and threatened the bridge that was the escape route for the northern defenders. Back north 44 Brigade sent its armour in at dawn and most of the defenders surrendered. The Brigade's leading battalions suffered 76 casualties to take 446 prisoners, but this victory was due to a combination of 51st Division's encirclement and some excellent low-level armour-infantry cooperation once tanks got into town. It was a victory achieved despite the disastrous armoured breaching operation.

OLD LESSONS

The first draft of history for any battle is subject to local propaganda and simple mis-reporting. The second draft is usually written as an anchor for old soldiers' memories and an inspiration to new soldiers. But with Blerick, the Westwall and Goch, those drafts were embellished by cap badge and theoretical biases about what combined arms, urban and break-in battles should be like, and then passed on to later generations as doctrine. Important details were obscured by reference to the 'perfect' Blerick formula repeatedly being 'a complete and overwhelming success', and the light casualties and high prisoner haul were therefore falsely attributed to successful armoured breaching.

Digging a little deeper and uniting the dozens of war diaries and communication logs from squadron to corps, has shown that the battles that formed the doctrinal template were won by a combination of luck, initiative and overwhelming combat power. Peep under the map markings that Michael Howard called "an almost blasphemous travesty of the chaotic truth" and unpick the trite shorthand of "confused fighting", and it is clear these battles came close to disaster. Had there been any defence to speak of on the Westwall, the noisy overcrowded forming-up point would have been hammered; if armoured columns had entered Goch as planned, a few dozen Panzerfauste would have transformed the attack into a Grozny-like bloodbath.

Yet digging into primary sources has also shown what really worked. On the Westwall and in Goch, success owed as much to dismounted troops sneaking over and around obstacles as the attempt to punch through with armour. The uncomfortable truth is that on most terrain armour is forced into chokepoints that are prone to bogging, easily detected and subject to bottlenecks where traffic moves slower than soldiers on foot. In each case a dismounted attack could have been launched much earlier (at least 18 hours earlier in Goch) and, by doing so, helped achieve the operational objective. However, it must be admitted that in some instances, like the attack by 5 Black Watch, the dismounted option succeeded because noisy armour fixed the enemy's attention.

"The commentary on Ukraine keeps recycling the contrasting phrases: 'drones have changed everything' and 'it's just like World War I'. That contrast is TikTok-shallow but the apparent polarisation of technophiles versus Luddites reflects a real dearth of sound tactical history."

We cannot blame 44 Brigade: they had no chance to repeat the Blerick formula on drier ground and they were too busy fighting to question the assumption that the formula would work on deeper and better defended obstacles. We cannot blame historians: they are slaves to word count and publishing deadlines. But by the time history was translated into doctrine, the assumptions of the brigade and the compressions of historians should have been questioned. Instead, a doctrine built on sand was passed to Ukraine and then western commentators had the cheek to criticise the victims for not applying that doctrine correctly. Or for not adapting it to our perceptions of what has changed.

NEW LESSONS

Armoured breaching against a competent enemy always has been extremely difficult, even without the new surveillance, electronic warfare and precision strike battles laid across it, but a flawed perception of the past has exaggerated the transformative effect of new technology. A detailed solution cannot be offered here, but it will need more lanes, more deception, better suppression of defenders and perhaps, as General Zaluzhnyi requested, new breaching tools.

This is not just a problem for armoured breaching. (I expect readers can see parallels in their own specialisms; my main concern is with tactical psychology but that won't fit this forum.) The commentary on Ukraine keeps recycling the contrasting phrases: 'drones have changed everything' and 'it's just like World War I', though often with drones replaced by artificial intelligence and so on. That contrast is TikTok-shallow but the apparent polarisation of technophiles versus Luddites (aren't we all both at times?) reflects a real dearth of sound tactical history.

It is not a new problem either. J.F.C. Fuller noted that doctrine develops through a conflict between memory and imagination – from understanding what worked and did not work in past wars, then estimating the change imposed by new technology or procedures. The problem is that without constraints of memory, we get caught up in wild imaginings. Immediately after making his comment on memory and imagination, Fuller went promptly into hyper-imagination mode with Plan 1919, variations on 'the tank will always get through' and an obsession with the occult.

Effective force design – that is making a force that fits the enduring nature and changing character of war – needs a careful consideration of history and technology, not a knee-jerk reset that overestimates the uniqueness of current conditions.

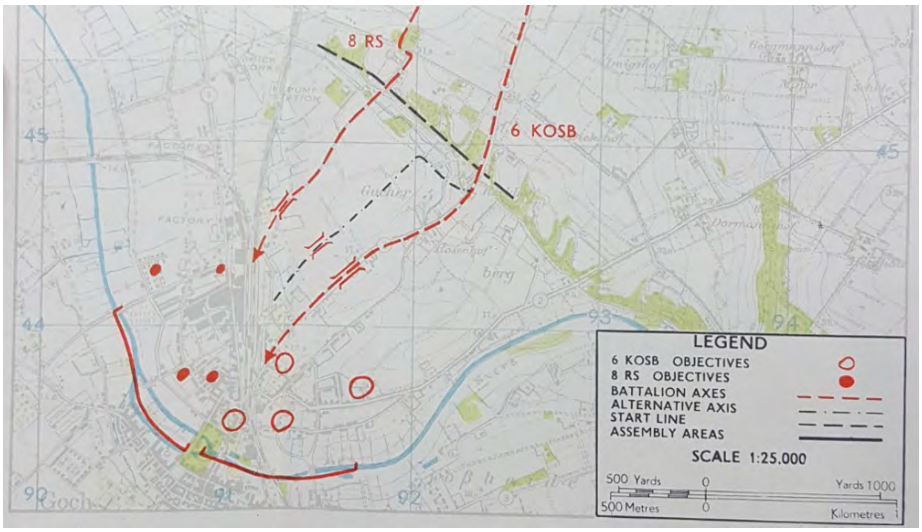


Figure 6: 44 Brigade's worst-case plan for capturing Goch

TELIC TROUBLES: REFLECTIONS ON BRITAIN'S BASRA BAPTISM

AUTHOR

Lieutenant Colonel James Chandler is SO1 Strategic Engagement with the Army Staff in London. The conflict in Iraq was the focus for both his MPhil at Cambridge and his PhD with King's College London.

MARCH of this year marked the 21st anniversary of the beginning of Britain's six-year military campaign in Iraq. In the spring of 2003 the British government made the momentous decision to commit its Armed Forces to a US-led invasion and the removal of the dictator Saddam Hussein.[1] Although the plan was to decapitate the Baathist regime, install a democratic administration and then quickly withdraw, events did not unfold in this way. Instead, Coalition forces – including the British military in Basra – became embroiled in a protracted period of nation-building while confronting a multi-faceted insurgency that, in the eyes of local people, had more legitimacy than the foreign occupying powers.[2]

This article highlights first-hand accounts from some of those who held central roles in the deployed force during Britain's first and crucial year in Basra. It explores the chaotic nature of post-invasion Iraq and argues that British troops were placed in an impossible position during a period of high hopes and missed opportunities. Unlike many Iraq-related studies, this article is not an assessment of the political aspects surrounding Britain's decision to invade.[3] Rather, the focus here is on the operational decisions made by senior planners who effectively placed Britain's deployed force into a military straitjacket and thereby set the conditions for a subsequent campaign that many felt "ended a very long way from success".[4] Although broader studies have explored this period in part,[5] what follows offers a new perspective provided by senior leaders who were at the heart of Britain's military mission during the first year of post-invasion Iraq.

These senior leaders are three former

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[1] *Christoph Bluth, 'The British Road to War: Blair, Bush and the Decision to Invade Iraq', International Affairs 80: 5 (2004), 871-892, 871.*

[2] *Toby Dodge, 'Review Essay: How Iraq Was Lost', Survival 48: 4 (Winter 2006-2007), 157-172, 163.*

[3] *See Patrick Porter, Blunder: Britain's War in Iraq, (Oxford: Oxford University Press, 2018) and Richard North, Ministry of Defeat: The British War in Iraq 2003-2009, (London: Continuum, 2009).*

[4] *The Iraq Inquiry, Public Statement by Sir John Chilcot (6 July 2016), 11, available via: webarchive.nationalarchives.gov.uk/20171123123519/http://www.iraqinquiry.org.uk/media/247010/2016-09-06-sir-john-chilcots-public-statement.pdf, accessed 8 July 2020.*

[5] *See Tim Ripley, Operation Telic: The British Campaign in Iraq 2003-2009, (Lancaster: Telic-Herrick Publications, 2016) and Ben Barry, Blood, Metal and Dust: How Victory Turned into Defeat in Afghanistan and Iraq, (Oxford: Osprey Publishing, 2020).*

commanding officers of The Light Dragoons who all, by pure happenstance, served in Basra during the first 12 months of Britain's mission in Iraq. The then commanding officer of The Light Dragoons, Lieutenant Colonel David Amos led two squadrons and a regimental headquarters in Iraq from May to November 2003 as disaggregated elements of 19 Light Brigade. 19 Brigade were replaced in theatre by 20 Armoured Brigade, which was commanded by Brigadier David Rutherford-Jones. Finally, Major General Andrew Stewart arrived in December 2003 as general officer commanding of the newly formed, British-led division in Basra: Multinational Division (Southeast). Combined with other historical accounts, these eyewitnesses provide further insight into some of the early strategic missteps that helped set Britain's Iraq campaign on course for an unfavourable future.

