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STRATEGIC DEFENCE REVIEW 2025:

THE ARMY'S 'ROAD TO DAMASCUS'

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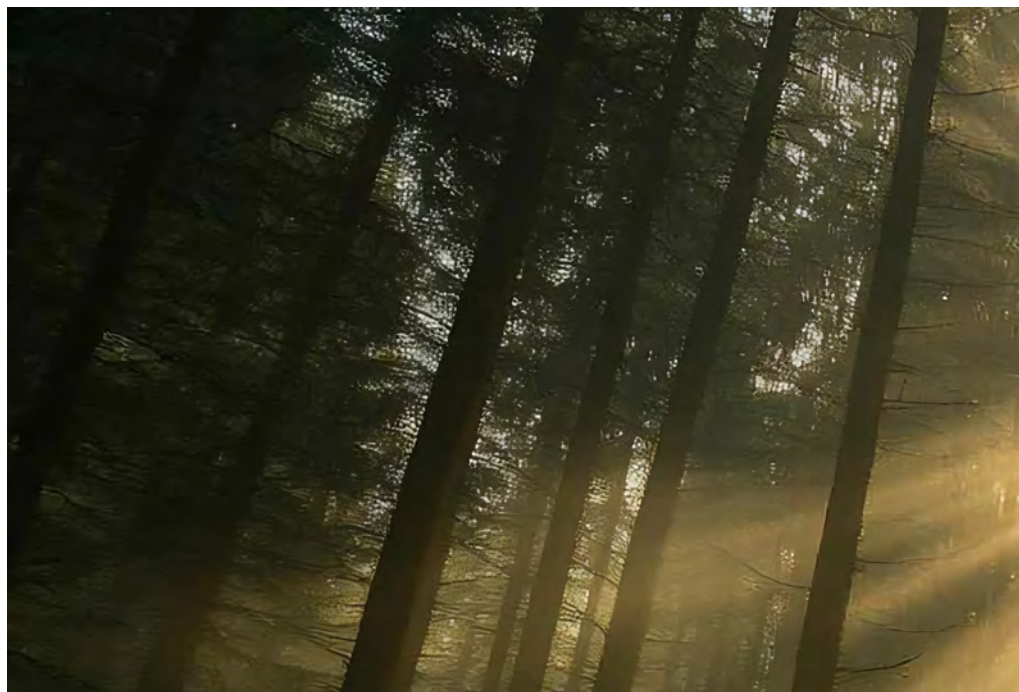
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Newly released publications

ARMY HAS 'A CLEAR NORTH STAR' TO GUIDE ITS TRANSFORMATION

FOR the British Army, the Strategic Defence Review 25 signals genuine change to past defence policy and is a significant opportunity. Since 1989, six successive Defence Reviews have cut and reduced the British Army, this review marks a change to that paradigm. It marks a shift from those that went before that were tethered to a trajectory in defence policy characterised by a period of 'peace dividend' following the Cold War.

Through the policy set out in the Strategic Defence Review, that trajectory's course has been shifted to a focus on: preparedness and resolve to fight war at scale and over time; stronger ties with society; and the rebuilding of a national arsenal. Our Army proposition to the review panel was accepted in full: from our Strategic Reserve Corps to our Standing Joint Command; neatly aligning with this new focus. This Review enables us to fight and win battles

"The [Strategic Defence] Review challenges us to go further, to become ten times more lethal and accelerate the development of our recce-strike approach. We can do this because of the quality of our people, and the urgency of our task."

on and from the land in the way we know we need to, and that is how we protect our people at home.

The Army is well on the way to doubling fighting power by 2027, with tangible examples in the Land Training System and Project Asgard. The Review challenges us to go further, to become ten times more

lethal and accelerate the development of our recce-strike approach. We can do this because of the quality of our people, and the urgency of our task. The Review recognises the imperative to recapitalise the Army's core platforms out of necessity and as a foundation for the integration of technological interventions that will enable us to fight and operate differently.

With the commitments outlined in the Strategic Defence Review, we are building evermore lethal land forces, capable of operating over ever greater distances and in ways that will make fighting us such an unfair proposition that no one in their right mind would do so. It validates and brings consistency to our operational, force and organisational design, delivering for NATO and the Integrated Force. We are changing how we fight through 'techcraft' – the fusion of fieldcraft and technology, harnessing the ingenuity of

our people with the innovation of industry in mission partnered teams.

Notably, the Review records that our numbers need to grow, with an increase to 76,000 Regulars from 2030 alongside increases to the Reserve and cadets. Our energy and focus now is on making it easier and faster to join; whilst giving our serving people greater choice and opportunity, to realise this growth.

This latest edition of *The British Army Review* sets out the detail and implications of the recently published Strategic Defence Review and it's closely linked Defence Reform. The



Review marks a step change in the national approach to security and defence. Although, this will not be a linear path or one that happens overnight, the complexity and relevance of the real world will inevitably get in the way. Challenges will not abate; they will endure and morph. However, a clear North Star for the transformation in the way we are going to fight and develop the means to do that are set out for us in this Review.

Much is already underway; we are rebuilding the Army that NATO wants, that the nation needs and our soldiers deserve. – **General Sir Roly Walker, Chief of the General Staff**

FROM THE EDITOR

RESUSCITATE ARMY'S AILING OFFER

Even the most fleeting of flick throughs of the Strategic Defence Review should be enough to satisfy concerned readers that the smelling salts of Russian expansionism – characterised by Putin's unflinching tolerance of equipment and human life-consuming attritional warfare – and a US seemingly less willing to stand shoulder-to-shoulder with its European and NATO allies, have hit the right nostrils.

As the Chief of the General Staff attests in his foreword, a tangible change in trajectory – informed by carefully considered input from the Service's leadership – has been set and the UK has been awoken from a 30-plus year Defence spending slumber that has inflicted significant 'bed sores' on the Army.

Remedial action to reset and revitalise the ranks is underway and, vitally, money to fund enhanced armour, long-range weapons and land drone swarms – in a bid to make the British Army ten times more lethal than it is today – is incoming.

New capabilities and a tighter embrace of tech alone will not, however, be enough to deliver the British Army that "NATO wants" and the "nation needs" if the third aspiration identified by General Sir Roly Walker – an Army "our soldiers deserve" – is not met. The trilogy of targets presented by the Chief of the General Staff in this issue of *The British Army Review* are inherently linked and consequently crucial to the rebuild has to be a steadfast acknowledgment that people are the critical component of Defence capability and that – as underlined by a former Intelligence Corps officer on the pages that follow – there is an undeniable quality in quantity.

The Review's aim to get more pairs of feet in combat boots and increase the number of full-time troops to at least 76,000 is therefore most welcome (as was the Government's earlier announcement that the new Armed Forces Recruitment Service, launching in 2027, will streamline and expedite the process for prospective recruits wishing to serve). But as important as getting new faces through barrack room doors will be the battle to retain them and keep those of you already in receipt of the King's shilling content and engaged.

In a competitive employment market, doing so will not be easy or a short-term conquest (not least because, as Major General (Retd) Dr Andrew Sharpe points out (pages 20-23), the Review "quietly asks for £6 billion of

"There is little point in investing £1.5 billion in an 'always on' pipeline for munitions if you don't have enough fingers on triggers."



savings, now, before any new money goes in in a couple of years' time", which means that "soldiers can expect a couple of years of becoming even more 'hollow', before they start to feel any relief or revitalisation".

Nevertheless, reversing the perceived 'erosion of the Army offer' and making it fit and appealing for the future workforce should be a priority. The provision of cutting-edge kit will be a key component of that (being nicknamed *The Borrowers* or *Flintstones* will be even less desirable than it was during the Gulf Wars should British soldiers find themselves on operations without any US troops to borrow from), but is one of only a myriad areas in need of investment. Factors such as the quality of roofs over heads, the food fuelling the stomachs on which the Army marches, the welfare support afforded to families, and career satisfaction have always mattered and can't be neglected now or tomorrow in favour of military material. There is, after all, little point in investing £1.5 billion in an 'always on' pipeline for munitions if you don't have enough fingers on triggers.

This, thankfully, is not news to most of the decision makers at Defence's top table (as evidenced by the additional £1.5 billion committed to modernising military accommodation in the Review), nor indeed by those in positions of command, but every effort must be made to ensure that voices championing the people on which Defence success and national security depend are not lost amid the considerable buzz surrounding drones. The Chief of the General Staff gets it; here's hoping those holding the Treasury's purse strings do too. – **Andrew Simms**

SDR: SO WHAT FOR THE ARMY?

AUTHOR

Colonel Rupert Kitching is Assistant Head Army Strategy London and has cohered the Army's inputs into the Strategic Defence Review over the last 18 months.



"By 2035 UK Defence will be a leading tech-enabled Defence power, with an Integrated Force that deters, fights and wins through constant innovation at wartime pace."

THE recently published Strategic Defence Review (SDR) sets out a new vision for UK Defence. Its headline recommendations and announcements indicate a landmark shift in our deterrence and defence: through a move to warfighting readiness; as an engine for growth; putting 'NATO first'; harnessing UK innovation driven by the lessons from Ukraine; and by adopting a whole-of-society approach. This article will situate the SDR publication and its next steps, then identify what the SDR means for the British Army and our people in terms of national resilience and warfighting, organisation and structures, and force and capability development.

The SDR was formally announced and published, in full, on the 2nd June 2025 with His Majesty's Government endorsing the report's vision and accepting all 62 of its recommendations; the SDR is now accepted Defence policy. The SDR is ambitious and far-reaching, setting a clear vision and aiming mark for Defence but – as widely noted in the media – was light on timelines, defined allocation of resources and specific funding commitments.

Delivering the SDR – the Defence Investment Plan. Accordingly, the SDR's publication

provides the first crucial bound towards a Defence Investment Plan. This programming process will 'translate the vision, framework and policy recommendations set out in the SDR into [prioritised capability choices and] an affordable, long-term programme for Defence'. The Defence Investment Plan, which will be published in October 2025, is now the critical path to securing investment and aligning resources against the SDR's recommendations and priorities. The plan will be overseen and approved by the Defence Oversight Board, which is chaired by the Prime Minister. There are a number of variables that will affect the Defence Investment Plan and its financial content including in-year financial planning; an endorsed trajectory to three per cent gross domestic product [GDP] (recognised as essential by the Defence Oversight Board); any early investment necessary to resource any Ukraine ceasefire requirements; and the Prime Minister's recent announcement of a further increase to five per cent GDP for Defence and security (3.5 per cent for core Defence).

The Army proposition. Importantly for the land domain, the Army's proposals and recommendations into the SDR were accepted almost in full, from our Strategic Reserve Corps to our Standing Joint Command. The SDR's land chapter and wider recommendations for Defence are entirely consistent with the Army's proposition, the Chief of the General Staff's vision/intent and his growth through

transformation narrative – indeed the SDR challenges us to go even further and faster.

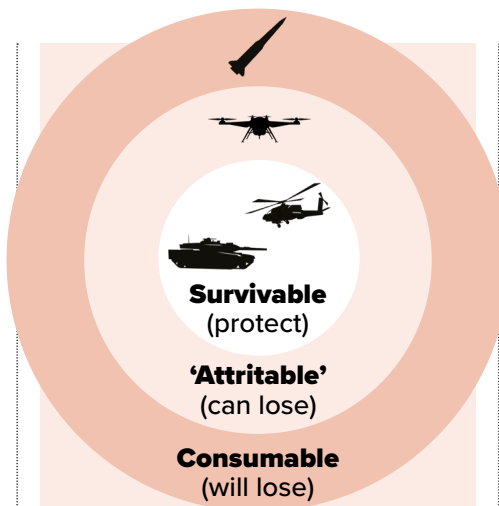
“But it (the Army) must be bolder. It can deliver a ten-fold increase in lethality by harnessing precision firepower, surveillance technology, autonomy, digital connectivity, and data.”

The SDR has been accepted as formal Defence policy and effectively endorses the Army’s modernisation and transformation agenda. It further validates the Army’s firmware – the Land Operating Concept, our operational design and our agile and iterative approach to force and organisational design; in doing so it provides valuable coherence and consistency to our strategic approach and trajectory. The Army has already proactively moved out on delivering against this agenda as directed in the Army Command Plan 25. Similarly, much of the Army’s approach has been communicated already – within routine internal Army communications, through successive RUSI Land Warfare Conferences and previous editions of *The British Army Review*, which have unpacked many of the component parts of the Army’s transformation.

MOVE TO WARFIGHTING READINESS

“10x more lethal British Army: armoured capability, artificial intelligence, software, long-range weapons, and land drone swarms – and aim to increase full-time troops to at least 76,000 into the next Parliament.”

Doubling and tripling fighting power. At the RUSI Land Warfare Conference in July 2024 the Chief of the General Staff laid out his vision and ambition for the British Army – to urgently pull the future into the present – “fielding fifth generation land forces that set the joint force up for the unfair fight infused with an ambition to double fighting power by 2027 and triple it by 2030”. This ambition is guided by the Land Operating Concept and the application of the lessons learned from our over-the-shoulder support to Ukraine and wider conflicts. It reflects a fundamental transformation in how the Army prepares for and conducts high-intensity warfighting at scale and for extended duration – reimagining how we fight. It is enabled by the acceleration of our modernisation programme in combination with the integration of disruptive technology and transformative interventions. Central to this shift, as signalled in the Land Operating Concept, will be the transition to a three-layered fighting system [see centre column] which places our conventional survivable platforms at its core, supported by new layers of cheaper, attritable and consumable technologies to enable a more lethal and productive Army.



THREE RINGS OF LETHALITY

Survivable (20%). At the centre of the three-layered fighting system is our core suite of survivable systems – crewed, armoured, highly sophisticated platforms (Challenger 3, Ajax, Boxer, AH-64E Apache etc). These will remain at the heart of our fighting system because, ultimately, they are essential to seizing, holding or retaking terrain in close combat. The long-awaited, planned recapitalisation of these major fighting platforms provides the essential foundation upon which the Army will integrate transformative technologies.

Attritable (40%). Around this core we layer a series of attritable platforms. These are mid-cost, mid-sophistication, uncrewed, ground, air or surface systems which multiply the number of sensors and munitions. These are the new source of combat mass; you don’t want to lose them, but it’s not a tragedy if you do because they are uncrewed.

Consumable (40%). Around them is a third layer of consumable systems – cheap, single-use, disposable platforms, like one-way effectors. When they are gone, they are gone.

This is not about reducing the numbers of crewed platforms, it is about making each one (or pair) of those crewed platforms exponentially more lethal, survivable and sustainable. Collectively, this three-ring source of lethality generates new scales of precision and mass allowing us to operate and identify and strike targets over far greater ranges, multiplying effect and lethality.



Digital targeting web. Critical to this endeavour is the SDR’s focus on digitalising the force, prioritising autonomy, providing drones, artificial intelligence and thousands of new long-range weapons including the £1 billion announcement to rapidly develop a Digital Targeting Enterprise. This digital ‘kill-web’ will link every node on the network together, across domains and partners, allowing commanders to see, process and pass information from any sensor to any effector globally, enabling machine-speed decision support and the application of fast, precise and devastating effect at ever increasing range. This approach places the focus on the battle-network/kill-chain – achieving better understanding, making quicker decisions and waging longer range warfare. It amplifies one of our most powerful but underrated capabilities, the US/UK and Five Eyes intelligence operation, and will increase the pace and scale of change already being tested through initiatives like Project Asgard and Task Force Rapstone.

10x Lethality. Lethality, alongside mobility and survivability, is a key attribute within the physical component of fighting power. We define lethality in terms of the Army’s ability to generate effects across the battlespace – through precision, scale and speed. This includes long-range fires, digital targeting and the integration of autonomous systems. This is not just about more firepower – it’s about smarter, faster and more survivable operations. The Army of 2035 will be able to out-think, out-maneuvre and out-fight its adversaries through a combination of human skill and technological advantage.

The power of combinations. However, it is not just about increasing firepower, numbers of platforms and new technology per se. It’s about the sum of our people, equipment, training and sustainment aggregating to be more than the sum of its whole. By 2027, doubling our fighting power will be delivered through better training, smarter use of existing capabilities and rapid adaptation. Tripling by 2030 is achieved as the Army fields the new survivable crewed systems and integrates them into a digitally connected force. Set in this context, the SDR’s call for a tenfold increase in lethality is not a single moment in time – it is a trajectory, sustaining this momentum through the next decade.

NATO FIRST

“SACEUR [Supreme Allied Commander Europe] is clear on what critical capabilities he would want the UK to be able to provide for deterrence and, if necessary,

in an escalating crisis or conflict. First and foremost, this is a fully enabled response Corps, which would draw on the range of higher-end capabilities that the UK is traditionally able to offer.” – NATO Secretary General’s SDR submission.

NATO by design. The SDR’s foundational principle of a ‘NATO first’ approach to deterrence and defence resonates throughout the report – “UK Defence will be integrated with NATO by design; in how it plans, thinks and acts”. Importantly, it states that the UK must place NATO at the centre of its force development “with a focus on shaping and meeting NATO capability targets to strengthen the Alliance’s military capabilities”. The recently issued NATO Capability Targets 2025 reconfirm the NATO Secretary General and Supreme Allied Command Europe’s individual submissions to the SDR that, within the context of the NATO Defence Planning Process,¹ NATO’s highest near-term capability priority for the UK is delivering a fully enabled Strategic Reserve Corps;

its top longer-term capability priority is the continued transformation and full enablement of land forces. This context and defined prioritisation by NATO should be the catalyst for the allocation of resource and additional investment within the Defence Investment Plan.

Army Operational Framework. NATO is the primary focus, however, the SDR is clear that NATO first doesn’t mean NATO only. The SDR identifies that the Integrated Force must be able to operate in different configurations: into NATO by design; in coalition (including as a leading framework nation) and as a sovereign force. This validates and endorses the revised Army Operational Framework [see graphic below] for its standing advance, reaction and

¹The UK nuclear deterrent sits outside of the NATO Defence Planning Process.

²A NATO warfighting corps HQ with corps capabilities; two smaller but fully enabled battle-winning divisions; a rapidly deployable crisis response force for joint global effect; cutting-edge land special operations forces; a regeneration function for strategic resilience.

response forces with command and control provided by the Land Component Command and resilience and regeneration delivered by an enhanced Standing Joint Command (UK). Collectively this agile framework enables the Army to deliver its contribution to Defence’s roles globally, across the spectrum of operations and threats; its NATO Article III and V commitments; and from peace and competition, through crisis to conflict.

Army force and organisational design. The SDR reinforces the Army’s iterative approach to optimising and modernising the current force; warfighting at scale is once again our organising principle. In February 2024, the Executive Committee of the Army Board agreed a new agile and incremental approach to force development, formalised the force design intent² and prioritised delivery for maximum strategic value against Height and Edge³ – the corps HQ and those closest to the fight (forward land forces, Land Special Operations Forces and the global response force [16 Air Assault Brigade]).

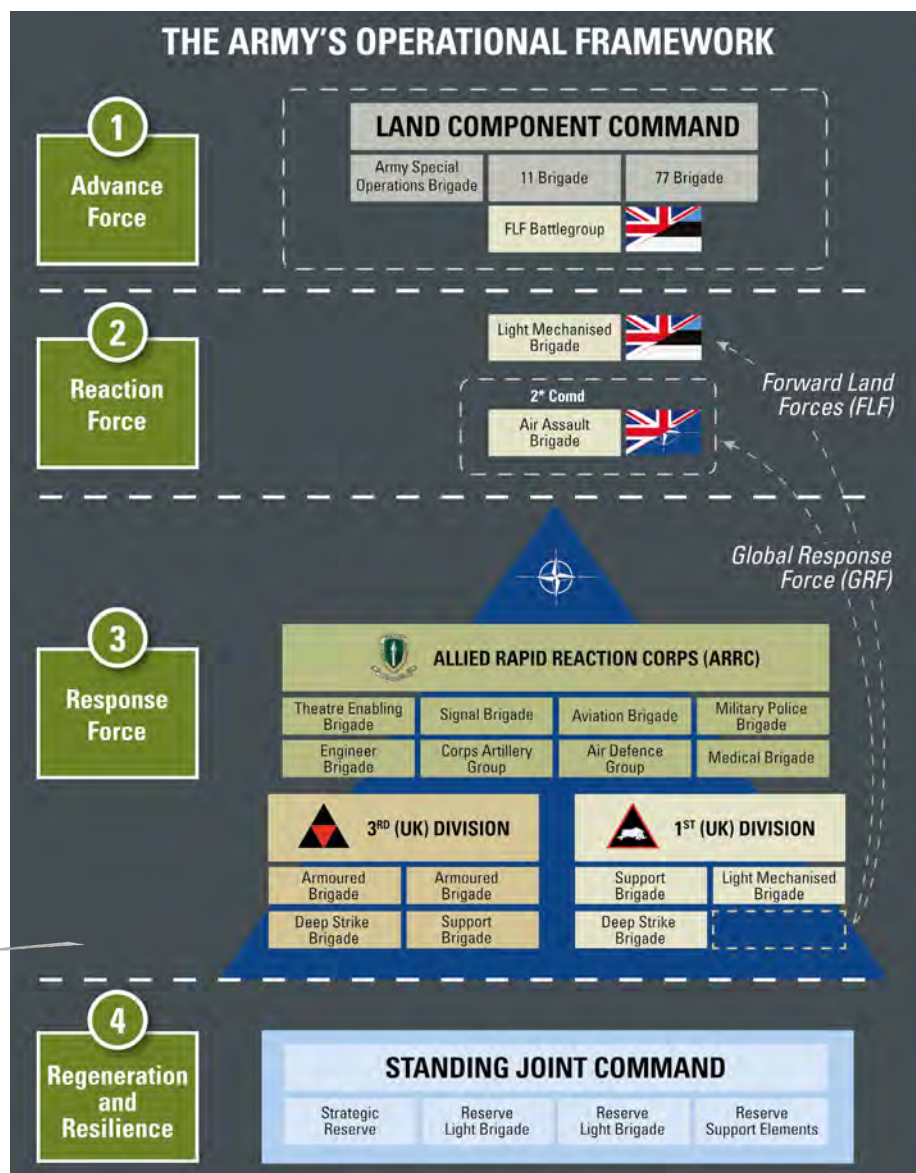
WHAT DOES 10x LETHALITY LOOK LIKE?

By 2035, a tenfold increase in lethality will be characterised by a force that is digitally connected, highly adaptive and capable of delivering decisive effects at scale and speed through:

- Integrated kill-chains that link sensors to effectors across domains and echelons;
- Crewed-uncrewed teaming, where platforms like Apache helicopters are supported by swarms of autonomous systems that extend their reach and firepower;
- Rapid decision-making enabled by artificial intelligence and machine-speed data processing through initiatives like Project Asgard;
- Mass through autonomy, with attritable and consumable systems restoring scale without the cost and risk of traditional platforms;
- Replenished investments in munitions and stockpiles.



THE ARMY’S OPERATIONAL FRAMEWORK



We are building on previous iterations of the Future Soldier plan to deliver NATO's highest near-term priority capability requirement of the UK: a fully enabled Strategic Reserve Corps with two smaller but fully enabled battle-winning divisions.

Strategic Reserve Corps. Today, the Allied Rapid Reaction Corps (ARRC) provides one of NATO's two Strategic Reserve Corps. It is operational now with profiled modernisation delivering the fully enabled Strategic Reserve Corps that NATO demands. The ARRC Strategic Reserve Corps is on orders to meet NATO's operational problems, enabling the Supreme Allied Commander Europe to mitigate risk, manage escalation, create strategic dilemmas across his area of responsibility and ultimately, if necessary, restore territory. The Army intends to make up for shortfalls (in subordinate combat units) by providing the kind of lethality most allies lack and by fighting and operating differently. Collectively the combination of our recapitalisation and transformative capability interventions generates new expressions and scales of precision, mass and capability. This will foster a positive energy in NATO, providing leadership in military transformation as the pacesetter for others to follow and help NATO to recast its capability targets by accepting new methods and metrics.

Structural changes. The Army has already and will continue to implement structural changes to ensure it remains a balanced force which offers choice to sovereign decision-makers and NATO, reflecting a NATO first footing as default with enhanced ability to conduct corps high intensity warfighting. These changes are focused on the Field Army: elevating certain capabilities to enhance the ARRC; rebalancing key capabilities across the warfighting divisions; reorganising the armoured brigades; and restructuring to support modernisation requirement. Organisational adjustments over the last year have seen more formations placed under the ARRC and divisional combat service support reinforced across both 3(UK) and 1(UK) Division. Most recently, the Chief of the General Staff has resubordinated both 1 (UK) and 3 (UK) Divisions under the tactical command of Commander ARRC. These iterative changes will help increase fighting power across all components:

■ **Physical.** Additional and balanced capabilities and staff capacity across the land component, HQ ARRC, Standing Joint Command, and our two warfighting divisions. Enhancing capabilities within select formations, particularly the armoured brigades.



"The Chief of the General Staff's main effort is to accelerate modernisation – prioritising the corps (and hardening the edge at every echelon within it), enabling the ARRC to deliver against the NATO family of plans and those closest to the fight, ensuring our forward forces have an invasion-stopping capability in Estonia."

■ **Conceptual.** Aligning force elements to their NATO Force Model operational headquarters to train as we would fight, therefore generating greater tempo in deploying, integrating, then warfighting.

■ **Moral.** Forming teams in routine training which will carry through to deployments and meet the needs of the nation.

Accelerated modernisation. The long overdue recapitalisation of our core fighting platforms is essential and well under way. The Chief of the General Staff's main effort is to accelerate modernisation, prioritising the corps (and hardening the edge at every echelon within it), enabling the ARRC to deliver against the NATO family of plans and those closest to the fight, ensuring our forward land forces have an invasion-stopping capability in Estonia. Priorities for capability acceleration include: mobile fires platforms, land autonomous collaborative platforms (Project NYX), land mobility platforms (light and medium), Asgard, electronic warfare and rebuilding infantry fighting vehicle capability.

Defence Reform. Defence Reform and

³*Height: measures that increase the Army's stature and convening power as a leader within NATO, associated with growing corps-level capabilities. Edge: measures that contribute most to sovereign UK warfighting competitiveness, focused on delivering transformative and modernised capabilities in support of Recce-Strike and Counter Recce-Strike systems.*

increasing Ministry of Defence efficiency and productivity is a mandated condition of the increase in Defence spending. Defence Reform seeks to change its operating model, optimise processes and deliver clearer accountabilities, faster decision making and greater integration across Defence. Army Reform is being conducted in lockstep and seeks to optimise the Army Operating Model in light of the Defence Reform changes. The later article by Hazel Stone and Colonel Al Rivett will unpack Defence Reform and its implications for the Army (see pages 16-19).

AN ENGINE FOR GROWTH

The Chief of the General Staff's growth through transformation model and the SDR's 'Engine for Growth' are synonymous. Lieutenant Colonel Andrew McDermott's subsequent article in this edition of the *British Army Review* (see pages 12-15) will attend to this item, setting out how fighting power and market power come together to build high-intensity warfighting capability, from and on the land, while privileging transformation and positioning UK Defence and technology at the forefront of national growth. This will deliver economic and societal benefit, build a national arsenal and guarantee the strategic resilience needed for 21st century deterrence.

HARNESSING INNOVATION DRIVEN BY THE LESSONS FROM UKRAINE

Campaign footing. The Army proposition identified our soldiers as our competitive advantage; harnessing their ingenuity, fortitude and energy as the point of difference. It talked to placing innovation, research and experimentation on a campaign footing; using forward land forces and 16 Air Assault Brigade as crucibles for modernisation; pairing industry with soldiers via joint mission teams; increasing convergence with NATO planning, doctrine, training and exercises; and the necessity for adaptation, innovation, imagination and experimentation to flow through our training and education system. This campaign approach is already making tangible and far-reaching difference through a number of mechanisms and examples outlined below.

■ **Taskforce Rapstone** was established in late 2024 to deliver capability insights and ensure the Army is building on the lessons from Ukraine, identifying and delivering cheap, consumable modern technology capabilities into the hands of soldiers at the pace of relevance. Rapstone has developed the Army Problem Book to better communicate the Army's operational and tactical challenges to industry. Despite funding only commencing in April 2025,

Rapstone Optimise projects are fielding capability into the Field Army, now including small drones, counter-drones, robotic and autonomous, and remote sensing capability.

■ The British Army's 'recce-strike complex' comprises digital and data networks, drones, AI and intelligence capabilities to find and strike targets at the maximum range and speed possible. Long-range missiles, armed drones and attack helicopters degrade targets at increasing distances. Then traditional equipment like tanks, rockets and artillery destroy them at close range, holding or re-taking lost ground. The Army is applying this methodology at every level, from a section (fighting beyond line of sight) all the way to our Strategic Reserve Corps (integrating air, naval and space capabilities). The transformative capabilities required to create a genuine 'complex' – in which the UK aims to become a market leader – will create new commercial and dual-use opportunities, reinvigorate the UK industrial base, generate valuable intellectual property, and grow high-tech transferable skills. Exercise Steadfast Defender 27 will be a key milestone to demonstrate progress and credible deterrence.