During the invasion British troops successfully secured Iraq's southern oilfields and the country's second largest city, Basra.[6] On transition to post-conflict operations, therefore, the British-led division was given responsibility for Iraq's four southern provinces of al Muthanna, Dhi Qar, Maysan and Basra. As

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the local population were mostly Shia Muslims and largely unsupportive of Saddam's Sunni regime "the British expected their sector in the south to be relatively straightforward".[7] However, few realised that the Shia south contained myriad tribal and political factions who would use organised crime, smuggling and ultimately violence to establish their ascendency in the post-Baathist era. Nor was the significant influence of Iran anticipated or understood at all.[8] British troops were sitting on a socio-political powder keg and senior planners had underestimated "how much worse things could get if they turned bad".[9]

It was not long before 'things' did indeed turn bad. The first wave of post-invasion troops, 19 Brigade, were surprised at how southern Iraq was a more challenging operating environment than expected: "Chaos ensued. There was no authority, no employment, and a large and restless population in Basra."[10] Coalition planners did not anticipate how the removal of the Baathist regime would also collapse the local economy, civil administration and security institutions. This was only compounded by the looting and unrest that ransacked government buildings and crippled an already ailing infrastructure.[11] It was an unexpected situation that the military mission was wholly unprepared for: "The situation wasn't properly understood. It wasn't something we were ready for."[12] The same could be said for government aid and development agencies who had little to no presence in theatre. Unlike previous experiences in the Balkans, therefore, Iraq would require British troops in a more hands-on role: "It was a complete mis-assessment by the strategic planners."[13]

The British military now had sole responsibility for delivering security, governance, the economy and essential services. It was a problem affecting all Coalition forces in Iraq at the time. Despite UK insistence, US planners did not wish to delay the invasion to allow more comprehensive post-invasion planning to occur.[14] With precious few options available, this meant that British troops had to adopt ad hoc solutions to address the unfamiliar challenges they now faced: "The brigade commander said to me 'I'll take care of security, you'll have to do everything else!'."[15] Thus, Lieutenant Colonel Amos found himself in charge of 19 Brigade's impromptu efforts to rebuild Basra. It was a mammoth undertaking that he and his staff lacked both the resources and expertise to tackle effectively: "It was a case of doing what we could with what we had and making things up as we went along."[16] The impact of the invasion had been grossly underestimated and it was obvious to all that "preparations for Iraq after Saddam Hussein were wholly inadequate".[17]

For Major General Andrew Stewart, this inadequacy resulted from a deeper problem: "I think the fundamental difficulties with the Iraq campaign [in 2003] was that nobody truly understood the complexities involved."[18] Coalition planners had failed to appreciate the damage done by more than 30 years of Baathist misrule, 13 years of UN sanctions and three wars in two decades.[19] For General Stewart, pre-invasion assessments had not been sufficiently thorough: "We didn't understand just how badly broken it was."[20] Strategic planners were also surprised by the socio-political chaos that now engulfed Coalition forces, despite Iraq's well-documented history of near constant ethno-sectarian violence and political instability.[21] Consequently, British troops were trying to remedy a situation they neither understood nor had the means of addressing. Many on the ground felt that the rapid success of the initial invasion had become bogged down

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[6] *Joel Rayburn and Frank Sobchak (Eds.), The US Army in the Iraq War Volume 1: Invasion, Insurgency, Civil War, 2003-2006, (Carlisle, PA: Strategic Studies Institute and US Army War College Press, 2009), 85 and 98-99.*

[7] *Lawrence Freedman, 'Britain at War: From the Falklands to Iraq', RUSI Journal 151: 1 (February 2006), 10-15, 15.*

[8] *Andrew Stewart, 'Iraq 20 Years On', presentation to The Light Dragoons Officers' Dinner, Cavalry and Guards Club, 9 November 2023.*

[9] *Christopher Elliott, High Command: British Military Leadership in the Iraq and Afghanistan Wars, (London: Hurst, 2015), 109.*

[10] *Interview with Lieutenant Colonel (Retd.) David Amos, 22nd March 2021.*

[11] *Larry Diamond, 'What Went Wrong in Iraq', Foreign Affairs 83: 5 (September/October 2004), 34-56, 36.*

[12] *Interview Amos.*

[13-14] *Stewart, 'Iraq 20 Years On'.*

[15] *David Amos, 'Iraq 20 Years On', presentation to The Light Dragoons Officers' Dinner, Cavalry and Guards Club, 9 November 2023.*

[16] *Interview Amos.*

[17] *Iraq Inquiry, Public Statement, 2.*

[18] *Interview with Major General (Retd) Andrew Stewart, 18 January 2021.*

[19] *Toby Dodge, 'The Ideological Roots of Failure: The Application of Kinetic Neo-Liberalism to Iraq', International Affairs 86: 6 (2010), 1269-1286, 1279.*

[20] *Interview Stewart.*

in an unexpected nation-building project set against overwhelming odds: "We ran into a brick wall."[22]

For Brigadier Rutherford-Jones, a significant problem concerned the absence of a co-ordinated British response. As diplomats and development officers eventually arrived in Basra, it became clear that there was no comprehensive plan and no synchronised approach: "It was not co-ordinated. Everyone just made things up as they went along."[23] This was reflective of Britain's civilian mission to Basra which, in 2003, was disorganised, slow and lacked practical support.[24] Britain's chief diplomat in the city, Sir Hilary Synnott, believed his masters in London were "unable to mobilise Government departments to produce the necessary results".[25] In 2003 Britain's reconstruction programme lacked detailed planning and synchronised execution: "Nation building requires careful co-ordination. The reason we were floundering in Basra was because there was no co-ordinated strategy in the first place."[26] This lack of a higher-level plan would plague much of Britain's six-year campaign in Iraq.[27]

Compounding this anaemic civilian reconstruction effort was Britain's initial military campaign that, ironically, suffered from the opposite condition: "I thought the whole thing was far too kinetic."[28] Much like wider Coalition tactics at the time, there was an early British focus on 'search and destroy' missions against Basra's criminal gangs and emerging political militias. As these groups had growing local support, this approach drove a wedge between local people and the British military.[29] For some, not enough emphasis was placed on civil-military co-operation and building consensus: "Those bigger strategies, they didn't seem to exist."[30] Perhaps Britain's physical approach was understandable after June 2003

"Britain's presence in southern Iraq involved too much stick and not enough carrot."

when six British soldiers were murdered by a local mob in Maysan Province. But, despite ample use of Coalition reconstruction initiatives like the Commander's Emergency Response Programme, to local people Britain's presence in southern Iraq involved too much stick and not enough carrot: "We weren't winning the hearts and minds side of the battle. Everything just felt too kinetic."[31]

Specifically, Britain's initial approach struggled to understand the social dynamics of southern Iraq. General Stewart felt this reflected a lack of strategic forethought across the Coalition: "We completely failed before deployment to understand where we were going and what the influences were."[32] This was especially the case for the role of Iran which, for some, would become the strategic victors of the Coalition's invasion.[33] Resultantly, the British force was unprepared for the complicated web of ethno-sectarian structures in southern Iraq and how best to work within them: "We didn't really use the Iraqi people and their leaders to help us."[34] Lacking cultural awareness and local knowledge, Britain's planners failed to instigate an approach that harnessed the role of local Imams and community elders: "There was a fundamental network to be exploited here."[35] Often this was for practical reasons like a lack of interpreters: "We had one or two guys who could speak infant Arabic. That was it."[36] But mostly this was down to Britain eagerly joining a foreign intervention before its troops had time to ready themselves for the demands of the human terrain that they would be operating in: "There was a vacuum. We should have been much better prepared."[37]

There were also concerns that Britain's early campaign failed to deliver what Iraqis really wanted: "All our actions should have been designed to improve the standard of living for the people of southern Iraq."[38] But General Stewart found that the quality of life for local people actually deteriorated during Britain's

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[21] *For instance: Charles Tripp, A History of Iraq, (Cambridge: Cambridge University Press), 2000.*

[22] *Interview Amos.*

[23] *Interview with Major General (Retd) David Rutherford-Jones, 17 May 2021.*

[24] *Rory Stewart, Occupational Hazards: My Time Governing in Iraq, (London: Picador, 2006), 73.*

[25] *Hilary Synnott, Bad Days in Basra: My Time as Britain's Man in Southern Iraq, (London: I.B. Tauris, 2008), 252.*

[26] *Interview Rutherford-Jones.*

[27] *See Thomas Waldman, 'British 'Post-Conflict' Operations in Iraq: Into the Heart of Strategic Darkness', Civil Wars 9: 1 (March 2007), 61-86.*

[28] *Interview Rutherford-Jones.*

[29] *Warren Chin, 'Why Did It All Go Wrong? Reassessing British Counterinsurgency in Iraq', Strategic Studies Quarterly 2: 4 (Winter 2008), 119-135, 129.*

[30-31] *Interview Rutherford-Jones.*

[32] *Interview Stewart.*

[33] *Stewart, 'Iraq 20 Years On' and Barry, Blood, Metal and Dust, 13.*

[34-35] *Interview Rutherford-Jones.*

[36-37] *Interview Amos.*

first year in Basra: "The entire south-east was rather worse than it had been before the war in terms of electricity, sewage and other services."[39] Stewart also found his division was unable to acquire the funding required to deliver reconstruction: "We just couldn't get the money."[40] All Coalition aid was managed centrally and allocated to the country's trouble spots, such as Baghdad and al Anbar, which left little support for the south: "This caused us immense difficulties."[41] Basra's low priority status would persist for much of Britain's campaign and the quality of life for local people would go from bad to worse, leading some to conclude that southern Iraq suffered "one of the worse reversals of fortune of any area of Iraq since the fall of Saddam's regime".[42]

Indeed, despite pre-war promises, Britain's first year in Basra struggled to deliver any tangible benefits from a post-Baathist era: "We weren't making life better for anybody."[43] Local people soon viewed British troops less like liberators and more like Saddam's former henchmen: "We had become an occupying force."[44] This perception was only reinforced by images of prisoner abuse from the Abu Ghraib detention facility and scenes of widespread destruction from the US assault on Fallujah. Although both events occurred well outside the British sector, few Iraqis distinguished between different Coalition militaries and local distrust in Multinational Division (Southeast) was heightened: "What happened [in Abu Ghraib and Fallujah] put a real kibosh on us saying 'we're here to make life better for you'."[45] The images from Abu Ghraib and Fallujah "instantly gave the impression that the Coalition's regime in Iraq was an illegitimate occupation" and became a recruitment tool for Iraq's Sunni insurgency and also for the Shia militias in Multinational Division (Southeast).[46]

But events like Fallujah were also indicative of a wider problem. Despite close co-operation during the invasion, intra-Coalition coherence diverged during the occupation. This was most apparent during periods of crisis, especially the uprisings inspired by radical Shia cleric Moqtada al Sadr.[47] In April 2004 the southern cities of Nasiriyah and Basra were overrun by Shia militias and General Stewart had some uncomfortable conversations with his US chain of command: "My American boss was saying 'go and retake Basra' and I was saying 'I've got to do it a different way'."[48] This 'different way' involved trying to kill as few people as possible and letting local Iraqis resolve their own problems. But as the US approach at the time was 'one of strong coercion', US leaders in Baghdad regarded Stewart to be too conciliatory and asked for his removal.[49] It would not be the last time that US leadership in Baghdad questioned the British approach in Basra.[50]

But the Shia revolt did highlight a flaw in Britain's Iraq campaign: insufficient troops. As the initial invasion lacked legitimacy with UK domestic audiences, senior British planners were keen to reduce troop numbers as rapidly as possible. Thus, the British contingent decreased from 46,000 in May 2003 to just 9,500 by July the same year.[51] This meant that "forces on the ground were thinly stretched",[52] a fact General Stewart made clear to his masters in London: "I was saying that if you want me to get this place back under control then you need to send me more troops as I can't do it with what I've got."[53] But it was not to be. Compared to other campaigns, Britain's presence in southern Iraq would remain an economy of effort. For example, the ratio of British troops to Iraqi civilians in Basra was approximately 1:370, a figure "in sharp contrast to the 1:50 ratio of British peacekeepers to civilians in Kosovo or 1:65 in the Belfast area of Northern Ireland".[54]

Issues of troop numbers aside, Britain's Iraq campaign was nevertheless hindered by its subordinate status in the US-led Coalition. The lack of strategic direction and the failure to instigate rapid reconstruction were symptomatic of Washington's "largely improvised approach to nation-building".[55] This was most readily apparent with the Coalition Provisional Authority or CPA, the US-led civilian body hastily established in late April 2003 to help Iraq rebuild itself.[56] The CPA's infamous opening edicts regarding de-Baathification and the disbandment of the Iraqi Security Forces were no doubt based on noble aspirations, but effectively made more than 400,000 government employees redundant at a time when arguably the Coalition needed them most.[57] Desperately seeking qualified Iraqis with which to kickstart Basra's reconstruction, Lieutenant Colonel Amos was left struggling to find local leaders with whom he could legitimately engage with: "I think the CPA got that one wrong."[58]

These strategic missteps were only compounded by the CPA's ruthless pursuit of an idealistic ideology that prevented consideration of other possible approaches: "The problem was that the Americans distrusted anybody who was an Imam or a tribal leader."[59] The British military found little enthusiasm for any approach that did not support Washington's appointed Iraqi Governing Council or their provincial representatives: "The Americans had a very hard fist on that sort of thing."[60] But these political appointees were mostly Iraqi émigrés who, although popular in the Pentagon, had less local legitimacy than Saddam Hussein and, accordingly, struggled to stimulate genuine political progress.[61] Consequently the lofty US ambitions to make Iraq a beacon of democracy in the Middle East bore little fruit: "That's just not how this part of the world works."[62]

But these political errors in Baghdad, which often lay outside British influence, were deepened by campaign errors in Basra that lay very much within. Despite an enviable record in counterinsurgency, Britain's planners did not base the initial campaign on a traditional counterinsurgency approach: "The mission

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[38] *Interview Stewart.*

[39] *Andrew Stewart, 'Southern Iraq 2003-04 Multinational Command', in Jonathan Bailey, Richard Iron and Hew Strachan (Eds.), British Generals in Blair's Wars, (Farnham: Ashgate Publishing Ltd, 2013), 79-88, 79.*

[40] *Interview Stewart.*

[41] *Stewart, 'Southern Iraq', 81.*

[42] *Michael Knights and Ed Williams, Calm before the Storm: the British Experience in Southern Iraq, Policy Focus #66, (Washington Institute for Near East Policy, February 2007), 1.*

[43-45] *Interview Stewart.*

[46] *Barry, Blood, Metal and Dust, 221.*

[47] *See Patrick Cockburn, Muqtada al-Sadr and the Fall of Iraq, (London: Faber and Faber, 2008).*

[48] *Interview Stewart.*

[49] *Stewart, 'Southern Iraq', 85.*

[50] *Not least during Operation Charge of the Knights. Jack Fairweather, A War of Choice: The British in Iraq 2003-2009, (London: Jonathan Cape, 2011), 327-340.*

[51] *Ripley, Operation Telic, 410-41.*

[52] *Chin, 'Why Did It All Go Wrong?', 128.*

[53] *Interview Stewart.*

[54] *Knights and Williams, Calm before the Storm, 7.*

[55] *David Ucko, 'Lessons from Basra: The Future of British Counterinsurgency', Survival 52: 4 (August-September 2010), 131-158, 151.*

[56] *See James Dobbins, Seth Jones, Benjamin Runkle and Siddharth Mohandas, Occupying Iraq: A History of the Coalition Provisional Authority, (Santa Monica, CA: RAND, 2009).*

[57] *James Pfiffner, 'US Blunders in Iraq: De-Baathification and Disbanding the Army', Intelligence and National Security 25: 1 (February 2010), 76-85.*

[58] *Interview Amos.*

[59] *Interview Rutherford-Jones.*

[60] *Interview Amos.*

[61] *David Phillips, Losing Iraq: Inside the Post-war Reconstruction Fiasco, (Boulder, CO: Westview Press, 2005), 164.*

[62-63] *Interview Stewart.*

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was to win the hearts and minds... and we didn't fight hard enough to achieve that."[63] By sustaining warfighting rules of engagement and failing to deliver resources for reconstruction, senior British planners seemed content for post-invasion efforts to maintain an overly kinetic focus: "In counterinsurgency we needed to seize the moment but it was just impossible to gain traction."[64] This inability to see that winning the peace in Iraq required more than just military might failed to set the British campaign on the right footing. It also created an overly confrontational operating culture that, arguably, led to human rights abuses and the death of Baha Mousa, a Basra hotel receptionist who died of his wounds in September 2003 after being physically abused in a British military detention facility.[65] Despite superficial signs, such as patrolling in berets, Britain's initial campaign in Iraq did not reflect a traditional counterinsurgency approach as senior British civilian and military leaders refused "to risk blood and treasure to conduct effective counterinsurgency warfare".[66]

Although the final phase of Britain's Iraq campaign may have concluded more positively than the popular narrative suggests,[67] few would be willing to promote Britain's six-year intervention in Basra as an exemplar of a modern military success.[68] As the eyewitness comments in this article suggest, the seeds of this misadventure were sown in the first chaotic year immediately following the invasion. British forces were placed in an impossible position as senior planners had not set the wider conditions required for success. At the Coalition level, British military efforts were hamstrung by the absence of a properly resourced and co-ordinated civilian reconstruction plan and by their junior status in the US-led Coalition where policy decisions in Washington and Baghdad had "stark consequences for the provinces" like Basra.[69] Meanwhile, at the national level, Britain's campaign was flawed by insufficient troop numbers, a mistaken reliance on kinetic operations, a failure to invest in traditional counterinsurgency methods and an inability to work with local Iraqis in a manner that reflected local cultural and societal norms. These early errors had deep downstream consequences and it would take several years and some high-profile embarrassments before Britain's operational hierarchy would address the shortcomings in their Basra campaign.