■ Asgard is a land project that is accelerating the provision of a range of capabilities⁴ for deep recce strike to increase lethality through the agile and rapid integration of people, ideas, data and technology. Asgard embodies the fusion of fieldcraft and technology – techcraft – and is delivering at pace. It is a pathfinder to demonstrate how we can find, fund and fight transformative capabilities differently, better, cheaper and faster. But critically it is delivering a step-change in lethality for NATO's Forward Land Forces in Estonia, converting them from a strategic tripwire into an invasion-stopping capability. It's a project that, through AI-fuelled, software defined, and network enabled capabilities has made 4 Brigade capable of acting ten times faster and ten times further than

⁴Asgard has four lines of effort: Asgard Decide – Software that drives targeting at machine speed. Asgard Communicate – networks and technology that facilitate the passage of data. Asgard Sense – UAS and novel systems that identify potential adversaries. Asgard Effect – One-way attack and loitering munitions.

⁵The Land Training System is made up of three constituent parts: Tradewind (technical trade training), Cyclone (ten-weeks of ring-fenced special-to-arms training for every sub-unit, HQ and echelon); and Storm (bespoke battlegroup and brigade level operational training).

⁶The British Army Review, Issue #193 – Mobilising Minds for the 21st Century Fight, summer 2025.

RAPSTONE AND ASGARD AT A GLANCE

- Modini Dart 250 medium range OWE [one way effector] on contract – 400 due in Estonia by end of 2025.
- Targeting enhancements for Task Force Cabrit.
- Cutting-edge communications equipment, including 700+ dismounted data systems fielded.
- Field testing of initial Asgard capabilities on Exercise Spring Storm in July 2025.
- 3,200+ small unmanned aircraft systems (UAS) operators trained with four fixed training sites and distributed training. A further 6,000 trained operators and an additional 200 simulators delivered over the course of the next year. First-person view strike training to be expanded from July 2025.
- 1,100 small UAS intelligence, surveillance and reconnaissance drones fielded by December 2025. Second delivery of circa 3,000 small UAS first-person view strike drones across Field Army from August 2025.
- Additional delivery of 500 attritable and consumable intelligence, surveillance and reconnaissance platforms to enable intelligence, surveillance and reconnaissance and counter-UAS training from August 2025.
- Rapstone have also commenced delivery of a drone agnostic lethal effector with a training variant to be delivered to the Army by April 2026.
- Mini UAS – medium range intelligence, surveillance and reconnaissance. 90 AV Puma [pictured] in operation, 99 Stalker will be delivered to the Field Army through Project Tequila in 2025.
- Tactical UAS – long-range corps and divisional intelligence, surveillance and reconnaissance. Project Corvus delivering the new land tactical deep find system – 24 x UAS by late 2025.



it could last year. Asgard 1.0 developed a prototype kill chain and delivered enhancements to tactical decision support capability. The next spiral of Asgard will focus on the corps and divisional level, to develop the decision support technology within the land component's part of the Defence Targeting Enterprise.

■ The Army has designed and implemented a new **Land Training System** – a holistic approach to training from individual through to collective competence. The Land Training System vision is to: "Deliver an integrated, expeditionary, and digitalised Army collective training service, with the flexibility to enable the Army to train globally when and where it needs. It will enable the Army to train, in challenging, realistic, multi-domain and world leading environments." In partnership with industry, the Collective Training Transformation Programme is a £2.5 billion investment in Field Army collective training and the Land Training System. It provides an assured training progression to integrate modernisation, individual and collective tactical training into single events⁵ programmed to build combined arms manoeuvre competence, providing the most demanding 21st century combined arms collective training. It will secure the benefits of higher competency (readiness) and faster modernisation whilst protecting current levels of productivity. The Land Training System enables the Army to innovate, experiment, train and integrate platforms, capabilities and lessons at previously unachievable pace and scale.

■ The last edition of the *British Army Review*⁶ focused on the essential role of professional military education, across all ranks, in exploiting technology for competitive advantage and turning the Land Operating Concept into reality. The Land Operating Concept gives us the framework to fight, but how we understand it and apply it is dependent on how we teach and practice it – professional military education and the Land Training System are complementary – 'what is thought must be taught and understood throughout the force'. Both training and education should be designed and evolve to deliver innovation at speed, adapting at the pace of changing warfare and technology.

A WHOLE-OF-SOCIETY APPROACH

"HQ Standing Joint Command (UK) should command all UK military support to national resilience under the Military Strategic Headquarters and be resourced accordingly. It should also be deployed to reconnect Defence

with society as part of a whole-of-society approach to deterrence and defence.”

The SDR recommends that for deterrence to be credible His Majesty’s Government must build and widen participation in national resilience, increase national warfighting readiness and better protect critical national infrastructure. National effort is relevant across the spectrum of competition and crisis, including our NATO Article III obligation to be able to transition to, scale for, and sustain a war against a peer adversary. This requires a whole of society approach to security and resilience as part of the new National Security Strategy, as codified in the Home Defence programme and supported by a Defence Readiness Bill. To deliver this effectively Defence needs to reconnect with society and renew the nation’s contract with those who serve. Standing Joint Command has a foundational and critical role across this endeavour.

Roles and responsibilities. Standing Joint Command will continue to deliver Army firm base support, recruiting, basic training and ceremonial operations. As well as commanding all UK military support to national resilience, the Standing Joint Command’s remit will increase to include a capability to plan resource and exercise the mobilisation, regeneration (second echelon) and reconstitution (third echelon) of forces. It will build capability in its HQ and eight regional joint military commands and maintain a network of joint regional liaison officers, cohering national resilience and integrating other government departments and agencies. It will match supply to demand, delivering capabilities and trained workforce across the spectrum from crisis to NATO Article III and V operations, including tracking, managing, mobilising, training and generating the Strategic Reserve. Standing Joint Command has already taken over command of Defence Guarding under Op Guardian and will assume a greater responsibility for the guarding and protection of critical national infrastructure, including developing options for a ‘new critical national infrastructure protection force’. In a warfighting scenario, Standing Joint Command will support and enable the movement at scale of personnel and materiel. The Command’s national network will allow it to be deployed to lead wider efforts to reconnect Defence with society through its regional joint military commands and joint regional liaison officers. The Army will support wider Defence whole-of-society efforts to:

- Renew the nation’s contract with those who serve. The SDR makes several recommendations which support better

LAND TRAINING SYSTEM PROGRESS

■ In the last three months alone, 72 fighting sub-units have undertaken the new intensive 10-week ‘combat training at echelon’ programme. Over the next 12 months, 400 sub-units or around 90 per cent of the Army will complete that training, an 80 per cent increase compared to 2020.

■ Improved battlegroup performance against key performance indicators by 30 per cent this year, reducing sensor to shooter time by 33 per cent.

■ 1 (UK) Division, 3 (UK) Division and seven brigades have been validated for their NATO combat tasks this year – an unprecedented state of readiness as judged by our peers.



opportunities for our civilian and military workforce. In the Army we will:

- Continue to invest in foundational skills, education and training through apprenticeships and pathways to higher education, creating high-performing and technologically astute operators for the future workforce.
- Continue to work closely with our industry partners to trailblaze future new apprenticeships nationally and develop key skills across the force.
- Work closely with the National Armaments Director to develop a Ministry of Defence wide infrastructure recapitalisation plan and enhance the standard of Service Family Accommodation and Single Living Accommodation by taking advantage of the SDR’s announcement of an additional £1.5 billion to fix military housing.

Size of the Army. Since 1989, six successive Defence Reviews cut the size of the Army alongside deferring, descoping and delaying

capabilities. This review will halt the long-term decline in the size of the Army and increase its size to 76,000 Regulars with more Reserves and cadets. There is still much work to do on inflow and outflow and Standing Joint Command will lead renewed Army efforts to significantly improve recruiting and retention under Op Invictor. The Army will also reinvigorate the active and strategic Reserve.

■ The **active Reserve** will focus on providing combat credible formed sub-units and units as an essential part of the Army’s second echelon. Specialists will be required across the spectrum of the three echelons. The active Reserve will train as it fights; this will be assured through protected access to funding, time and equipment. In line with the SDR, the Army will seek to deliver a 20 per cent increase in the size of the active Reserve.

■ Scalable sponsored and specialist reserves will underpin key assured capabilities, deliver greater integration with industry and support its mobilisation in time of need.

■ The strategic Reserve will be reinvigorated and reconnected to provide surge capacity and scale as part of our conventional deterrence and defence plans at home and abroad. It will include those personnel with a compulsory liability for call out as Regular and recall Reserves.

■ The recall Reserve will be responsible for enhanced resilience by supporting homeland defence and the underpinning institutional foundation, generating low skilled mass at a surge capacity to be part of the Army’s deployed force.

CONCLUSION

The SDR sets a bright North Star for Defence, with recent defence spending announcements presenting the means to reach it. This Review marks genuine change for the Army and sets out a clear plan for transformation in the way we are going to fight, and grow the means to do it; indeed, it orders us to be even more ambitious, bolder and to go further and faster. The critical next step is working with the Department of State, Military Strategic Headquarters and National Armaments Director to ensure that the correct capability choices are prioritised and funded within the Defence Investment Plan. So, challenges remain, and change won’t happen overnight, but as this article has highlighted, considerable progress is being made already against the Chief of the General Staff’s ambition to double and triple fighting power and to deliver the Army the nation needs, NATO wants and that our soldiers deserve.



DELIVERING GROWTH THROUGH TRANSFORMATION

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Si vis pacem, para bellum.

THE Prime Minister introduced the Strategic Defence Review by outlining his duty to keep the British people safe, before setting a vision for the UK to be a “leading tech enabled defence power, with an Integrated Force that deters, fights, and wins through constant innovation at wartime pace”.¹ Laudable words, albeit his predecessors have largely said the same. Dig a little deeper (page 40 in fact) and you’ll see something eye-catching; at least for us Defence industrialists. For the first time there is a specified role for Defence to “develop a thriving, resilient, defence innovation and industrial base”,² a role assessed as fundamental to the delivery of our three enduring tasks; to “defend, protect, and enhance the resilience of the UK, its Overseas Territories, and Crown Dependencies”, to “deter and defend in the Euro-Atlantic”, and to “shape the global security environment”.³ The inclusion of this task within a review of our nation’s Defence policy reminds us that while armies, carrier groups and squadrons of aircraft may win battles, it takes countries to both deter and win wars. Indeed, the focus surrounding gross domestic product percentiles, whilst contextual, is not an entirely representative measurement of national security. What NATO needs, and our country deserves, is an Army capable of

fighting and winning, such that it will deter our adversaries from even considering the use of force.

Ukraine did not have this and, as we watch the grinding conflict play out on smartphones, tablets and TVs, it is important to consider the industrial capacity needed to sustain the fight. The energetic material, the 155mm shells and the scores of drones and one-way effectors that continue to transform the battlefield. If we are to genuinely prepare for war, and we must, we have a duty to address the critical shortfalls in our own industrial base; the factories, the supply chains, the people and the skills – we won’t win without them.

Turning to our primary domain, land will remain decisive and, in a period of unprecedented change, we too must adapt; anything less would resign us to likely defeat or, as the Chief of the General Staff would say, we’re not setting ourselves up for the unfair fight. The threshold we have already started to cross is one of profound transformation; necessitated in part by the Army’s recapitalisation cycle, but also in considering the role of technology in increasing lethality. Our commitment and support to Ukraine has provided unique insight into an operationally proven integrated fighting system, one that relies not only on exquisitely expensive crewed platforms, which remain critical, but on so-

¹Strategic Defence Review, pg 14, 2025.

²Strategic Defence Review, pg 40, 2025.

³Ibid.

called attritable and consumable systems. This view of the battlefield has afforded us first mover advantage, however, to turn this into lasting capability, we need a much healthier Defence ecosystem or, as it is increasingly termed, a national arsenal.

It is in fusing these two truths that the Army's growth through transformation ambition starts to emerge. Deterrence and war necessitate industrial capacity, and the rapid integration of disruptive technologies alongside both in-service systems and our future Programme of Record will transform the Army's lethality. In so doing, this will strengthen our national arsenal and contribute to the Government's growth agenda. Delivering this ambition won't be easy, it never is; however, when the next war chooses us, we should probably be as lethal and as ready as we can be.

Delivering transformative capability whilst strengthening our national arsenal and generating economic growth won't happen as a result of oratorical skill nor worthy intent. To enact the change, we must concurrently deliver across four elements:

- Develop a national endeavour that reconnects Defence with society and ensures more of the nation's talent and resource is brought to bear to enable our national security.
- Exploit the UK's disruptive technology sector and nurture the associated ecosystem to enable increased lethality and a vibrant dual-use industrial sector.
- Build resilience in priority industrial sectors by leveraging our programme of record to secure Defence growth deals⁴ that expand, protect and re-establish onshore industrial capabilities.

■ Drive significant growth in UK land exports through extant export campaigns, cross government co-ordination and an improved government-to-government offer.

NATIONAL ENDEAVOUR

To deliver growth through transformation, the Army must take a 'whole of society' approach, one that starts with improving societal awareness of why the Army matters and what the associated opportunities are; for individuals, academic establishments, core defence and dual-use companies, financial institutions and technologists. Whilst the connection between the Army and society is long-standing, falling personnel numbers and less visible operations have led to a reduced understanding of our outputs to the nation and, framed by threat, the criticality of the enabling industrial base. Helpfully, the Government has already committed to raise public awareness of the threats to the UK, how Defence deters and protects against them, and why there is a requirement for national support to keep our country safe. These initial steps should elevate Defence in the national conversation and consciousness, but what next?

The pace of technological change and the competitive advantage derived through speed and agility mean it is more important than ever for the Army and our industrial base to attract, retain and develop skilled personnel. Initiatives such as the Government's £275 million investment in technical training and apprenticeships, and the Defence Industrial Strategy's 'Destination Defence' should contribute to a pipeline of domestic talent whilst addressing long-standing skills shortages. More widely, the Army must seek to harness the power of the cadet forces and collaborate with STEM [science, technology, engineering and mathematics] skills pipelines, apprenticeship providers, academies, colleges,

universities and regional bodies (such as the Midlands Engine and Defence Wales) to both de-stigmatise careers within the sector whilst also signposting opportunities for rewarding, highly skilled and well-paid jobs. One such opportunity is a partnership with the New Model Institute of Technology and Engineering in Hereford, a university designed for 'change-makers, forward-thinkers, progressives, and doers'.⁵ It is here that students develop STEM skills whilst working on real-world problems directly with employers; a symbiotic relationship could be mutually beneficial.

Concurrently, we must seek to foster a more transparent, honest and collaborative relationship with industry, recognising that, as mission partners, we will only achieve success together. Structures such as the Land Enterprise Working Group (a forum for industry, academia and the Army), and initiatives such as the 'Army Front Door' or 'Army Problem Book', will enable us to be open about the challenges we face and seek to harness the cognitive diversity of small and medium-sized enterprises, academic institutions, dual use technologists and primes to overcome them. In doing so, we must connect our challenges with problem solvers and sources of finance.