Despite the Chilcot Inquiry and several internal studies,[70] a danger persists that insights from Basra could be lost with the onset of what Geraint Hughes calls "Iraqnophobia" – a collective desire to forget this unpopular intervention.[71] Indeed, others believe that Iraq has become "the crazy aunt" living in the Army's attic: "A familial embarrassment nobody wants to talk about."[72] This institutional amnesia should be resisted as insights from Iraq have enduring relevance. Although current focus lies with war in Ukraine and what this foretells about the nature of modern conflict, the world's trouble spots have quietly continued to worsen. Instability remains in the resource-rich Middle East and the deterioration of Sub-Saharan Africa continues to drive immigrants upon European shores.[73] It is therefore conceivable that the British Army could be asked to help stabilise another challenging environment not unlike that experienced in Iraq. Once again, the Army could find itself alone amongst a hostile community, facing an unfamiliar mission in increasingly ambiguous circumstances. If so, insights from Britain's first year in Basra may provide some guidance.

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[64] *Interview Rutherford-Jones.*

[65] *Barry, Blood, Metal and Dust, 315-316.*

[66] *Peter Mansoor, 'The British Army and the Lessons of the Iraq War', British Army Review 147 (Summer 2009), 11-14, 14.*

[67] *See Daniel Marston, '"Smug and Complacent?" Operation Telic: The Need for Critical Analysis', British Army Review 147 (Summer 2009), 16-23 and Sandy Storrie, '"First Do No Harm": 7 Armoured Brigade in Southern Iraq', British Army Review 147 (Summer 2009), 29-34.*

[68] *Andrew Mumford, The Counter-Insurgency Myth: The British Experience of Irregular Warfare, (Abingdon: Routledge, 2012), 125-146.*

[69] *Ucko, 'Lessons from Basra, 151.*

[70] *See UK MoD, Operations in Iraq: An Analysis from the Land Perspective, (December 2004), UK MoD, Stability Operations in Iraq (Op TELIC 2-5): An Analysis from a Land Perspective, (July 2006) and UK MoD, Operations in Iraq: January 2005-May 2009 (Op TELIC 5-13) – An Analysis from the Land Perspective, (29 November 2010).*

[71] *Geraint Hughes, 'Iraqnophobia', RUSI Journal 157: 6 (December 2012), 54-60.*

[72] *David Betz and Anthony Cormack, 'Iraq, Afghanistan and British Strategy', Orbis (Spring 2009), 319-336, 327.*

[73] *UK MoD, Global Strategic Trends: The Future Starts Today, Sixth Edition, (Shrivenham: Development, Concepts and Doctrine Centre, 2018), 158-165 and 200-211.*

AS EASY AS RIDING A BIKE?

AS the pips of the radio news marked 5am, Captain Tom Weeves inched slowly towards the main gate in his 2004-plate VW Polo. He'd been adjutant of the 3rd Battalion (there wasn't actually a 1st or 2nd Battalion any more) for one year, three months, 18 days and 23 hours and was relishing the opportunity to do a 'senior captain's' job that would demonstrate his worth to promote to major. As would subsequent demanding 'senior captain's' jobs. In the meantime, everything that went on behind this particular stretch of wire was his business. Which is why he was immediately concerned by the sight of a young soldier shivering just outside of it.

"Are you cold, Dolly?"

"I am, sir," replied Private Parton.

Noting Private Parton appeared to be wearing his entire 1157 clothing issue in a 'Joey from *Friends*' way and the somewhat dilapidated guard hut he had for shelter, Weeves drove into camp with the words "leave it with me" and a solemn promise to make the soldier's future stints on stag more comfortable.

Later that morning, having asked the RSM to enhance Dolly's subsequent *9 to 5s* with a heater, he was stood at his stand-up desk when he sensed a familiar gait approaching the door. Major Gordon Best (who was known by everyone, including his mother, as George) had been welfare officer for six months having fought off strong competition from

AUTHOR

The Boxer is a serving British Army officer who floats around the Service like a butterfly and whose words *can* sting like a bee.

Sociology graduate Captain Cosmo Clark-Jones. Fortunately for Weeves (everyone called him 'Weeves' rather than Tom), George didn't close the door when he came in, which normally meant a morning akin to watching *The Jerry Springer Show*, *The Jeremy Kyle Show* and *Crimewatch* simultaneously.

The welfare officer, as was traditional, came straight to the point. "You know that free money the CO said we had to spend by next week or we'd lose it? Well, I've chatted to the RSM and we've come up with a solution."

"When you say 'free money' do you actually mean the Enhanced Commanding Officer's Public Fund to enable the smooth running, efficiency and cohesion of the unit and the sum approved by the unit finance authoriser subject to financial regularity and propriety as laid down in JSP 770?," Weeves suggested.

George nodded. "That's the badger, Private Jordan suggested PlayStations and Xboxs in every room in the block but that didn't sound very cohesive."

Weeves involuntarily rolled his eyes as he watched 18 emails arrive in his and the CO's inbox in as many seconds, all of which were marked 'urgent' or 'answer required by 1200hrs today'.

George continued, oblivious to Weeves' communication woes on the grounds he rarely troubled himself with the administrative angst of answering emails: "Sergeant Bowers has suggested we buy mountain bikes. He's done all the admin and the boys and girls can take them out on the hills as adventure training."

This sounded instantly preferable to 'cash for consoles' and as the Brigade had only given the Battalion eight days, including the weekend, to spend the money, despite the email chain showing they'd known about it for six weeks, Weeves was keen to ensure the soldiers benefited.

George handed over a thin pile of papers. "He's done all the figures, got quotes from local companies and even filled in the form for the CO."

"Brilliant," said Weeves, making a mental note to congratulate Sergeant Bowers when he next saw him. Which wouldn't be long given Bowers lived in a Service Family house immediately behind his own and could be spotted most mornings, in nothing but his threadbare pants, feeding his cats.

Weeves' wait for a first sighting of the Battalion's new transport being pedalled

in anger took a little longer, however, and, when it did come six weeks later, was not as expected. Rather than clocking the top-of-the-range mountain bikes bound for an adrenalin-pumping circuit of the camp's scenic surrounds, he witnessed two members of the QM's department saddled up for a sedate cycle to the mess for a mid-morning coffee.
Anxious to ensure the expensive bikes weren't being used for 'increasing the emoluments (whatever that meant) or personal entitlements of any person', he asked the welfare officer what was happening.

"Funny story," chuckled George, although it occurred to Weeves he was unlikely to find it amusing in any way. "It's not been as easy as we'd thought. Turns out the boys and girls can't just take the bikes out and use them. They need a qualified MIAS instructor, risk assessment, permission for TOPL... it's a proper ball-ache to be honest."

"Send Key Setting, Over?," a perplexed Weeves responded, despite being someone who'd never used an unencrypted radio and didn't actually know what BATCO or a key setting was.

"Mountain Bike Instructor Scheme and Training on Public Land," explained George. "MIAS is a two-day course in Scotland, but they're over-subscribed and the next one isn't until March next year. And TOPL is the thing you need if you want to go out of camp and use the hills. Sergeant Bowers said annex A to chapter five of JSP 907 took hours to fill in and he's still waiting for permission from the Holy Trinity to do the initial recce. Oh and the civvy in the transport office has told him he can't use the minibus because CGS had informed him personally that the British Army needs to save money."

Weeves was still trying to work out how Mountain Bike Instructor Scheme generated the acronym MIAS. Then the realisation hit him that despite thousands of pounds being spent on mountain bikes, in all good faith and with the best of intentions, they were now being ridden on tarmacked roads solely to ensure the portly riders could get first dibs on the posh biscuits. Demoralised, it dawned on Weeves there just wasn't enough time in the day to fight all the bureaucratic battles. And he was doing 14-hour shifts as it was, much to the exasperation of his wife.

Determined to cheer himself up and in need of a small victory, he popped his head inside the

"Rather than clocking the top-of-the-range mountain bikes bound for an adrenalin-pumping circuit of the camp's scenic surrounds, he witnessed two members of the QM's department saddled up for a sedate cycle to the mess for a mid-morning coffee."

RSM's office and asked about the heater he'd requested for the guard room. "Yup, all done on the day you flagged it – the Provo Sergeant popped one in there." Weeves liked the RSM, he was part of the reason he'd stayed in the Army. A thoroughly professional and decent man, the RSM was revered by the soldiers and Weeves enjoyed learning from him, even if it was just over a brew.

So, as he approached the gate on his way out of camp, Weeves was more than a little disheartened to see the soldier guarding the gate shivering and stamping her feet by the side of the road.

"Are you cold, Elvis?," Weeves asked.

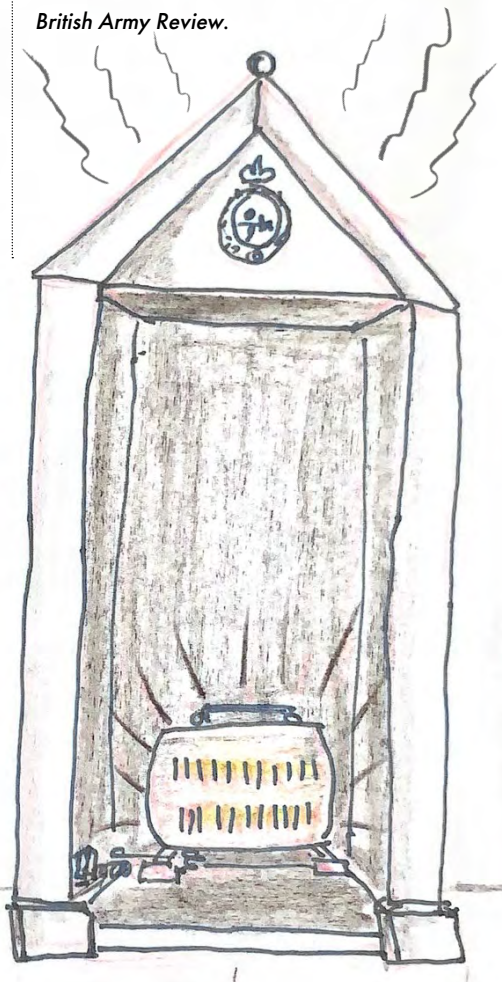
"Yes sir, I'm freezing," replied Private Presley.

"Why don't you go in the guard hut?"

"Because some Muppet has put a heater in there, it's like a bloody sauna," she replied.

Weeves smiled and shook his head. As he drove home he remembered what his first boss had told him: "Remember, you work for an organisation that drives with the lights on during the day and turns them off at night. Once you understand that, everything the Army does will make sense."

***The Boxer* will return in the next edition of *The British Army Review*.**



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TITLE
The New Politics of Russia (revised and updated edition)

AUTHOR
Andrew Monaghan

REVIEWER
Robert McNamara, Visiting Fellow, CHACR

A RUSSIAN REALITY CHECK

When *The New Politics of Russia* was first released in the summer of 2016 it was commended as being "a must read for Western decision-makers" and its author, renowned Russianist and frequent CHACR guest lecturer Dr Andrew Monaghan, credited for presenting a stark warning that the "West's capacity to understand Russia" had been "gravely run down".

The call-to-arms for a refocus and reasons for a major re-think mapped out in print by the founding director of the Russia Research Network have since been indelibly underscored by Moscow's 'special military operation' and the return of attritional conflict to Europe. And while history will ultimately determine to what extent external misjudgements and misperceptions may have abetted Vladimir Putin's expeditionary ambitions, if asked why so many in the West were seemingly blind-sided by flawed analysis of what makes Russia tick, Monaghan would be forgiven for simply directing eyes to his earlier efforts. Fortunately, the Senior Associate Fellow at RUSI is not one to swerve difficult questions regarding the Kremlin and has instead supplemented his previous works, which include *Power in Modern Russia* (2017), *Dealing with the Russians* (2019), *Russian Grand Strategy in the Era of Global Power Competition* (2022) and *The Sea in Russian Strategy* (2023), with a revised and updated edition of *The New Politics of Russia*.

The thinking from the original – a "convincing analysis of the strategic dissonance between the West and Russia" – is placed squarely in current context; further emphasises where assessments of Russia go awry; and sets out the key questions to be asked in order to develop a greater understanding of the long-term strategic contest that now defines relations with Moscow. Monaghan also takes the opportunity to provide his view on the wider implications of the Russian invasion of Ukraine in 2022, arguing that the resulting war is not just of local or regional importance but fits within a wider, much broader international struggle; the first major event of a long-term global upheaval.

Serendipitously released as Russia's leader of 24 years 'secured' a fifth term by a landslide, the revised edition advances the argument that democracy in the Federation continues to recede, with Putin's government being reinforced by a younger generation of loyal followers. Although highlighting Putin's enduring reign, noting that support for dissenting "revolutionary figures"– such as the late Alexei Navalny – are exaggerated by a Western media wishing for change, *The New Politics of Russia* encourages readers to look beyond stale, President-centric narratives, instead advocating an holistic assessment of Russia's political structure. To not challenge the concept of "Putin's Russia" is to adhere to an inaccurate stereotype that became invasive in the West as it "masked the complexities of Russian politics", argues Monaghan. Removing the incumbent head of state is not the silver bullet many hope, the author suggests, citing a diversity of Russian attitudes – with many of the population holding an unfavourable view of the West.

Similarly, the book also encourages the reader to move away from viewing Russia through a Western lens, one framed through progressive history and "transitionology", and provides a resource that lifts the veil on the seemingly contradictory nature of Russian power.

Monaghan asserts that a "multi-disciplinary study of Russia that builds an empathetic understanding of Russian history, society and politics, and includes accurate linguistic and conceptual interpretation" is needed to better predict Russian actions and to counter the extreme degradation in institutional expertise since the Cold War.

Far more than just an 'I told you so' from Monaghan, this newly-updated edition of *The New Politics of Russia* represents a refreshed and valuable resource that will enlighten both casual observers and experts alike.

LOST IN TRANSLATION?

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TITLE
The Russian Way of Deterrence: Strategic Culture, Coercion, and War

AUTHOR
Dmitry (Dima) Adamsky

REVIEWER
Major Luke Turrell,
Executive Officer, CHACR

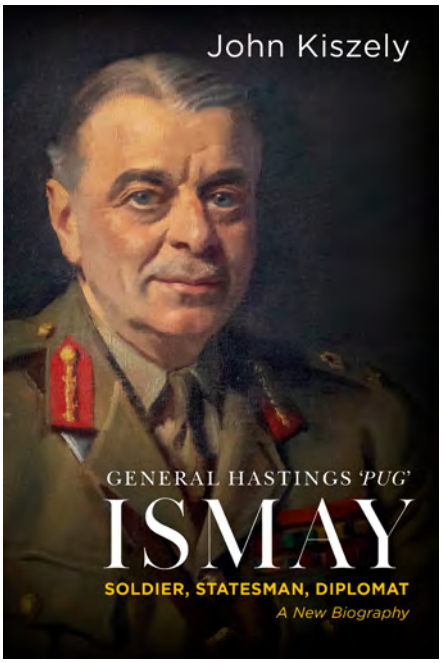
One of the challenges of language is when the same word or term is used but the meaning is different. To a European or American ear, a British person saying 'that's a brave decision' or 'I'll bear it in mind' may mean simply that 'they think I'm courageous' and 'they'll probably complete that task'. But of course, the British person is likely to mean 'you're totally insane' and 'I've forgotten it already'. Equally, when the US Army hears the term 'Armoured Brigade Combat Team' they might imagine that the UK military formation has the same structure and range of capabilities as an American 'Armoured Brigade Combat Team'.

This confusing and potentially dangerous distinction is at the heart of Dima Adamsky's new book, *The Russian Way of Deterrence*. The author draws out that Russians have a fundamentally different view of the practice of deterrence and explains (in varying degrees of depth) how and why they do so. Whilst coercion, alongside diplomacy and war, are universal tools of statecraft and geopolitical influence, Adamsky's point is they are not practiced universally. And this consideration is even more important to consider, ironically, when trying to deter another state. Having previously written *Russian Nuclear Orthodoxy* (2019) and *The Culture of Military Innovation* (2010), Adamsky, a Professor at the Reichman University in Israel, is clearly a serious academic – as demonstrated by the traditionally effusive quotes on the back of his latest book being, unusually, from genuine Russia scholars rather than well-known former politicians or Generals.