Finally, and as both an enabler and an accelerant to change, the barriers in the financial ecosystem that prevent Defence companies reaching their full potential must be addressed. As was identified by a defence and security focused asset manager at the 2025 RUSI Land Warfare Conference, "Defence is trendy right now", however, to

⁴Defence Growth Deals will target high growth sub-sectors to create an ecosystem of skills, housing, and deregulation to enable long-term investment and sustainability.

⁵NMITE website (nmite.ac.uk) accessed 23 June 25.



"The Army must seek to harness the power of the cadet forces and collaborate with STEM skills pipelines, apprenticeship providers, academies, colleges, universities and regional bodies to both de-stigmatise careers within the sector whilst also signposting opportunities for rewarding, highly skilled and well-paid jobs."

enable access to the capital needed to grow and scale (particularly for small and medium-sized enterprises), the sector's financing system needs to be rewired.⁶ Challenges include the restrictions associated with environmental, social and governance funding rules, the reliance on government contracts which create uncertainty for lenders and investors, and the implications of slow procurement processes. Addressing these challenges and improving access to 'slow and patient' capital (rather than private equity and venture capital alone) will enable sustainable growth, particularly in the attritable and consumable spheres.

DISRUPTIVE TECHNOLOGY

The war in Ukraine has demonstrated British industry's ability to deliver, taking its ideas to the fight and supplying low-cost, dual use and disruptive technologies⁷ on the right side of the cost curve. Prior to the conflict, the UK would not have ranked in the top five countries in the world for uncrewed systems, however, we are now ahead of a chasing pack. Our growth through transformation intent to draw these attritable and consumable systems into the British Army will contribute to our doubling and then tripling of lethality, without the need to expand stockpiles, workforce or the number of legacy platforms. These technologies, and the decision support tools that enable the Defence Targeting Enterprise, will allow us to sense and effect further and faster to provide a modern integrated fighting system and, through Rapstone and Project Asgard, we are already seeing these technologies being brought to bear on the frontline for both our and NATO's benefit. However, as we move beyond initial purchases, and scale towards 20/40/40, we must cohere our collective view on what the UK's disruptive technology industrial landscape looks like; for example, where do we have a clear competitive edge and are leading in a global market, where is private capital being invested and how can the Ministry of Defence support this, and are there capabilities that government and Defence should seek to own and offer back to industry? Answering these questions will allow us to meaningfully engage with the disruptive and dual-use technology sectors to sustain our advantage, rather than allowing 'early majority' adopters the opportunity to catch-up.

⁶*Rewiring British Defence Financing* by Luke Charters MP and Alex Baker MP (alexbakermpp.org.uk/wp-content/uploads/2025/06/Rewiring-British-Defence-Financing.pdf) accessed 23 June 25.

⁷AI, drones, networks, sensors and effectors.

⁸*Strategic Defence Review*, pg.3, 2025.

⁹*The Return of Industrial Warfare*, RUSI, 17 June 2022.



“Enacting this change requires a different relationship with industry, including novel funding and commercial models backed by both the Treasury and regulation, a genuine acceptance of risk by commanders, and a delivery enterprise that has a restless culture of growth.”

Looking to the continent, the European industrial ecosystem has, thus far, remained largely hardware centric, with only the US and Israel making noticeable inroads into 'fifth generation technologies'. The opportunities are therefore significant, and offer both transformative military and economic advantage, however, unless we can 'prove' and then 'scale', we won't have the ability to 'share' with others and therein reap the rewards. Defence Reform's segmented approach to procurement has promised to tailor processes and timelines to the type of acquisition, supplier and risk involved, an approach (and perhaps incentivisation structure) which is central to delivering upon the opportunity of a vibrant disruptive technology sector. Enacting this change requires a different relationship with industry, including novel funding and commercial models backed by both the Treasury and regulation, a genuine acceptance of risk by commanders, and a delivery enterprise that is organised differently and has a restless culture of growth.

PRIORITY INDUSTRIAL SECTORS

The land domain spans a broad range of capabilities and sectors and, with industrial strategy moving from a niche consideration to a core component of the Army's proposition, the Land Industrial Strategy team have worked to develop a granular view of the critical industrial capabilities that underpin UK resilience. This analysis identified that general munitions and energetics, small arms and dismounted weapons, complex weapons, heavy ordnance, ground combat systems and disruptive technology industrial sectors warranted an interventionist approach to initially protect and expand them and, where

possible, re-establish onshore facilities. Enacted through shaping capability investment decisions, this approach has thus far delivered new factories at Merthyr Tydfil (Ajax), Telford (Challenger 3 and Boxer), Stockport (Boxer) and Devonport (Jackal), underpinning circa 20,000 skilled jobs. In delivering growth through transformation, it is assessed that investment in the Army will enable the establishment of six further factories across the priority sectors by 2030, directly supporting up to 33,000 skilled jobs; the opportunities are real and credible but will go offshore if we do not act now. In recognising both the 'new era of threat'⁸ and that 'the winner in a prolonged war between two near-peer powers is still based on which side has the strongest industrial base',⁹ it is critical that we must maintain a strategic perspective on priority industrial sector capability investment decisions, being interventionist to derive the right strategic outcomes for the UK and NATO when required. In doing so, we must consider three things.

Firstly, that we require our industrial base for the most demanding scenario, yet have the ability to scale it down and pay a premium for 'always on' production.

Secondly, that sovereign capability is largely a fallacy, less perhaps for capabilities at the top of our national security priorities, such as cryptography. We must therefore find a balance between onshoring supply chains, and having assured access provided by secure offshore sources; applicable across the domains and including ground combat systems, shipbuilding and combat air.

Thirdly, Defence Reform will see responsibility

for the priority industrial sectors transition to the National Armaments Director and delivered through the segmented approach to procurement. This presents the opportunity to re-brigade the Army's programmes and projects into Defence portfolios that will drive better industrial outcomes (as we have witnessed with the approach taken to complex weapons) whilst delivering the industrial growth through transformation opportunities that will build a more resilient industrial base.

EXPORTS

Finally, if the Army is to contribute to developing a 'resilient' industrial base, we must accept that it will not be made so as a result of domestic procurement alone; our requirements are often too small to sustain an 'always on' production line across most prioritised sectors. To do so, the Army, as part of a coordinated cross-Whitehall effort, must seek to nurture exports¹⁰ and capability collaborations to strengthen international partnerships, generate prosperity, and therein support the creation of the national arsenal. With NATO alliance states pledging five per cent of gross domestic product on national security by 2035, there is significant export potential for fielded and operational proven systems and their successors. Using ground combat systems as an example, the European market is projected to grow by 4.5 per cent per annum over the next decade for assets including self-propelled artillery howitzers, air defence systems, heavy protected mobility platforms and tanks. Having already achieved £6.3 billion of export investment as a result of our capability Kitemark and global footprint, the Army's revised growth through transformation target is for exports to the value of £20 billion/10 years. This will also result in the furthering of international partnerships whilst helping to counter the proliferation of Russian and Chinese influence and technologies. When extending the field of view to encompass the global drones and low-cost effectors markets, and framed by our first mover advantage, the export opportunities offer transformative economic benefit for the nation whilst affording NATO wide military advantage. This should be delivered through the cross-government Land Capability Campaigns Office whilst leveraging the Army's global network, defence attachés and trade

networks in addition to an appropriately resourced government-to-government offer, as outlined in the Strategic Defence Review.

CHALLENGES

There are naturally challenges to be overcome and, whilst some of these have been touched on in this article, it is worth dwelling briefly on two; Defence Reform and organisational culture. Firstly, with the Strategic Defence Review released and Defence Reform being enacted, the Department must move quickly from policy to process; delivering upon the change outlined. Growth through transformation has set an ambitious vision of an expanded, competitive and technologically advanced land industrial base that will meaningfully contribute to the establishment of a national arsenal and generate economic growth. Securing this vision means the Army must seek to set National Armaments Director Group portfolios up for success whilst encompassing the Army's growth through transformation requirements. For example, decisions on the defence portfolio approach to munitions will directly impact energetics factories and choices on where and how to secure UK production. Similarly, pan-Defence approaches to unmanned systems will set the conditions for investment in disruptive technologies (including one way effectors) as the requirement is not unique to the Army. There are clear opportunities in National Armaments Director derived coherence of defence innovation, procurement, support, infrastructure and Defence Digital, however, there remains an urgent need for clarity on the processes for getting capability into the hands of those on the frontline at speed and scale.

Secondly, in defining culture as 'the way we do things around here',¹¹ whilst at the same time remaining conscious of the scale of the change set out in both the Strategic Defence Review and Defence Reform, one could argue that there is a mountain to climb. A department that has grown accustomed to certain norms, practices, beliefs and behaviours, yet one that is now committed to 'stronger leadership, clearer accountability, faster delivery, less waste, and better value for money'.¹² There is a tension, and no matter how good the strategy, if an organisation's culture is rigid, risk-averse and bureaucratic, the change will likely falter or, at the very least, culture won't be an enabler or catalyst. Despite the talk of a 'One Defence' culture, and a 'shift in mindset, pace, and risk-appetite to reflect our "NATO first" approach and the strategic environment we are in',¹³ the associated steps to modify the organisation remain opaque. Perhaps they will become apparent as Defence Reform takes hold, as structures are refined, and as processes evolve. While culture is slower to change, it is the foundation that allows strategy to take root. It is therefore a time for strong leadership, recognising that leaders must 'strike a balance between sustaining the strengths of the past, while contributing to the development of a culture that is relevant to meet the multifaceted complex challenges of today and tomorrow'.¹⁴ The seriousness of the situation would indicate that this is too important to be left to chance and, if we consider culture and leadership as 'two sides of the same coin',¹⁵ it is time for our leaders to lead the organisation and its people in the service of those on the frontline.

CONCLUSION

In its purest sense, growth through transformation reflects a moment of profound change; in how the threats we face necessitate industrial capacity founded on factories, assured supply chains, people and skills, and in how insights from conflict have evidenced a modern integrated fighting system and lit the way to a more lethal Army. There are, if we get this right, intended consequences; adversaries who are deterred, not just by a more lethal Army, but by the country that stands behind it; a strengthened national arsenal with a populace more aware of our role (and theirs); and Defence meaningfully contributing to economic growth. Having ceded considerable ground to both allies and adversaries as a result of the peace dividend, the Strategic Defence Review and the subsequent political announcements give tentative hope that the Government recognises and is starting to resource the need to prepare for war. The Army's growth through transformation plan is ready to set the pace and enable the Prime Minister to meaningfully deliver his first duty.

"Having already achieved £6.3 billion of export investment as a result of our capability Kitemark and global footprint, the Army's revised growth through transformation target is for exports to the value of £20 billion/10 years."



¹⁰Of both systems and sub-systems/components.

¹¹Organisational Development, pg 235, 2011.

¹²Strategic Defence Review, pg.5, 2025.

¹³Defence Industrial Strategy, pg.58, 2025.

¹⁴Army Leadership Doctrine, 2021.

¹⁵Organizational Culture and Leadership, 2004.



DEFENCE REFORM AND ITS IMPLICATIONS FOR THE ARMY

AUTHORS

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As the earlier article by Colonel Rupert Kitching sets out, the Strategic Defence Review (SDR) presents a new vision for UK Defence encompassing warfighting readiness, the role of Defence as an engine for growth, becoming 'NATO first', harnessing innovation and adopting a whole-of-society approach. In this context, it outlines the 'what' of Defence ambition. It also includes a number of organisational recommendations which overlap with the existing Defence Reform programme of work. These aspects of the SDR and Defence Reform therefore provide the 'how', i.e. the organisational approach to achieving the SDR's objectives.

Defence Reform reflects a serious attempt to align Defence's structure, processes and culture with a more complex and contested global environment. It recognises the need to deliver effect at pace, adapt swiftly to changing threats and ensure that the military instrument remains relevant and credible. The implications for the British Army are significant, particularly

in the areas of industrial strategy, procurement and force design.

These implications will necessitate change to the existing Army Operating Model to reflect the new structures and processes of Defence. This is why the Army Reform programme, with the Deputy Chief of the General Staff as its sponsor, has been established as a subordinate project to Defence Reform. Army Reform will ensure we best align to the new Defence operating model while also seizing opportunities to improve the performance of our current operating model.

CONTEXTUALISING REFORM

SDR 2025 outlines the Government's intent to sharpen the UK's warfighting edge, strengthen integration across domains and enhance efficiency in how capabilities are delivered and sustained. It intends to signal the end of siloed planning, fragmented delivery and excessive process. Critically, a key outcome of Defence Reform is an operating model with improved accountabilities, i.e. one that is clearer about who is responsible for

delivering what for whom. Defence Reform aims to do this through introducing a new 'quad' of top Defence leaders responsible for four key areas:

■ Permanent Secretary leading the Department of State

Role: The lead policy advisor, providing the vision, strategy, departmental plan and principal accounting officer.

Purpose: Clarifies central strategic direction, ensures cohesion between policy and delivery, and enhances cross-Ministry coordination. As the principal accounting officer, answers to Parliament for Defence operating within budget and delivering value for money.

■ Chief of the Defence Staff leading the Military Strategic Headquarters

Role: The Chief of the Defence Staff is the professional head of the UK's Armed Forces and senior military advisor to the Prime Minister and Secretary of State for Defence.

Focus: Conducts integrated force design and operations across land, maritime, air, cyber and space. Accountable for the Armed Forces' readiness to fight and win.

■ National Armaments Directorate leading the National Armaments Director Group

Role: Ensure the readiness of the national 'arsenal' to meet Defence Plans.

Purpose: To shape and deliver acquisition reform and an industrial strategy to boost the UK's defence industry.

■ Chief of Defence Nuclear leading the Defence Nuclear Organisation

Role: Leads the Defence Nuclear Enterprise and is the focal point, sponsor and additional accounting officer for the Defence Nuclear Enterprise, from strategy to delivery.

Purpose: Ensures strategic visibility, financial control and coherence for submarine-launched nuclear deterrent delivery and readiness.

Through these four areas, Defence Reform seeks to establish robust and streamlined governance, clearer accountabilities and faster decision-making processes across Defence. The purpose is for the Services to be more integrated in planning, readiness, deployment

and procurement, with more integrated force design, a common set of foundation enablers, digital enablement and collaboration with other Government departments – in real time – at its core.

IMPLICATIONS FOR THE ARMY

Military Strategic Headquarters becomes the Army's superior HQ. One of the most significant structural changes introduced by Defence Reform is the establishment of a Military Strategic Headquarters. Under this model the Chief of the Defence Staff now formally commands the Service Chiefs (as a result Chief of the Defence Staff now attends the Army Board). The Chiefs of Staff Committee becomes the Military Strategic Headquarters' senior board with a subordinate one (the Military Strategic Headquarters Board) chaired by the Vice Chief of the Defence Staff and attended by the Deputy Chief of the General Staff. The HQ is charged to drive greater collaboration and support the journey from a 'joint' to an 'integrated' force that better harnesses all five domains of maritime, air, land, cyber and space. It consists of two 3* pillars under Deputy Chief of the Defence Staff (Military Strategy and Operations) and Deputy Chief of the Defence Staff (Force Development). The Army will have to consider how it best realigns its top-level structure to best dock into the Headquarters.

Integrated force design. Previously, force planning was dispersed across multiple commands; however, the Military Strategic Headquarters now serves as a single point of integration, acting as 'the single force development brain' which links strategic policy, capability coherence and operational readiness. As part of this, some of the strategic integration functions previously conducted by UK Strategic Command have

now been bought into the Military Strategic Headquarters. As part of this Director Futures from Strategic Command has moved into Military Strategic Headquarters as Assistant Chief of the Defence Staff Futures & Force Design. Force design is expected to be conducted in a federated way, meaning domain expertise will still be provided from Military Command. The link between the Army Futures Directorate and the Force Development pillar in Military Strategic Headquarters therefore becomes an important one.

Coherence of joint capabilities. Greater coherence of joint capabilities under a single enterprise was identified in the SDR as a priority. This approach seeks to maximise expertise, reduce duplication and increase interoperability. Strategic Command has been renamed Cyber & Specialist Operations Command and is responsible for delivering, at the direction of Military Strategic Headquarters, lead command accountabilities for: cyber and electro-magnetic spectrum capability, Special Forces and Special Operations Forces, Defence intelligence and intelligence, surveillance and reconnaissance; joint command and control; targeting; the Integrated Global Defence Network; Defence Medical Services; and the Defence Academy. For these capabilities, Cyber & Specialist Operations Command will set and enforce common standards across the whole force and under a single vision. Under this model the Army will need to work closely with Cyber & Specialist Operations Command to deliver the domain level and tactical capabilities associated with the Command's responsibilities.

Capability development, portfolios and capability integration. One of the most significant aspects of Defence Reform is the

"The Military Strategic Headquarters is charged to drive greater collaboration and support the journey from a 'joint' to an 'integrated' force that better harnesses all five domains of maritime, air, land, cyber and space."



establishment of the National Armaments Director. Leading capability acquisition and management, the National Armaments Director signifies a shift away from fragmented procurement. Under the role's options and commissioning pillar, the National Armaments Director aims to provide greater agility in capability development, improved transparency, accountability and

enhanced collaboration with industry. A new Integrated Force Strategic Cycle outlines the end-to-end force development cycle. Capability will be delivered through Defence portfolios that sit with the National Armaments Director. The Army to the National Armaments Director interface therefore becomes a critical one, with a need to ensure that those defence lines of development that will continue to be delivered by military commands (people, training and

organisation) are properly integrated with those delivered by the National Armaments Director.

Land Industrial Strategy. The SDR highlights that greater industrial engagement and partnerships are crucial to improved productivity whilst reducing the time from concept to delivery. Under the National Armaments Director, an upcoming Defence Industrial Strategy will outline Defence's intent to create a new partnership with industry by engaging early, ensuring suppliers are rewarded for their productivity and removing barriers to collaboration, especially with smaller companies. Segmentation will also become a factor within a new industry partnership. By understanding the types of acquisition required, it would result in an increased range of suppliers available to Defence through tailored processes and timelines. It is anticipated that the Land Industrial Strategy will be nested within the Defence Industrial Strategy to exploit



Defence/supplier relationships and provide better coherence of common to all industrial requirements for military commands whilst also maintaining land facing outcomes and objectives.

Science innovation and technology. Traditional procurement cycles are not suitable for rapidly evolving, modern warfare. Capability must be identified, developed, tested and deployed within days and weeks, not months and years. Most importantly, it requires delivering capability to soldiers at the speed of relevance. Defence Reform changes, particularly through the National Armaments Director, aim to facilitate this. The new model emphasises agile delivery, empowered decision-making and collaboration with industry from the outset. The SDR acknowledges the need to become more lethal through the development of innovative technologies and this will be delivered by the establishment of two organisations: Defence Research and Evaluation (responsible for designing and delivering early-stage science and technology) and UK Defence Innovation (responsible for finding existing commercial solutions to meet requirements). Both will sit under the National Armaments Director. This will not only benefit UK industry, through investment with UK-based business and delivering the Defence Industrial Strategy, but the Army will be able to leverage some of the annually allocated £400 million to fund Army innovation; accelerating the Service's mission to rapidly increase lethality and enhance its ability to fight at the leading edge of technology.

The People Function Operating Model.

Recommendations to improve recruitment and retention, accommodation, failing morale and cultural challenges have been set out within the SDR and include the requirement for a 'whole force', skills-based approach to workforce planning, creating an empowered workplace and improving training and skills. Recommendations to improve these areas will need to be delivered through Defence Reform via a reformed People Function Operating Model. The intent of this model is to remove excessive bureaucracy through people policy, processes and assurance and deliver clearer accountability of the 'people' function roles and responsibilities. The Army will need to effectively dock into this model to ensure more streamlined management of its personnel policies and coherence with force development through integrated workforce planning.

ARMY REFORM

Defence Reform provides an opportunity, through Army Reform, to address known weaknesses in the Army Operating Model while aligning to the significant changes

"The Army will be able to leverage some of the annually allocated £400 million to fund Army innovation; accelerating the Service's mission to rapidly increase lethality and enhance its ability to fight at the leading edge of technology."

happening across Defence. The Chief of the General Staff's desire to accelerate modernisation to get the Army ready to meet the most demanding warfighting requirements remains paramount. Army Reform offers the opportunity through transformation to deliver against this requirement by creating a stronger operating model configured for warfighting. It is with this imperative in mind that General Sir Roly Walker has declared that the Army is to be a 'fast follower' to Defence Reform; to ensure seamless integration with the reformed Defence Operating Model, to assure the Army's modernisation programme, and to better deliver and support the Army's priority outcomes.

Despite the evolving nature of Defence Reform, there is sufficient imperative and visibility of its direction of travel to conduct a realignment to the reformed Defence Operating Model. Conducting Army Reform in step with Defence Reform puts the Army in a good position to achieve this. Army Reform will not only shape and incorporate the implications from Defence Reform but will ensure any proposed adjustments to optimise the Army Operating Model remain compatible with Defence as it evolves. This will ensure that we design with the best chance of reflecting the future Defence Reform reality. As Defence Reform change will be iterative, Army Reform will have to mirror this approach – meaning that change is likely to be less of a 'big bang' but rather a series of cascading changes as the dependencies within the wider Defence model are agreed. Army Reform will also ensure that, in keeping pace, the Service does not overrun Defence Reform and require further remedial changes downstream. Army Reform changes will be implemented only when they are considered to be 'no regrets' in terms of integration within the wider Army Operating Model or based on confirmed Defence Reform outcomes.

An Army Reform diagnostic identified priority areas of focus for reform to address known shortfalls in the current operating model, make adjustments in line with the evolving Defence Reform military command responsibilities, and seek areas across

both that offer the greatest opportunity for a stronger model. Based on this, work packages have been established for: digital, training, people, capability development/delivery, warfare development, support, medical/healthcare, Infra and Land Component Command. These work packages are the mechanism through which broad cross-functional expertise is being cohered. In addition, broader thematic change requirements across the organisation that seek to address Army Operating Model frictions, or to align to Defence Reform changes, are being incorporated into the design process. This work is taking the outputs and outcomes for the Army, baselined against the Army Command Plan, and applying a functional approach to design before any consideration of form. It is intentionally expansive to ensure it gets to the right functional solutions before regulating down to reflect an integrated system of systems.

Through a deliberate and incremental approach, Army Reform is seeking to move quickly on the things that will deliver catalytic change while ensuring that changes are delivered with no regrets as Defence Reform matures. With this approach in mind, priority areas have been identified for potential early implementation from September 2025 while the detailed functional design work continues. Part of this first wave of change will be the adjustment of the Army's top-level structure and accountabilities to better align with the Military Strategic Headquarters model. Although there is still considerable work to do by Defence Reform to establish the functional underpinning, particularly in the National Armaments Director Group, the Military Strategic Headquarters has been quick to shift to this new operating model and interact with the military commands through it. Adjusting the Army top-level structure now to align to this will ensure that we are configured to operate in this new paradigm, and it would be a physical representation of the Army's intent to be on heels of Defence Reform. In practical terms this will see the alignment of the Army HQ around two 3* pillars, one focused on force development and a second on activity design and command of the land component. A control and balance function will be provided by the Strategic Centre. The key aspect of this will be the elevation of HQ Field Army to the 4* level to be the Land Forces Command within Army HQ.

The need for 'betterment' is clear. Even without Defence Reform, addressing known gaps in the Army Operating Model while configuring it for the heaviest load of warfighting provides a clear imperative for Army Reform to deliver change.



REVELATION AND ASPIRATION OR ACKNOWLEDGEMENT AND COMMITMENT?



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It is both gratifying and frustrating to read through the pages of the Strategic Defence Review (SDR). This is a report that has come with a fanfare of revelation, after multiple delays and adjustments in fast-changing circumstances, as if a Damascene light has just been shone upon the place of Britain in this bewildering world, cutting through the fog of confusion and obfuscation to provide, at last, a clear view of where we are and what needs to be done to keep us safe.

It is gratifying because it is hard to find anything in this Review that does not make eminent sense, and that has not been said by those who have worked with, collaborated with, or written for the CHACR over the last ten years or more. (And, I'm sure, think tanks like RUSI, IISS, Chatham House, et al will be saying and feeling the same thing.) So, it means that we have been on the right track in our musings as we try to help the British Army to think its way through the problems that face it. Which is self-affirming (although possibly in an unhelpfully smug sort of way).

It is also gratifying because the deep level of consultation with the practitioners – the programmers and force development staffs in the three Services and Strategic Command – is

evident in every aspirational page. A larger more modern Navy is welcome (although the buzz-phrase of 'a new Hybrid Navy' offers little other than a plea for more (and more modern) warships and submarines, with some drones). An upgraded Royal Air Force with a balanced mix of crewed and autonomous platforms is equally welcome. And a (slightly) re-enlarged Army, balancing its modernised 'heavy metal' with modern capabilities, including a varied drone and anti-drone arsenal, is the obvious way ahead.¹ A cutting-edge cyber capability and a realistically equipped space capability are long overdue. A genuine attempt to improve homeland security, for the first time since the 1970s, addressing everything from attacks from the air to sabotage, and including the training and exercising of ministers, is also clearly required. The explanations of what these capabilities need to be, how they will be procured, managed, and delivered, and how the Services propose to make best use of them in modern confrontation, conflict and war is clearly explained. It may all seem a little aspirational, but at least it all makes sense, and demonstrates proper consultation by the reviewers, balancing the tensions between those who will have to deliver Defence and those who manage its politics and policies.

¹ Which affirms the Army's Force Development and Futures programmes and also chimes with recent CHACR publications on the subject. See:

a) Sharpe, Stewart and Strohn; *Storm Proofing: Helion 2025*; ISBN 978-1-804517-63-5.

b) *Ares & Athena No 25; Human Fundamentals of Organisational Design*; chacr.org.uk/2024/07/15/ares-athena-issue-25-human-fundamentals-of-organisational-design

c) *Ares & Athena No 26; Fundamental Military Formation*; chacr.org.uk/wp-content/uploads/2024/07/AA-26-Fundamental-Formation.pdf

d) *Ares & Athena No 27; Coup d'Oeil or Coup d'AI*; chacr.org.uk/wp-content/uploads/2024/08/AA-Generalship.pdf

Particularly gratifying were two genuinely strategic elements of the Review's recommendations. First, the reorganisation of the Ministry of Defence to deliver a clear delineation between a political and policy organ and a military strategic HQ, supported by a means of plugging Defence and the nation's Defence-related industries together. If the first two elements can make Defence behave genuinely strategically, and that last element can break the decades-long habit of confusing delivering 'on time' (against a self-imposed absurdly long timeline) with 'timely' (as in swift delivery of apposite capability to those who need it), then that would be a really powerful step out of a long-congealed mire. Second, a move towards returning to equipping the nation with a credible escalation of nuclear capabilities (especially if the unquestionable reliability of alliance with the US is now questionable) is sensible and strategically powerful. All of this is most welcome.

But it is frustrating too, because that growing volume of think tanks' useful research, analysis, observation, comment and contribution alluded to in the second paragraph of this article, while regarded as being 'interesting', has repeatedly over the last couple of decades found its way into the inconvenient truth file, and thus remained academic, in both the literal and the pejorative sense. I am tempted to say "until now", but we shall have to wait and see (and more comment on that follows). I am sure that the think tank world, while agreeing with much, if not all, of what this SDR has to offer, will not be saying "well I never!", but rather "what has taken us so long to get here?" and "more and faster, please!".

So what, exactly, is so frustrating? The opening words of the two-page summary of the SDR (very useful for those too busy to read the report itself), in bold type tells us: **"The world has changed."** But when did it change? All of a sudden, just now? Certainly state-on-state conflict has self-evidently returned in an un-ignorable way. For sure, the posturing and pummelling of the Trump administration has forced Britain (and the rest of Europe)

²See, for example: Stroh; *The Long Shadow Of World War II*; Casemate 2021; ISBN 978-1-95271-502-0. And also *Ares & Athena* No 17; chacr.org.uk/wp-content/uploads/2021/05/20201013-Ares-and-Athena-17.pdf

³*Ares & Athena* No 3; *Russia. Wake Up And Smell The Vodka*; chacr.org.uk/wp-content/uploads/2019/11/20160314-Ares-and-Athena-03.pdf

⁴See *Ares & Athena* No 19; *(Re)Thinking Russia*; chacr.org.uk/wp-content/uploads/2022/05/AA19-Russia.pdf. And: *Ares & Athena* No 22; *Managing Strategic Consequences*; chacr.org.uk/wp-content/uploads/2023/07/Ares-Athena-22-MSQ.pdf

to take a more responsible attitude to the preservation of its own security. But our own little British world, arguably, started changing on an inevitable path towards our current era of troubled self-doubt and petty short-termism when our early failings in the Second World War (and subsequent debt from it) revealed the ageing toothlessness of the British Lion that still bestrode the globe.² The end of the Cold War did not bring about the 'end of history', but just its ongoing evolution. The distractions of Iraq and Afghanistan lulled strategists into thinking that 'wars of choice' were a real strategic security absolute. 'Op Entirety' was able to be conducted, and to be so-named, because the long-term imperative to maintain and manage a macro-level strategic warfighting force was quietly allowed to be shelved in the hope that the hollowing out of that capability would not go too far while the micro-level problem of Afghanistan was resolved. More relevantly, in the context of the musings of this SDR, however, the world (or at least the previous half-century or more of the observance of rules governing good order in the world) clearly changed in 2014 when Russia waltzed into the Crimea and no one did anything about it. More than ten years ago. Regardless of how inconvenient it may be, this has been clear and obvious to any thinking observer. Public, private and think tank discussions have been saying as much for over a decade. So, this headline in the SDR needs to be acknowledged not as a revelation, but as a re-statement of the blindingly obvious that has been too-long ignored.