In this readably concise title, Adamsky starts by considering three interconnected factors (history, culture and concepts) that influence how Russia sees deterrence. This can be as simple as the etymology of the word deterrence; in English deterrence comes from the root words 'terror' or 'fear'. By contrast, in Russian, sderzhivanie, means an action that holds back or restrains. Adamsky briefly but systematically also considers the impact of cultural practices such as reflexive control, military cunning and suffering (also a broader Russian cultural influence). He then explores, as a result of these factors, how Russia does deterrence using conventional forces, nuclear weapons and information in ways that are far more interconnected than within the Western doctrinal or conceptual canon. He points out that for Russia deterrence, building on the linguistic basis of the word, is an act (including the limited use of force) rather than a rhetorical threat and is practiced prior to and during all phases of war. It is a concept of employment that differs to the more familiar 'escalation ladder' of western military and diplomatic thought and is characterised in the West, although not in Russia, as 'escalate to de-escalate'. Adamsky's section on the overall implications for NATO security policy illustrates some useful points for practitioners. In the author's view, the Kremlin prior to 2022 took for granted the West's ability to decipher its coercive signalling although notes the task was made more difficult because much of Russia's coercive behaviour has its basis in internal, departmental competition for resources.

Adamsky also makes an important and often overlooked point at the beginning of the book. National capitals traditionally consider 'how do we deter [insert country]?'. Adamsky insists the question must be more specific and a better one to pose would be 'how do we deter [insert country] from conducting catastrophic attacks (and accept the fact of annoying but non-existential threats)?'. He concludes: "Examining Russian conduct through what some Western experts see as the 'universal logic of deterrence'... is at best unhelpful. At worst it could result in mirror imaging, intelligence misdiagnosis and misperceptions leading to security dilemmas and inadvertent escalations."

Should you be looking for any further reason to read this book, the final chapter lists dozens of Master's and PhD research questions, all of which set the mind racing and deserve to be considered and answered by future students – hopefully in as rigorous and accessible way as Adamsky does in *The Russian Way of Deterrence*.



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TITLE
General Hastings 'Pug' Ismay – Soldier, Statesman, Diplomat: A New Biography

AUTHOR
John Kiszely

REVIEWER
Professor Andrew Stewart,
Head of Conflict Research, CHACR

'AN INTIMATE EYEWITNESS'

Who was Hastings 'Pug' Ismay? General John Kiszely's fascinating book aims to put some much needed light on one of the most important military politicians of the 20th century, a key individual long known and admired by this reviewer but who – to use the author's own words – "is almost always portrayed as a background figure – part of the furniture – and in documentaries and films sometimes gets a walk-on part but almost never a speaking one". This exceptionally well written and researched biography does much to hopefully expose his remarkable career to a wider audience and correct the lack of visibility Ismay may previously have received, albeit a level of obscurity both during his life and since that was very much of his own making.

Ismay did produce an autobiography, published five years before his death in December 1965, only ten months after the passing of the figure with whom he is most closely associated, Winston Churchill. Almost without exception, this was dismissed for not making any great contribution to popular knowledge, a criticism not about how it was written but because of the discretion it demonstrated. As one reviewer put it, throughout Ismay remained "predictably and infuriatingly modest". *The Times Literary Supplement* went further lamenting an absence "of lurid revelations and salon gossip". As the anonymous writer concluded: "Least said, soonest mended, must be the motto of one whose life is spent in averting or smoothing out rows. But it is not a quality which makes for informative history." The result was an account that did not contribute a great deal to what was known about how the war was fought and won.

Readers in 1960 were still interested in the Second World War, a war which still held many secrets, and there was perhaps reasonable ground to hope that Ismay had much to offer. His role, or rather four interlocking roles, from 1940 to its conclusion had been to act as both a bridge between the civilian and military strands of the war effort and an anchor. For those interested in understanding the complexity of civil-military relations, and how this often-complicated connection works, they could do worse than using him as a case study. The author makes this same point about the focus of his study and the approach he adopted to "the effective translation of government policy into action in time of war or crisis".

Perhaps most important amongst the multiple hats Ismay wore was that of chief staff officer to the Minister of Defence, a ministerial position Churchill had created for himself and to which the military Chiefs of Staff reported directly. It was new and critically important to how this particular war would be conducted but it was an often tempestuous workplace environment and it was not an easy job for Ismay. There are 19 index references to 'Chiefs of Staff Committee – disputes with Churchill' and the book offers considerable evidence to confirm just how hard he had to work to keep the machine ticking. One of his obituaries referred to "an almost uncanny skill for smoothing over difficulties and averting friction". Lieutenant General Sir Ian Jacob – another member of the inner circle which surrounded the wartime prime minister – went further, writing to *The Times* that "Churchill's unorthodox and often dangerous impulses were cushioned, and his tremendous energy and fertility of ideas found a channel though which they could usefully flow to vitalise the whole national effort" (unimaginable criticism of the wartime prime minister had he still been alive). Elsewhere, Ismay's close friend wrote that he "took the knocks from above and below, and worked day and night to ensure that the often exasperating vagaries of the Prime Minister and the sometimes mulish obstinacy of the Chiefs of Staff did not break up the association".

Nonetheless, as this new examination confirms, Ismay had considerable respect for his principal. He referred to the decision made by the recently appointed prime minister in May 1940 not to commit the Royal Air Force's final fighter aircraft to the Battle for France but to preserve what was left for the battle still to come. In many respects it could be said that Churchill's decision to retain Pug as his senior staff officer – his predecessor Neville Chamberlain had also played a part in forming the organisational structure – was his most far-sighted decision. He kept close to him an individual with a uniquely suited temperament demanded by this existential moment in British history and with whom he could work in times of the greatest imaginable stress. Ismay, of course, was far too modest to make such a claim. In a brief but sincere foreword to the autobiography, Churchill pointed to comments made about Ismay in the first volume of what he termed as his memoir of the Second World War. They 'became hand in glove and much more' and there is no more accurate statement to describe the relationship.

This is not to say it was a relationship based on unquestioned adulation. The author skilfully provides evidence of Ismay's own thinking on the challenge of managing an individual who he once described as "brave as a lion, tender as a woman, simple as a child". One example notes Ismay's response in 1940 to the news that Churchill had been appointed as the chair of the largely ineffectual Military Coordination Committee. In his autobiography he recorded that the meetings became "more frequent, more controversial and... more acrimonious"; writing to John Colville, soon to become Churchill's assistant private secretary, he confided that the chairman's "verbosity and restlessness made unnecessary work, prevented real planning and caused friction".

Three quarters of Ismay's autobiography was devoted to the Second World War, here it is seven of the 16 chapters and an epilogue, confirmation perhaps that this was the career experience that defined his place in history. There is an often detailed account of the role he played as the war whirled around him, sat as he was in a front-row seat and an eyewitness to all of the key decisions of the war. Although much will be familiar to those who have studied the conflict, and will likely have at least some familiarity with Ismay and his work, the story is told with real expertise. There are also some absorbing insights and perspectives, the appendix discussion of the 1942 Dieppe raid and the degree to which Ismay must share culpability with others was genuinely intriguing.

There is, of course, a much more expansive story to enjoy. With the recent 75th anniversary of its establishment, the other role for which Ismay might be known is his (reluctant) appointment as the first NATO Secretary General. When he stood down after five years, *The Times* dedicated an editorial column to reflect upon his achievements in which it highlighted "he had perfected the art of keeping wheels turning, getting men off their high horses, and making sure that everything that was really essential passed through the machine". His wartime experience had left him ideally prepared for anything that followed. There are also the two chapters on India and his post-war role as Mountbatten's chief of staff, again an intimate eyewitness to the last Viceroy and another key passage in British history. Other highlights are the discussion about his long interwar involvement with the Committee of Imperial Defence, which acted as both a coordinating and also anticipatory body but is even more obscure than Ismay in terms of the important role it played prior to 1939 and

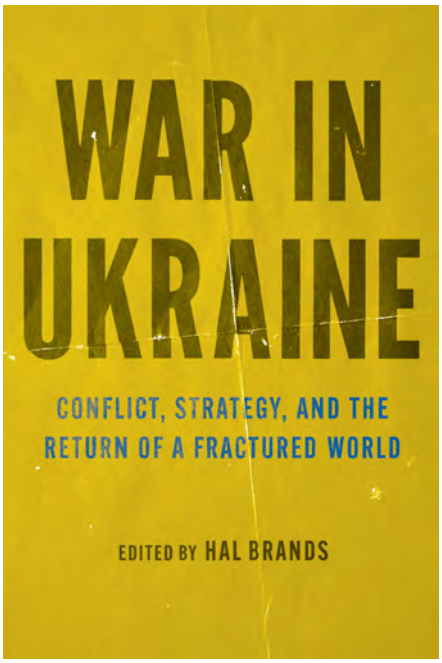
NATO, (CC BY-NC-ND 2.0)

the outbreak of war. It was an enticing role for Ismay persuading him to abandon any hopes for senior field command although it did not hamper his professional advancement, including an unusual progression from colonel to major general. In addition to the discussion of his early soldiering in India, the chapter on the six years he spent in Somaliland highlights his military skills and his resolve and personal bravery and offers early evidence of some of the reason he was so well suited for what followed. The eight page epilogue is particularly valuable and insightful with its discussion of Ismay's characteristics, personality and traits.

It might also be noted the degree to which this biography provides an excellent example of what might be termed 'forensic reconstruction'. A real challenge is the autobiography and its limitations and the author has sought to overcome this looking far and wide to fill the gaps. In addition to an expansive review of secondary sources – including the two previously published biographies, the most recent of which dates only from last year – he has spent much time examining a wide range of British and some American sources along with material from the NATO archive in Belgium. This he describes as "much painstaking, detailed research", a curse or a joy for an historian depending on the individual and their empirical curiosity. Interestingly, Kiszely was further hampered by Lord Ismay's personal papers, held in the Liddell Hart Centre for Military Archives at King's College London, which appear at first glance extensive but the author is correct in the cautionary note he provides. The result is a detailed and vivid account which appears to provide a genuinely comprehensive reflection on an important life. Readers will form their own judgement but the author's thesis that "in all his senior appointments Ismay had an influence out of proportion to the authority invested in the appointment" is argued with great conviction in a fascinating book about a fascinating individual.

A fitting conclusion – presented in the book's introduction – is the anecdote about the advice given by Harold Macmillan to his successor Margaret Thatcher in April 1982. With war now declared against Argentina, the 'Iron Lady' was told she would need a Pug Ismay but the subsequent discussion made clear she had never previously heard of him despite being a professed Churchillian. There is no reason to believe this advice will be any different should Britain find itself drawn into another major conflict. It is to be hoped there is someone out there who can fill the role.

WAR OF THE WORDS



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TITLES
War in Ukraine: Conflict, Strategy, and the Return of a Fractured World

EDITOR
Hal Brands

REVIEWER
Professor Andrew Stewart, Head of Conflict Research, CHACR

Prior to 2022 the literature examining conflict in Ukraine was relatively small, specialised and generally academic in tone. In the two years since, the situation has almost entirely reversed in so much as publishers – both academic and trade – compete with one another to produce books tracing the origins and subsequent drivers for what has become Europe's most deadly conflict since 1945. As one of the world's leading professors of security studies recently commented privately, they have more than 20 books on the subject currently on their desk and this number seems to grow every week.

Amongst this glut, one of the very best – *War in Ukraine: Conflict, strategy and the return of a fractured world* – is based on a recent conference and has been published in quick time and made freely available for download. Its editor is Hal Brands – a distinguished professor at the internationally renowned John Hopkins' School of Advanced International Studies and leading voice on this conflict (he has described Ukraine as a global proxy war and the first of what he terms "Cold War II") – who has also written extensively on China and strategy (he is also the editor of the 2023 updated version of Makers of Modern Strategy). As he notes in his excellent opening chapter, it is intended as a provisional history, as "[c]oming to grips with a war in progress is like shooting at a moving target". Such conferences and publications, nonetheless, are an 'essential' activity to support the work of policy-makers and analysts and this certainly provides an absolutely critical addition to any reading on this conflict.

Every one of the 21 contributors and 17 chapters offers something to the reader, whether it be to confirm or challenge how the war is understood. Organised into three broad themes – 'Origins and Overviews', 'The Conflict' and 'Global Dimensions and Implications' – there is a smooth flow from how it began to how it will end, with some interesting diversions along the way. These include discussions on planning, nuclear deterrence, resilience and adaptation, the impact of economic sanctions and a lot of examination of what drives Vladimir Putin. There is even a chapter on what the war means for the European Union; Mark Leonard's assessment on the latter is that the potential exists for a much strengthened body to materialise which can defend itself, better use its economic power "and emerge as an equal partner to the United States". In his chapter, Michael Kofman, an American military analyst born in Cold War Ukraine, provides a 22-page synthesis of the war up to February of this year and the eventual capture by Russia of the city of Avdiivka. In his concluding comments he notes that the conflict has actually "validated" expectations as, once the Russian 'coup de main' had failed, "the long war that followed hewed closely to historical patterns of large-scale protracted wars" as both sides have struggled with combining mass and firepower. He is doubtful on Western military support, "tactically significant, and even at times operationally impactful, but strategically indecisive". Advantages have been fleeting and even drones, while facilitating new tactics and strike options, did not lead to breakthroughs. In his assessment, there is considerable interest in weighing intangibles, such as morale, against the tangibles. Incisive analysis throughout provides an exemplar of what is to be found in this deeply fascinating and valuable book.

Viktoriya Fedorchak is a member of the war studies department at the Swedish Defense University and her recent contribution to the growing canon of work highlights how right Brands is when he notes that "writing history in real time" is challenging. *The Russia-Ukraine War* is not intended as a history but offers a highly readable examination of the conflict, well researched with an extensive secondary source foundation and replete with important insights. Having heard the author speak at the recent Helsinki 'Russia Seminar' where she delivered an excellent presentation, she is highly informed and, as a Ukrainian, inevitably passionate and animated about a subject that must be highly personal and painful. In a room where there were more than a number of newly emerged experts on the conflict, her voice was authentic and important. In terms of the book, it has great merits and would make a useful course reader for any study of contemporary conflict in which Ukraine is a case study (including land students who can focus on the relevant domain chapter). The author has two published books examining airpower and the air domain chapter, entirely understandably, reads particularly well.

For anyone who is following the conflict with any degree of interest, there is not much in here that they will not already have encountered elsewhere in their intellectual reflection on

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TITLES
The Russia-Ukraine War: Towards Resilient Fighting Power

AUTHOR
Viktoriya Fedorchak

REVIEWER
Professor Andrew Stewart,
Head of Conflict Research, CHACR

the fighting in Ukraine. As the introduction explains, the focus was the first year of the war with the manuscript completed last summer. For what is surely the most closely scrutinised conflict in history, and with so many books sat on a desk jostling for space in an information saturated world, the question has to be asked if the reader can gain a similar or better level of knowledge from regular monitoring and review of the many dedicated open-source intelligence offerings (albeit recognising some sit behind paywalls). From the *Institute for the Study of War* to *War on the Rocks* via excellent Substacks such as *Comment is Freed* and *Futura Doctrina* – with the best of these written by senior academics and practitioners – there is no shortage of highly informed discussion and analysis about global conflict and (in)security to intellectually dissect.

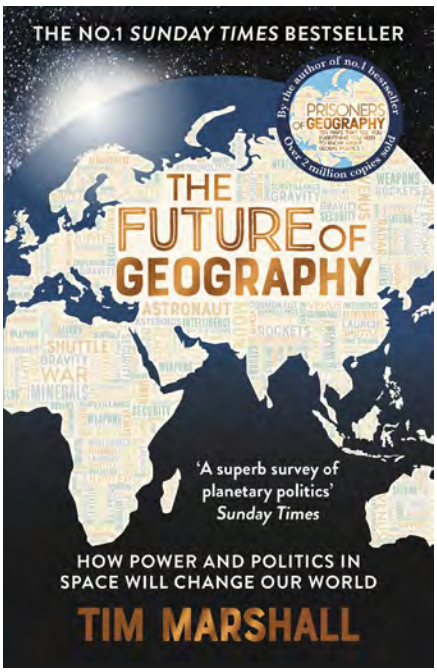
It is the big idea underpinning the book that is most valuable and the final chapter, Modern warfare and resilient fighting power, was fascinating and could usefully be studied closely. Not only does this discuss resilience but also innovation, the role of technology and even organisational and structural integration, all of which are valuable research themes for the British Army and others. The subject of a recent *CHACR Commentary*, the experience of Ukraine has demonstrated that "the preparation of a society for total defence requires clarity of objectives, and realistic training and consequent realisation of what war is about, and that it requires defence of the homeland". The only question that might be raised, and one acknowledged by the author, is that, with the short period examined, can some of the lessons learnt which are highlighted really be accepted as such or are they still more lessons 'observed' or 'identified'?

As Professor Sir Lawrence Freedman warns us: "Bad strategy can take many forms. It normally includes the underestimation of an opponent. It may involve over-reliance on some hunch about how others will act, or not thinking through the possible consequences of a course of action, or failing to work out how a good idea can best be implemented. Sometimes the failure is the result not of bad strategy but of unrealistic objectives – what is attempted can never be achieved despite the conviction that there must be a way. The strategist's conceit is to assume that the objective can be reached if available resources are applied with intelligence, imagination, and a steely will, as if every problem has a solution." Therein, perhaps, lies the problem with this war and the other 'hot', 'tepid' and 'cold' conflicts in the Middle East and Indo-Pacific. There is no acceptable outcome for those involved beyond total victory, with its often ambiguous and unachievable constituent elements. As a result, irresistible force is condemned to battle with immovable objects with only the prospect of exhaustion and collapse to force an ending. And the growing danger is the no longer far-fetched possibility of a fiery finale which affects us all.

MUST WATCH...