Ten years ago, driven by the lack of realism in

the reaction to Russia's seizure of the Crimea, the CHACR held a workshop. It was chaired by the then Chief of the General Staff, and it asked how "the world has changed". The findings of that workshop, resisted in Whitehall and pushed aside as much as possible, were published in an *Ares & Athena* entitled *Is it time for the West to wake up and smell the vodka?*³ It suited the Ministry of Defence and the Foreign Office at the time to permit the Treasury to wish away the threat, and thus to allow urgently needed attention and spending to be directed into areas that more palpably touched the British voting public. Crimea, after all, was a long way away in both geography (how many British school children (or adults, come to that) could point to it on a map?) and history (Florence Nightingale and the Charge of the Light Brigade, and all that). Furthermore, Whitehall had a policy of rapprochement (appeasement?) towards Russia at the time, and therefore apparently shrill warnings from militarily-connected think tanks were positively unwelcome, and thus resisted. It was not until the 'Special Military Operation' was launched into Ukraine in 2022 that the blinkers were finally torn aside, and Britain, along with her allies in Europe and the US, was forced to confront the self-evident 'new reality'.⁴ The actuality of war in Europe was back, and the danger of more, wider, war in Europe was real and proximate.

So: "The world has changed." Agreed. Got it. The Review then gives us five headlines: Move to warfighting readiness; Engine for Growth; NATO First; UK Innovation driven by lessons from Ukraine; and Whole-of-Society



"Whitehall had a policy of rapprochement (appeasement?) towards Russia at the time, and therefore apparently shrill warnings from militarily-connected think tanks were positively unwelcome, and thus resisted."

Approach. These headlines urge a departure from the business of Defence over the last two decades, or more, and suggest a newly-imagined future, urgent and long-overdue in its consideration. If one pauses for a moment over that first headline, though, it should give a thinking public the right to ask a worried and bemused question: “You mean that our Armed Forces are not ready, and have not been ready for some time, for warfighting? What?!”

Again, the security-facing think tanks would queue up to agree, and ask “why has no-one in policy-making jobs acknowledged this until now?”. Take the two headlines ‘Engine For Growth’ and ‘Whole-of-Society Approach’ for example. In April 2015, over ten years ago, the CHACR held another high-level workshop, bringing together a wide-ranging group of senior practitioners and commentators from the worlds of business, the Army, the Civil Service and academia. The very useful opinions of the group were captured in *Ares & Athena* Issue No 1 and were summarised as follows: “The British Army could be much more wisely used as a tool to support wider British interests, including commercial interests... [and] ...the Army needs to do a much better job of understanding and explaining the potential that it holds to support the nation’s prosperity.”⁵

The Chief of the General Staff at the time, General Sir Nick Carter, frustrated that the discussions in that April workshop had provided a wealth of ‘obvious truths’ that had been ignored or placed in the ‘not-urgent-so-not-today (permanently) tray’, ordered a follow-up workshop in October of that year. He again attended the day himself, led the discussions, and ensured that it was well attended by another range of senior practitioners, business people, civil servants,



academics and commentators. A summary of that day was published, on the Chief of the General Staff’s direction, as *Ares & Athena* No 2.⁶ In July 2017 another workshop and subsequent *Ares & Athena* explored the British Army’s contribution (and potential for further contribution) to UK society and prosperity.⁷ And again in December 2017.⁸ With little having changed as a result of these senior-level musings and undertakings to ‘put this right’ in the intervening years, a further similar workshop was led six years later, in 2023, by three generals: the Director of Army Programmes; the Director Army Futures; and the Chief of Staff of the Field Army. The messages on growth, prosperity, whole-of-society engagement, and imaginative approaches to commercial partnership, risk and engagement, as strong as ever, remained constant...⁹

As for the ‘NATO First’ headline, again we all agree and have done so for some time now (see, for example, *Ares & Athena* No 16, of December 2019).¹⁰ Despite the end of the Cold War, Defence Reviews since the 1990s have placed NATO at the foundation of the nation’s security, as it should be. Generations of British officers in NATO appointments have not, however, felt the weight of that exhortation in support of their daily endeavours. The last 30 years of British Defence behaviour, despite its encouraging words for NATO, has been as keen to leverage from NATO, and to influence it, as it has been to contribute to it. Without doubt, the authors of this SDR mean it this time¹¹ – let us hope that the implementers (from the strategists, through the policy writers and NATO staff officers, to the commanders of formations and units) genuinely get to practice



⁵*Ares & Athena* No 1; *Contributing to Strategic Influence and Prosperity*; chacr.org.uk/wp-content/uploads/2019/11/20150314-Ares-and-Athena-01.pdf

⁶*Ares & Athena* No 2; *Investigating The Whole Force Approach*; chacr.org.uk/wp-content/uploads/2019/11/20151216-Ares-and-Athena-02.pdf

⁷*Ares & Athena* No 9; *The British Army’s Contribution To UK Society And Prosperity*; chacr.org.uk/wp-content/uploads/2019/11/20170719-Ares-and-Athena-09.pdf

⁸*Ares & Athena* No 12; *Defence Engagement And The Role Of The Private Sector*; chacr.org.uk/wp-content/uploads/2019/11/20171218-Ares-and-Athena-12.pdf

⁹*Ares & Athena* No 24; *Agile Procurement*; chacr.org.uk/wp-content/uploads/2023/12/AA-AP-post-workshop.pdf

¹⁰*Ares & Athena* No 16; *NATO Today: Challenges And Opportunities*; chacr.org.uk/wp-content/uploads/2019/11/20191121-Ares-and-Athena-16.pdf

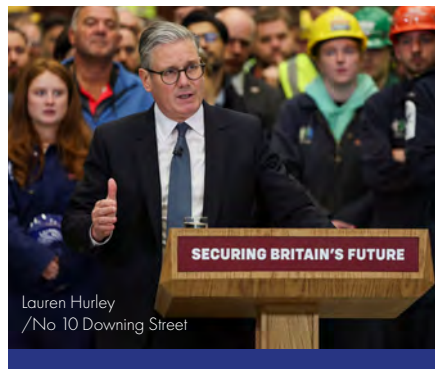
¹¹*The Leader of the SDR, Lord Robertson, was Secretary General of NATO from 1999 to 2003, and remains a staunch advocate of the strength and value of the alliance, and of the depth of members’ responsibility to it.*

it in a way that would have had meaning and understanding in the 1970s.

One of General Sir Patrick Sanders' first steps, on taking over as the Chief of the General Staff in June 2022, was to speak publicly about his concern that we, Britain, and by extension Europe and the US, were in a '1937 moment', with precious little time to get properly ready for the conflict that was coming our way. For him, and for most of the Army, this was a self-evident truth. His urge to 'mobilise' was misunderstood by many, misreported often, and dampened down by the Establishment (including by the Chief of Defence Staff himself). Sanders had the strength of character to uphold his position. General Sir Roly Walker has maintained it. This SDR acknowledges it.

So far so good, then. The devil is, of course, always in the detail. And the nuance of the detail leaves one with a slight feeling of disquiet, despite the positivity of the message and the right-thinking behind the proposed direction of travel. First of all, it will not have escaped the notice of Defence budgeteers that the Review quietly asks for £6 billion of savings, now, before any new money goes in in a couple of years' time. That means that soldiers can expect a couple of years of becoming even more 'hollow', before they start to feel any relief or revitalisation. There is something slightly nonsensical about stating that Defence has already been boosted this year by an extra £5 billion, and then asking for £6 billion of savings. But an undertaking to raise Defence spending to 2.5 per cent of gross domestic product (GDP) by 2027 is most welcome. The Prime Minister's statement that "...we have set the ambition to reach three per cent in the next Parliament, subject to economic and fiscal conditions..." is also welcome, but the sceptics have already pointed huge fingers at the word 'ambition'. The current Secretary General of NATO, Mark Rutte, made it clear that he believes that three per cent is not nearly enough. At the recent NATO Summit the UK 'led the way' by undertaking to commit 3.5 per cent and five per cent to defence and security, which is even more welcome; although exactly how and when remained unclear. Many commentators agree with Rutte that 'now' might not be soon enough, let alone 'later' (including, if recent reports in the press are to be believed, General Sir Richard Barrons, one of the authors of the SDR).

It is now some 30 years since the UK has considered it necessary to spend as much as three per cent of its GDP on Defence. In the early years of the Cold War spending fluctuated between 7.5 and five per cent, and



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stayed consistently between four and five per cent until the collapse of the Warsaw Pact and the fall of the Berlin Wall. It has been below 2.5 per cent since 1995. This represents three decades of underinvestment that will need to be put right if Britain is to "move to warfighting readiness". An ambition to get to three per cent sometime in the next Parliament is a small non-guaranteed step in the right direction, but it is unlikely to get to the described destination any time soon.

The SDR leaves me with two other niggles of concern. The first is geo-political. The Trump administration has shaken not only NATO's view of itself, but also the accepted view of the applicability of the norms and rules of inter-state relationships and the 'rules-based world order'. For obvious reasons the SDR has resisted commenting upon that state of affairs. The 'Strategic Context' section (pages 24 to 30), for example, makes almost no mention of our relationship with the US, nor with the US' relationship with NATO. But it cannot be ignored and needs to be acknowledged in circles where less political and diplomatic sensitivity has to be applied.

The second concerns the age-old tension between expensive exquisite capabilities and good old-fashioned mass. If nothing else, the war in Ukraine has reminded us that war on land is a casualty-inflicting, grinding, firepower-intensive, equipment-consuming slugfest. For a modern Army to endure, let

alone prevail, it will require capability depth. The 20-40-40 explanation of how the British Army intends to fight is clear, and is a useful and useable ambition for the near-future force. This force will be equipped with the most modern of cutting-edge capabilities. Equally important, though, is the need to re-establish a mind-set that sees the value in lots of (or, at least, enough of) 'good enough' capabilities in the hands of enough excellent people. Lots of relatively cheap, off-the-shelf, throw-away, good-enough things endure long after the small number of exquisite things have been exhausted. Lots of 'good enough' people, who can quickly become 'excellent people' will provide strategic depth. The fast pace of technological advance and skills changes mean that lots of things, and of people, that currently belong outside Defence, may need to find their way very rapidly, at scale, into Defence, at short notice, if our '1937 moment' tips into a '1940 moment'. The Army knows this, and is actively pursuing this line of development. The tone of the SDR recognises this, but the devil of the detail of it hints that the Army may not be given the enablers that it needs to conduct the required radical change at the pace and scale that circumstances demand.

So, without falling into a hubris-laden trap that would make even Ozymandias blush, I can summarise my thoughts by saying not so much "we told you so" as "your statement of agreement with the strategic context as we all see it is most welcome". The circumstances in which we find ourselves, and the commensurate threat that comes with those circumstances, has been acknowledged in a very positive way. The methodologies described to address those threats are understood and would seem to be sensible, practical and achievable. The leadership statements that "...we will never gamble with our national security..." and the undertaking to "...make [Defence] the fundamental organising principle of government..." are exactly what is required. But the repetition of "...when funding allows..." is a cause for the sceptics to smirk. The Morland cartoon in *The Times* on the 3rd of June, portraying the Prime Minister as a Lifeguards trumpeter astride a giant snail looking like the Chancellor, was cruel.¹² If we have been given a fleeting reprieve by world events, and remain temporarily suspended in General Sanders' 1937 moment, then let us hope that the cartoon is also unfair.

¹²*The Times*, [thetimes.com/article/6b14676e-d63c-4d88-8da1-be80b9da7e14?shareToken=9b8e8615883b9a66e70084b621aad778](https://www.thetimes.com/article/6b14676e-d63c-4d88-8da1-be80b9da7e14?shareToken=9b8e8615883b9a66e70084b621aad778)

'NOT ALL OF DEFENCE'S HEROES WEAR CAMOUFLAGE'

AUTHOR

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FOR the first time in a long time, the UK faces the credible possibility of having to fight a war of national survival within ten years. Naturally, the public debate is dominated by military capability and political will. Do we have enough of either, and if not, can we make good the gaps fast enough? This is not surprising. Armed forces configured to deter or defeat Russia with little or no assistance from the US, if that is what it comes to, will look very different to those we have today and will require the engagement of all of society to build.

Not much, if anything, however, is being written publicly about the Ministry of Defence (MoD) Civil Service and, on the occasion it does make the news, the debate is almost entirely focused on 'making it smaller' – ignoring the fact that civil servants deliver a specific set of skills to a defence enterprise that is currently getting larger. This article, based on interviews with serving and recently retired MoD civil servants from a range of levels, seeks to move beyond a one-dimensional understanding based only on numbers to explain the role and evolution of the organisation and ask how it should change for the future.

THE ROLE OF THE MOD CIVIL SERVICE

There is no single pithy sentence set down in policy or doctrine to describe the role of civil servants in defence. This is

because the MoD Civil Service is only a unified entity in the loosest sense of being 'individuals governed by the Civil Service code who work for the Ministry of Defence'. The entity is probably best thought of in functional terms which, as described by a former senior civil servant, fall broadly into three groups. First, a group concerned with 'direct support to military units'. Second, a cohort concerned with vital 'specialist functions like science and research which need to be addressed as strategic requirements', and a third group concerned with 'supporting the functions of the Department of State, enabling Ministerial control and parliamentary accountability'. We should not get carried away with the homogeneity of these



'groups'. Within them sit civil servants with very different skills, experience and backgrounds. These three functions will, however, simplify the discussion without misleading.

The core guiding principle of the MoD Civil Service as a whole is to deliver the defence policy outcomes demanded by the government alongside the military.¹ Because of the way it is structured and the absence of a deployability requirement for most, it can recruit people who would never dream of committing to wear a uniform. It can bring in high levels of technical experience in science, engineering and project management from the wider economy and allow experts to stay in a role for decades if appropriate. Through its membership of the wider 'home Civil Service' and regular movement across different departments, it can provide plugs and sockets to the rest of government. In short, civilians are not pound shop Army officers, they are something quite different, if not easy to define.

THE CONTEXT

Before talking about adaptation or reform it is important to understand the current context for the MoD Civil Service as it has evolved since the Cold War. In 1990 there were approximately 140,000 MoD civil servants, reducing to 100,000 by 2000 and 63,000 today.² Much of that reduction has been achieved by transferring those outputs to the private sector or reductions in scale against certain outputs.³ To that extent, there can be little complaint. It is entirely legitimate for ministers to reduce defence inputs as long as they reduce or transfer outputs as well, or support credible investment in improved productivity.

In the years following the initial peace dividend, however, reductions in Civil Service headcount became habitual without regard to outputs. All three armed services have also suffered similarly with this input-led defence policy (Cornish et al., 2025). Of nine defence or integrated reviews since 1990, only one has not reduced the size of the MoD Civil Service and that is in addition to wider UK Civil Service reviews that generally caught the MoD as collateral damage, especially in the wake of the 2008 financial crisis.⁴ Over time it has become harder and harder to track what has become of many of the functions transferred out to the private sector as original bidders were bought, merged, reorganised and rationalised.

Perpetual reduction was also supported by a narrative that there was nothing special about defence as a Civil Service career stream. The hypothesis, strengthened (some say driven) by declining resources, was that Whitehall departmental fiefdoms created fragmented policy and inefficiency. Civil servants were unduly loyal to their departments and, in any case, there was not much difference between delivering health policy or defence policy. Professional business skills such as project management or financial management mattered, but subject matter knowledge (for instance of the defence policy planning process) did not.

Such developments should not be caricatured as inherently bad.⁵ Whitehall has always had a problem with tribalism and no-one could argue with professional upskilling. On the other hand, it is difficult to find a direct analogue for military operations or even military

procurement across the rest of government. The biggest problem was that this ideology intersected with decimated training budgets and human resources departments in the wake of the financial crisis. What training budgets were left had to be directed to professional skills rather than subject matter courses specific to defence. Given that the armed forces were by and large responsible for delivering courses that taught civilians about defence, decimation of their own training budgets also hit hard. The MoD lost control of its management development scheme for graduates, which was folded under the Cabinet Office and the last vestiges of career management in the department disappeared.

As a result of ever dwindling resources, 'pairing' was also abandoned. Pairing was based on the concept that whilst military staff officers provided the connections across the military, the Civil Service provided the plugs and sockets into the machinery of government and ministers provided plugs and sockets into democratic accountability. The policy process was not about marking each others' homework. The Civil Service cannot tell the military how to fight. It was a separation of discrete functions to ensure coherent policy that delivered necessary military capability and effect, was financially and legally sound, was aligned with wider government policy and would be accepted democratically. Superficially, however, this system looked too much like inefficiency. Ironically, removing it made things far slower as plugs and sockets had to be constantly rediscovered issue by issue. Bluntly, the role of bringing in wider government interests was also not always popular, and for some senior Army officers the idea of moving irritating bureaucrats out of the way rather than having to deal with them was no doubt attractive.

Contrary to popular media caricatures, the



¹A somewhat vague and imperfect phrase. Arguably a defence contractor would also be covered by this if they have signed up to deliver a contract intended to contribute to the delivery of policy, but they would not be covered by the Civil Service code, which matters because they are not obliged to be impartial and objective on behalf of the taxpayer. They are only required to maximise returns to shareholders.

²For an excellent deep dive into the current statistics see (Thin Pin Striped Line, 2023).

³The defence estate for example is now much smaller and therefore naturally requires less staff to manage.

⁴The MoD Faststream for example, now defunct and replaced by a government wide Faststream that no longer produces defence specialists.

⁵Those interested in the reasoning behind civil service reform post SDR should consult the Maude Review. (HM Government, 2012).

MoD has not been oblivious to these issues and a great many suboptimal organisational changes were driven not by incompetence but an absence of money and head count. In an attempt to mitigate risks of group think the department has over the last five years created SONAC [Secretary of State's Office of Net Assessment and Challenge] – although that is really designed to deliver red teaming and challenge, not connections across government. We now stand on the doorstep of Defence Reform with its stated desire to clearly separate the four functions of Department of State, Military Strategic Headquarters, the National Armaments Director Group and Defence Nuclear Enterprise. This is a promising reform, although it will not automatically separate the civilian function without detailed work to identify the structures and workforce necessary to deliver each pillar as a truly empowered function. Simply reshuffling the existing deck of directorates into these new categories will not change much.

Although this may raise a smirk for hardened Army combat veterans, along with 'pairing', the noble art of filing has also suffered over the last 35 years. Given we apparently sit on the edge of an artificial intelligence revolution we should remember that the period from 1990 to now represents the IT revolution. When the department moved to electronic storage and email in the late 1990s the process for recording not only what had been decided, but by whom, why, who had disagreed and what data lay under the decision was significantly eroded. This is not because a computer system is inherently incapable of doing that, but because it cannot do it intelligently (even in the AI era) without human intervention. It can file and recover documents far faster, but it cannot create or extract meaning (McIver, 2023). And knowing what an organisation decided five years ago is of marginal use if it is impossible to reconstruct why.

The IT revolution led to the demise of registries – small teams of junior grade, but long in experience, administrative staff who were

best thought of as the departmental librarians. The IT revolution was not seen as a new technological demand on staff, but another welcome saving in the era of the peace dividend. The department shall not be returning to human registries, but there is no doubt it lost something in knowledge management with their demise that has so far not been replicated with SharePoint. Whilst unglamorous, the Civil Service role in knowledge management was critical to lessons learning and it is hard, when watching the department soul search over why it does not learn lessons, not to suggest we start with the simple step of developing a filing system that enables us to remember why we did what we did five years ago. As the integrated procurement system aggressively pursues spiral development and the 3,2,1 model⁶ and operational forces seeks to adapt to a peer who is learning every day on the battlefield, knowledge management will become even more important.

I hope this brief canter through the last 35 years of the MoD Civil Service has convinced readers there is more to discuss over the next few years than how to make it a bit smaller. It has experienced significant change more often than not determined by constrained input rather than ideal outputs. Its reduction has proceeded based on some assumptions that may need to be revisited. Is defence policy really just like any other government policy? Is active career management to manage skills pipelines and ensure staff learn 'defence' unnecessary and wasteful? Is pairing inefficient, or does it lead to better decisions? Does artificial intelligence mean fewer people or more people in order to properly understand and exploit it? Is a clearly separated set of MoD Civil Service functions and identity best or just a loose collection of individuals who plug in around the military?

THE FUTURE

We are not going to definitively answer these questions in the space of a *British Army Review* article. Nor is one person alone going to come up with the perfect plan for an entity as diverse

as the MoD Civil Service. The purpose of this article is to provoke a debate and in that spirit some principles and proposals follow.

First of all, defence is different. In contrast to other government departments it produces little legislation, procures in a unique monopsonistic defence industrial environment, exercises direct executive authority over policy implementation, has a very different relationship with local government, still has to worry about diplomacy and operating overseas and deals with three tribal and unique constituting Services. Everybody is special of course, but so is defence. The future of the MoD Civil Service should be coherent with plans for the wider UK Civil Service but should not just be hoovered up inside it.

In the absence of any root and branch, output-based review of the MoD Civil Service being conducted in at least the last 35 years,⁷ one is well overdue. In the natural order of things this would drop out of Defence Strategic Guidance. At the time of writing we are digesting the detail of a new Security Defence Review whilst the world of geostrategy waits to see how far and fast the US will decouple from NATO, Europe and Ukraine. We cannot, therefore, expect the Security Defence Review to answer everything. The shift of political culture from defence being simply a cost, to defence being a non-negotiable output for which money must be found will also take time.

Rather than approaching the problem from the perspective of head count we need an audit that determines the required output of the three main functional groups. For the group that directly supports Army units, the output can be simply derived from the defence lines of development established for any specific capability. Whether or not any component of a capability is delivered by soldiers, civil servants or contractors will come down ultimately to cost, whether it must be deployable and democratic control. The continuum from front-line combat forces to the

"The IT revolution led to the demise of registries – small teams of junior grade, but long in experience, administrative staff who were best thought of as the departmental librarians. The IT revolution was not seen as a new technological demand on staff, but another welcome saving in the era of the peace dividend. The department shall not be returning to human registries, but there is no doubt it lost something in knowledge management with their demise that has so far not been replicated with SharePoint."



industry and society that builds and sustains them is complex and involves deciding what must be delivered under democratic control and what can be delivered under private shareholder control. What risk can never realistically be transferred from the public sector and what risk can be passed to the private sector for a reasonable price? The outputs of this and the following group can only fall out of clear policy, not just of required capabilities but these questions as well.

For the group that delivers specialist functions considered as key strategic requirements for defence, the environment over the next ten years is likely to be highly dynamic. We naturally think immediately of scientists and engineers, but arguably other areas like arms control, human resources and commercial skills deserve to be treated similarly. One interviewee who had held senior positions in procurement lamented that whilst the department has always done financial accountancy well, it does not invest enough in the skills to do management accountancy well.⁸ Combining an understanding of military capability and the defence industrial base with accountancy qualifications makes for a highly technically specialist role which arguably requires years to master.

Again, once the range of essential 'strategic skills and specialisations' is established there will need to be an assessment made of whether they are best delivered by soldiers, civil servants or contractors. Realistically this process will need to be iterative. Especially in the current environment of peer competition, new needs will pop up and old ones drop off frequently. There are plenty of patriotic individuals interested in national defence who could not/would not deal with the demands of military service. It will also need to be holistic. Individual specialisations will need to connect in a way that allows the department to be an 'intelligent strategic customer'. And it will need to release as many soldiers as possible for tasks only they can do given the Army will never be able to recruit as many as it would like. Several interviewees for instance questioned whether Army personnel in procurement should be focused only on requirements setting, leaving everything else to the civil service or industry.

Finally, we come to the group concerned with supporting the Department of State, enabling ministerial control and parliamentary accountability. This is the group best represented in popular culture by *Yes Minister* and bluntly the group the Army is most likely to fall out with. As the link to ministers and the rest of government they are likely to be



"An army must breed loyalty or it will fail in combat. Individuals who have been trained and prepared to risk their lives for an institution cannot be expected to shelve the interests of that institution when they put on a suit and take a desk in Main Building. But such a system does therefore need checks and balances."

regiments or ensuring the Army loses less in a defence review than the Royal Air Force or Royal Navy. If they ran defence reviews you can be assured the procurement budget would not be divided equally three ways because it would be an extraordinary coincidence if any objective strategic analysis concluded that was the right answer.

This is not meant to be pejorative. An army must breed loyalty or it will fail in combat. Individuals who have been trained and prepared to risk their lives for an institution cannot be expected to shelve the interests of that institution when they put on a suit and take a desk in Main Building. But such a system does therefore need checks and balances. Any review of the Department of State group does not need to review the core functions of ministerial support, policy planning and machinery of government, but it should review whether those functions are sufficiently separated and understood after years of resource cuts and mergers to provide the checks and balances they should.

Then comes the glue that holds the entity together. Human resources and career management. Any widespread audit of skills and requirements is almost certain to establish the need for change. Arguably, the department will need to return to some greater degree of career management just to recruit and build the right skills and get them to where they are needed. It will not happen 'naturally' in a free market. Several of those I spoke to would welcome it anyway, feeling that unfettered individual responsibility on when and where to move jobs has led to anarchy not agility.

Finally, we should tackle the question of an MoD Civil Service 'identity' which most

interviewees for this piece believe has been significantly eroded. Academic work on organisational theory asserts that 'identifying' with one's work is a powerful driver of performance. It is driven by an alignment of one's own values with the organisation, by a clear function or practice that one performs within a tight team and belief in the wider mission of the organisation.⁹ This is powerful because it goes beyond the transactional need for a salary to meet the sociological need to find meaning and belonging. The Army trades heavily on it, as it must if it is to ask soldiers to walk towards gunfire.

The MoD Civil Service will not develop identity in the way the armed forces do. It will always be a looser entity spread across its three functions, drawn outwards to the rest of government or the private sector with a more diverse recruitment base. Those features are part of its role and strength. But there does also need to be a 'defence coherence' that recognises core skills, core role and a core value to defence. MoD Civil Service identity and defence coherence is worthy of an article in its own right – for now I just plant the flag.

To those who were expecting a proposed wiring diagram and elaborate justification for a return to 140,000 civil servants I apologise. After 35 years of civil service restructuring based on headcount reductions, my elaborate justification is only for future reform based on outputs as well as inputs, sound principles, appreciation of past lessons and minds sufficiently open not to start with a planning assumption of a ten per cent headcount reduction. As a major customer, and in an new era of rising rather than shrinking defence budgets, I hope the Army can support that.

⁶3 contractors given a problem statement and asked for a conceptual solution, 2 asked to build a prototype, 1 prototype scaled for delivery as a capability. (House of Commons Public Accounts Committee, 2025).

⁷Defence Reviews and Cabinet Office Civil Service Reform initiatives, of which there have been many, only strike the MOD civil service obliquely apart from the perpetual demand for staff cuts and have often been at odds. Compare for instance the Grey Review (Gray, 2009) on Defence Procurement with the Maude review on the Civil Service (HM Government, 2012).

⁸Financial accountancy is ultimately about ensuring the department does not pay out more than it has each year. Management accountancy is about forecasting, balance of investment decisions and sensitivity analysis. The Department almost perpetually balances the books in year whilst running a wildly overspent forecast which has repeatedly led to painful 'adjustments' to balance the books. See Sir Bernard Gray's review of acquisition for chapter and verse, still relevant even though written before the Levene reforms (Gray, 2009).

⁹Identity, Community of Practice and Organisational Paradigm. For those interested in the theory and willing to read a thesis or part of it, see (Galloway, 2024).

SHOULD WE BE BUYING THE BEST OR INVESTING IN CHEAP?

AUTHOR

Sergio Miller is a retired Intelligence Corps officer and the author of a two-volume history of the Vietnam War (*No Wider War/In Good Faith*) and a history of the British Army in Afghanistan from 2001-2014 (*Pride and Fall*).

THE spring edition of *The British Army Review* (#191) featured an article by William 'Wilf' Owen, who has made many valuable contributions to this publication. His latest offering – entitled *Divisional Driver: Mirror, Signal, Manoeuvre* – concluded with a challenge: "Enhancing divisional manoeuvre means knowing what is and is not possible and that what is possible is impossible for the enemy. People might want to consider this and then tell me where this article was wrong or right." This response does not attempt to provide an answer directly, but rather addresses one point – that what is possible is determined by one over-arching factor: money. Indeed, Wilf himself has written on this theme elsewhere, notably in his recent book *Euclid's Army: Preparing Land Forces for Warfare Today*. All the doctrinal debate in the world cannot get round the inconvenient fact that the bank balance matters.

And yet the Service behaves as if this truism is a fairy tale (which this author states with some confidence having joined the Army in 1979 and witnessed almost half a century of 'evolution'). There is an unchallenged notion that everything must be 'the best', which in defence procurement parlance translates as securing 'golden requirements'. This unrealistic demand endures – and has done since the 1990s – despite such golden requirements crippling programmes and having been the root cause of multi-million pound capability mis-steps.

What follows, therefore, is a counterpoint to Wilf's championing of divisional manoeuvre and asks should we be making the first cheap British division of the modern era?