■ *"The idea of an elaborate, Star Trek-esque hologram form of training is pretty pie in the sky. Do I buy into the romantic vision of what that could be? Yes – it's a cool idea but we don't know what the metaverse is and we certainly don't know what the military metaverse is going to look like. It's a long way away."* **– Sam Vine – Professor of Psychology at the University of Exeter and Chief Scientific Officer at Cineon – talks to *The British Army Review* about the performance power-up technology can afford those in the Armed Forces, 'marginal losses' and the economics of Extended Reality. Scan the QR code below left to watch.**

■ *"The world is entering its most dangerous 25-year period for quite a long time. The way in which Ukrainians have had to defend themselves is just something that the Poles, the Lats, the Estonians, the Finns and, critically, probably the Germans will have to show their willingness to do."* **– Peter Apps, Reuters' global defence commentator and the author of *Deterring Armageddon: A Biography of NATO*, shares his assessment of the Alliance's 75-year history and its next chapter. Scan the QR code right to watch his exclusive interview with *The British Army Review*.**



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TITLE
The Future of Geography: How Power and Politics in Space Will Change our World

AUTHOR
Tim Marshall

REVIEWER
Ben Tomlinson,
Visiting Fellow, CHACR

WAR'S FINAL FRONTIER?

There are few writers as familiar and relevant to the British Army as Tim Marshall. His 2015 *Prisoners of Geography* has formed the basis of course reading lists across Defence and provided a generation of Westbury-bound officer candidates with the geopolitical insights to realise their ambitions. Since then, Marshall's works, which also include *Worth Dying For* (2016), *Divided* (2018), and *The Power of Geography* (2021), have been a regular theme of millions of conference calls.

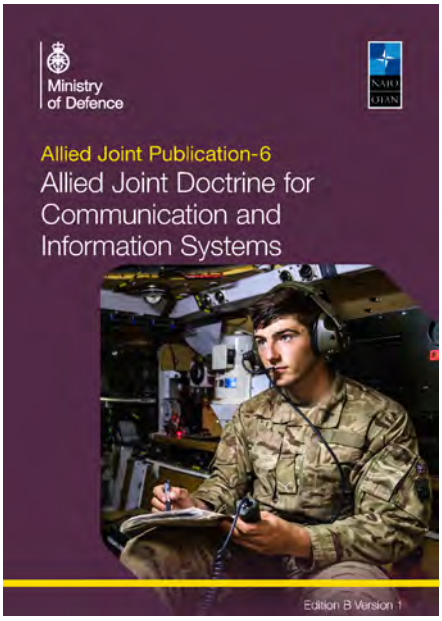
The author's most recent offering, *The Future of Geography: How Power and Politics in Space Will Change Our World*, follows a well-tested and much lauded formula for success, but focuses its insights on the risks and opportunities of an "era of Astropolitics". As Marshall reflects, "each time humanity has ventured into a new domain it has brought war with it" and there is no reason to doubt the opportunities presented by space.

Ultimately, the picture Marshall paints is not a cheery one. The emergence of great power competition has heralded another space race, in which we are presently engaged – apparently. What is most concerning to Marshall, however, is that unlike the last time round, the great powers are now able to inflict catastrophic damage on one another in, or from, space. This capability therefore presents several issues. If space is the global commons we identified it as in the late 20th Century, then what rights do nations have to establish permanent military capabilities within that sphere? What rights do adversaries have to attack them? And what rights do we have to defend them? As Marshall expands; in 2004, during the Iraq War: "68% of US munitions fired were guided by satellites, of which 80% were commercial. If Iraq had possessed the capability, would it have been within its rights to fire at those satellites?"

The hypotheticals posed within *The Future of Geography* are only exacerbated by the emergence of space's commercial sector. As an industry, space is predicted to explode in popularity. Having generated $450 billion in 2022, it is expected to create revenues of more than $1 trillion by 2040. Commercial opportunities such as space tourism or mining for rare and valuable materials all present moral dilemmas upon which any state actor could object. In turn, many of these friction points remain ungoverned, and what space laws and treaties currently exist "are horribly out of date and too vague for current conditions".

Overall, *The Future of Geography* is a worthy successor to Marshall's finest offerings. The historical context, legal dilemmas and geopolitical implications of space exploration are beautifully summarised for even the most casual reader, and neatly packaged for regurgitation by every officer commanding in the Army. Definitely worth a read.

DOCTRINE



The Development, Concepts and Doctrine Centre has published one new joint doctrine publication since March 2024. Doctrine publications serve to guide military operations and inform professional military education as British Army regular and reserve personnel progress through their careers.

Allied Joint Publication 6, *Allied Joint Doctrine for Communication and Information Systems (Edition B, Version 1)* – published with UK national elements – provides the overarching doctrinal guidance to integrate communication and information systems into Allied joint operations across the range of Allied operations and missions. It describes the characteristics, overall structure, roles and responsibilities, command and control, and security relating to communication and information systems. *Allied Joint Publication 6* is intended primarily as guidance for joint NATO commanders and staffs. However, the doctrine is instructive to, and provides a useful framework for, operations conducted by a coalition of mission participants. It also provides a reference for civilian mission participants.NATO nation units. Therefore, references to the commander joint force command throughout this publication would apply equally to the commander joint task force or commander multinational force in those situations.

Doctrine publications and supporting documents can be found at the following links:
- Defnet – Development, Concepts and Doctrine Centre (sharepoint.com)

- DCDC App on the Defence Gateway Development, Concepts and Doctrine Centre (mod.uk)
- GOV.UK – Development, Concepts and Doctrine Centre (gov.uk)
- YouTube – Publications may be supported by introductory videos and audio books which can be accessed from the Development, Concepts and Doctrine Centre YouTube channel.

The Land Warfare Centre Warfare Branch recently published the following Field Manuals and Doctrine note.

Army Field Manual: Cold Weather Operations

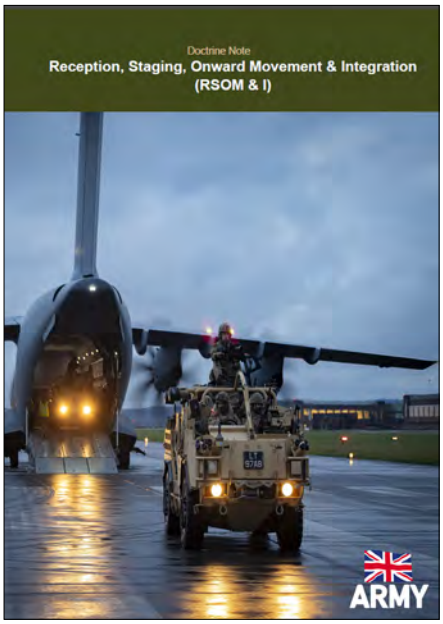
A cold weather environment is defined as a region where the impact of cold weather and temperatures have a significant effect on military operations for one month or more of each year. In these regions, cold weather phenomena and terrain characteristics will have a significant impact on operations, predominantly on the physical and moral components of fighting power. Regardless of technological developments, our soldiers are and will always be central to fighting and winning in a cold weather environment. Individual competence and effective leadership are imperative in cold weather environments. But we must also understand how to conduct expert combined arms manoeuvre in an environment where weather phenomena and terrain characteristics can change rapidly. As military forces cannot change or influence the weather or terrain, adapting tactics, techniques and procedures in conjunction with training and education to the requirements of this specific environment will be crucial for success.

Army Field Manual: Desert Operations

The desert landscape – vast, open terrain – lends itself to armoured manoeuvre warfare. Mobility is the crux of a successful military operation in the desert environment, where speed, flexibility and surprise will offer more advantage than the holding of territory. But movement is constrained by logistics, which itself is hampered by the terrain, the vast distances and vulnerability to the increasing transparency of the battlefield. To survive, to fight and to win, the limitations imposed by the climate and the terrain must be understood and must be provided for. Equipment and tactics need to be adapted to account for the rugged landscape where the visibility may reduce from the visible horizon to a few metres in minutes.

Doctrine Note 24/02 Reception, Staging, Onward Movement and Integration (RSOM & I)

RSOM/I is the process by which any expeditionary force is cohered in a given theatre so as to bring their capability to bear – one might even describe it as the preliminary movement ahead of operations. Whilst enabled by combat service support forces, it remains a key aspect to plan against for any commander operating away from their home location. Just as theatres and areas of operation differ, so to do the methods and means by which RSOM/I is delivered. This flexibility must be borne in mind, and can be used to the advantage of commanders. How RSOM/I is delivered matters just as much as the conduct of the operation as it provides a bedrock for further and subsequent actions.



MUST READ...

"In force development circles in the UK and, widely, elsewhere, it is often argued that professional competence, both in generals and in their staffs, will be enhanced by the obvious benefits of well-designed artificial intelligence (AI). Perhaps a general's intuition alone need no longer be the deciding factor? The delivery of faster, better filtered and sorted, relevant data can change the OODA [Observe, Orient, Decide and Act]-loop turning-circles very much in favour of those who hold the AI upper hand. Thus, human 'coup d'oeil' can be hugely enhanced by machine 'coup d'AI'. But, in the discussion of the relative merits of AI and the human factors involved in military command and decision making, a distinction needs to be drawn concerning the differences between the roles and realities of information and intelligence, instinct and intuition."

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