THE 'WORLD-BEATING' DELUSION

Britain has a 'world-beating' epidemic. It would be funny if we were not paying such a high cost for this delusion. Who started it may be debated but that it has become an empty boast is indisputable. How is Britain world-beating? Our social statistics certainly suggest to the contrary: 40 per cent of adults pay no income tax because their annual income does not exceed the £12,570 personal allowance threshold; one third of 35-45 year olds in England now

rent (it was one in ten at the beginning of the century), and four in every ten of the private renters is receiving housing benefit (or they would be on the street); and by the time Universal Credit is fully rolled out, one in four working age households will be receiving it. Furthermore, almost one fifth of Britain's school children are classified as having special educational needs; there are more than one million 16-24 year olds neither in education nor training (the NEETs) and, at



the other end of the scale, Britain's graduates now collectively owe around £240 billion in student loans. I could go on.

How the British Army is 'world-beating' also raises questions. Marlborough's Grand Alliance army at the beginning of the 18th century was bigger, Cromwell had more cavalry regiments and the country that invented the tank can today only deploy and sustain one tank regiment (plainly, there must be a reserve or you would be unable to rotate troops). The British Army is effectively air defenceless and, in one of the most painful sagas of many in recent times, the Army will finally be receiving a new armoured personnel carrier, 20 years late, and with no weapon beyond a machine-gun. Personnel statistics do not make for any happier reading. We can't go on like this and the first thing we must do is face the reality of what the British Army has become and drop the 'world-beating' delusion.

GOOD, BETTER, BEST

In the early 1960s, US Defense Secretary Robert McNamara – America's most talented holder of the post in the second half of the 20th century – coined the phrase "good, better, best" in an interview with *LIFE* magazine. The Ford 'whizz kid' ('human IBM machine' was his other nickname) had been recruited by Kennedy to reform the bloated Department of Defense. He did so, against some opposition.

"Good, better, best" referred to kit. The majority of defence equipment, McNamara argued, just needs to be good. A small proportion needs to be better. And the smallest proportion needs to be 'the best'. The reason was cost. If each of the Services proposed the best kit, every time, the defence budget would be bankrupted.

IS CHEAP BEST?

Or, perhaps, we could shorten McNamara's dictum and simply state cheap is best, most of the time. We were good at cheap. It was the foundation for what today would be called 'success stories'. The Land Rover story, for example, began in 1947 with Rover responding to a War Department requirement for a cheap, Jeep-like utility vehicle. Millions have since rolled off the production line. In contrast, a recently procured patrol vehicle costs more than £1 million per unit (as much as a luxury car of the super-rich). Few have, perhaps understandably, been purchased.

The Combat Vehicle Reconnaissance (Tracked) (CVR(T)) series of vehicles are another example of cheap kit and a 'success story'. They were designed by Alvis in 1967; production started three years later (difficult

to believe today); and by the mid-1990s over 3,500 had been produced and were being fielded by around 20 armies. It is highly unlikely the reconnaissance vehicle currently in procurement will win a single export order, for the unfortunate reason that it is the most expensive reconnaissance vehicle in history (if the reader can point to another, this author would be interested to know).

Similarly, the FV432 series vehicles could not have been simpler or cheaper. Sixty years on the vehicles are still trundling along in the Army (and needed). In other examples, 50,000 cheap Bedford trucks were made – the 'four tonners' that this author hitched rides on when young; and the L118/119 Light Gun (which could not have been simpler or cheaper) was eventually adopted by almost 20 operators, including the US Army.

When we made things, we made them cheap. There was no such thing as 'golden requirements' in the Fighting Vehicles Research and Development Establishment, or at GKN Sankey, or at Vickers-Armstrong, or at Royal Ordnance – all entities, of course, which no longer exist despite the latter having been a part of the history of these islands since the Tudor period.

ATTRITION WARFARE AND THE DEFENCE INDUSTRY

Putin's 'special military operation' has been unquestionably special in turning the legacy Soviet Army and today's Russian Army into an iron mountain of scrap. The numbers are spell-binding. At the time of writing, the 'special operation' has resulted in the loss of more than 21,000 items of equipment – several NATO armies' worth. This includes around 3,850 tanks, 7,700 armoured fighting vehicles and 630 armoured personnel carriers. Over 900 self-propelled guns and 480 multiple launch rocket systems have been lost and almost 100 expensive radar systems have been damaged or destroyed.

How on earth has the Kremlin kept going? It has not done so through production. The only reason why Putin's folly has not collapsed (but we are not far away now) is because of the legacy of vast Soviet-era vehicle and weapon stocks. But as open source analysts like Covert Cabal have pointed out – based on meticulous and painstaking ground counts from satellite imagery – the Soviet cupboard is almost bare. The stocks are close to exhaustion. What then?

This parable should be as concerning to a British Defence Secretary as the moral lesson 'don't start foolish wars'. "We are all Thatcher's children now," Andrew Marr once wrote. This

is not the space to debate Thatcherism but few would argue against the general proposition that she re-made Britain and her shadow is long. One legacy was the decline of Britain's manufacturing base. Thatcherism and the manufacturing sector is a debated subject. Indeed, the steepest decline in manufacturing actually took place during the Blair years (ironically viewed as 'son of Thatcher'). As an *Investment Monitor* article – *Who killed British manufacturing?* – opined: "The list of suspects responsible for the decline of British manufacturing is vast." The fact is it happened and defence firms were especially badly hit. In the case of land defence industries, the experience has been disastrous.

If Britain were embroiled in a major war tomorrow the country would be in the same position as Ukraine in February 2022 – dependent on others for its salvation. British governments did not take a peace dividend following the dissolution of the Soviet Union and end of the Cold War. They disarmed Britain. A Government spokesperson may counter by stating the Ministry of Defence spent £28.8 billion with UK industry and commerce during the 2023/24 financial year. This is true. But the money was not committed to making things and you can't win wars with technical, financial or other business services. You have to make things.

CHEAP IS NECESSARY

Which takes us back to the proposition of the British Army 'investing' in a cheap division. We don't have a choice (as we would be soon apprised if war did break out). Soldiers need bangs and lots of them. And they need kit, also in great quantities.

Recently, the Ministry of Defence made a procurement of around 100 'cutting-edge' drones (like 'world-beating', a phrase as predictable as the rising of the sun). The initial cost of the contract was in the order of £130 million. The Ukrainian and Russian armies are expending around 5,000 drones every day. At such a rate, the British Army's new 'cutting-edge' fleet would last about 30 minutes. Or expressed another way, the Ministry of Defence would have to spend £2.3 trillion on the 'cutting-edge' drone to match attrition and expenditure rates being experienced in a real war on the European continent. This isn't a criticism of that particular drone or the manufacturer. You could itemise most kit in procurement and beg the question: but how would you replace this kit affordably, or at all, at the rates of attrition witnessed in Ukraine?

War's oxygen is money. If we don't find a way to create a cheap division we will suffocate.



**'I WISH THAT I KNEW THEN
WHAT I KNOW NOW'**

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THIS is a note to our former selves; four one-time combat arms unit commanding officers who, since leaving command, have had an opportunity to study the war in Ukraine in detail. Between us, we led units and battlegroups in Army experimentation, on operations in Estonia, training the Ukrainian military, through the full battlegroup collective training pathway (all of us being validated at a combined arms level) and on NATO readiness exercises. What follows are our most focussed observations and lessons from Russia's war in Ukraine which, given our time in command again, we would apply in preparing our soldiers and units for war.

The British Army has an established process to convert insights from the war in Ukraine into lessons for force development. This has been augmented with the addition of the Land Prototype Warfare Team, designed to feed observations directly into the Army's Operating Model. In this note we have tried to focus reflections on what a commanding officer (CO) can do now, were they embarked on the same training journey we went on, over the same training areas, and with no additional capabilities (much needed though they are). This is certainly not an exhaustive list, and many will read like statements of the blindingly obvious, or perhaps seem shrill, but we hope they are made more compelling when presented in the context of our studies of a real war.

AGENCY AND UNDERSTANDING

We wish to make two over-arching points. The first is, although there are challenges and bureaucracy, we all now reflect with conviction that a CO has much agency in what and how they train their soldiers. Second, is that the right change will flow from genuinely understanding how Russia fights now. After 20 years each in the Army, we all thought we knew this well-enough. However, what we have subsequently learnt about our enemy is humbling to the point of professional embarrassment. Tactical handbooks and capability pamphlets do not do justice to Russia's fighting machine. This lack of understanding has been compounded by Western media highlighting Russian tactical ineptitude and casualties (conflating casualties with killed) for Information Operations (IO) effect – we have successfully 'IO'd' ourselves.

Russia will emerge from this war, having learnt the hard way for more than a thousand days, a capable and depraved adversary. They have refined their Tactical Recce Strike Complex¹ to kill their way to victory – ground manoeuvre is subordinated to the power of fires (however inconvenient a truth this may be for our way in war). They have created a networked 'iron

dome' of intense jamming and concentrated air defence to protect their forces. They have re-taught themselves operational art in their combined arms army headquarters. However, it is the capacity of their operational sustainment mechanism that – in a war of attrition – is perhaps their greatest attribute. Detractors beware; you cannot train your units effectively without understanding the machine.

CONCEPTUAL

Train as if your life depends on it (it does).

The truisms that training underpins fighting spirit and that armies exist to fight and win (so when not fighting we must train) look even clearer in hindsight. Training is though a zero-sum game, where there is no ability to continually add more. The British Army's Land Training System must be privileged and resourced over discretionary tasks. The Land Training System is the best vehicle we have now for reducing the latency between what is thought, taught and trained across the full spectrum of military education and collective training. In our experience, COs are uniquely empowered to prioritise, influence and take risk on what they train, and to root it in an understanding of the pacing threat and the data as to what destroys people and platforms. Organisationally, they need more help; there is no getting away from the fact we never have enough time, resources or permissions to train appropriately, let alone innovatively. Doing so requires policies to be reviewed and discretionary Defence and Land tasks to be shed. Within that framework of opportunities and constraints, the rest of this section considers what we would train better and differently if we had our time again.

It is 'what you know'. As COs we simply do not know enough to be able to train effectively for a war against Russia. Fires is one such knowledge gap (amongst a great many others). In the war in Ukraine, first-person view drones do a lot of the killing (and videos amplify their effectiveness), but it is a grinding advance enabled by overwhelming cannon and heavy mortar fire which allows Russian Ground Forces to take and hold ground. It is easy to say we understand that the Russian Ground Forces manoeuvre to fire, but also easy through the lens of combined arms manoeuvre to wish away the counter-battery fight to the next higher echelon or, as COs, to leave it to the battery commander. We will though be outgunned, and there can be no manoeuvre without levelling the playing field. That understanding must underpin fire planning across all capabilities, from the heaviest of artillery systems to the operator flying first-person view drones on a frequency that their trench jammer is not jamming.

¹A system characterised by persistent surveillance drones that cross-cue and correct massed cannon artillery and heavy mortars, augmented by loitering munitions, First Person View and dropper drones, rockets, air, and attack aviation.

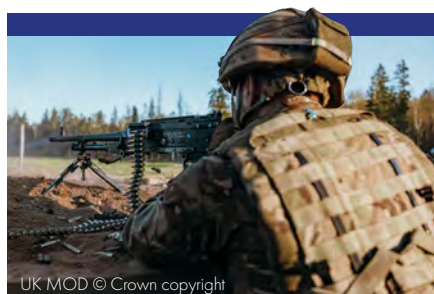
Another gap is protection; units need to survive to fight. Survivability is lethality (covered later) but protection as an input into planning should be more than an after-thought in course of action comparison. We reflect that the staff officers in our HQs did not truly know our formation's electronic warfare capabilities, how those capabilities contribute to the counter-uncrewed air systems framework of detect, identify, track and defeat, or how long it would take (and the totality of the defence stores required) to dig-in an entire battlegroup (not just the forward echelon), with successive and alternate positions, alongside dummy positions. As a CO, if nothing else, we can weight protection more in our planning, drive greater understanding through the staff during theirs, and ensure our operating instructions keep pace with the threat.

Structure your way to new thinking, don't think your way to new structures. The British Army does not have many personnel who have had the opportunity to study in detail the experiences of the Ukrainian Army in its fight with Russia. There are gaps in both the types of specialists needed and the technical skills required of current personnel. Uncrewed air vehicles, electronic warfare, air defence, communications and casualty management are some critical gaps in current understanding. With the benefit of 20:20 hindsight, we should have done more to seek out those specialists that do exist, and to advance the conceptual development of our units in these areas, even if constrained in the physical application of their knowledge. The Ukrainian Army's relative shortage of soldiers and materiel has forced it to innovate – a mind-set a CO can nurture without much resource. There will be soldiers in every unit who have the attributes and perhaps skills already to deliver exponential value in the areas currently lacking. A bold CO can privilege them by restructuring internally and waiting for workforce structures to catch-up. An infantry battalion, for example, should have sections in each company that can fly first-person view drones and 'droppers', and soldiers in each section who can operate and understand tactical jammers. As ever, the Army Reserve may prove fertile ground for growing some of these experts, and it is in a CO's power to find and forge those links.

Exploiting commanding officers. We have looked back and questioned whether we stopped, read, thought and then educated our units enough about the threat Russia poses. This is not about the armoured fighting vehicle recognition or differentiation between reconnaissance patrols and vanguards upon which we were weaned. As COs, it is all too



“The paradox of this current character of conflict is the urgent need to upskill our soldiers to achieve the high levels of technical proficiency demanded by the proliferation of drones and ruthless competition in the electromagnetic spectrum, while at the same time preparing for the grisly, grinding, vicious and soul-sapping endurance demanded by trench and urban warfare at scale. The answer is both, and the trick is striking the most appropriate balance.”



easy just to 'do' all the time. Alongside better integrating and empowering specialists, one tool COs do have at their disposal is lesson and mission exploitation. The British Army's Land Exploitation Centre produces a wealth of information, and much more is available on open source. Absent the spoon-feeding on a regular cadence of mission exploitation symposia we grew up with during the Iraq and Afghanistan missions, as COs we would have made the time to lead this, within our units, ourselves.

Reasonable risk. The Army will need to tolerate greater risk if we are to train more,

²ALARP is a common term in the British Army's risk management lexicon.

and harder, to face the current threat. The Army's approach to risk management does not identify what risks are being generated in the future by not undertaking an activity now. This requires specific focus by those identifying risks and holding them – often the CO. Each training activity risk should be balanced with the risk of not conducting it (the opportunity lost) thereby transferring generating greater risk into the future (onto operations). Of course, that is easy to say as COs who managed to 'survive' their tenure as risk holders; but it is our experience that the chain of command will almost always support COs who make sound judgements for the right reason in pursuit of getting their soldiers realistically ready to fight Russia. It is not a call for profligacy in the safety of soldiers; it is about resetting the 'Reasonably' in the As Low As Reasonably Practicable (ALARP)² assessment of risk against the current threat. The 'R' is in the eye of the beholder. It is in a CO's gift to have these conversations with their brigade commanders rather than self-censuring.

PHYSICAL

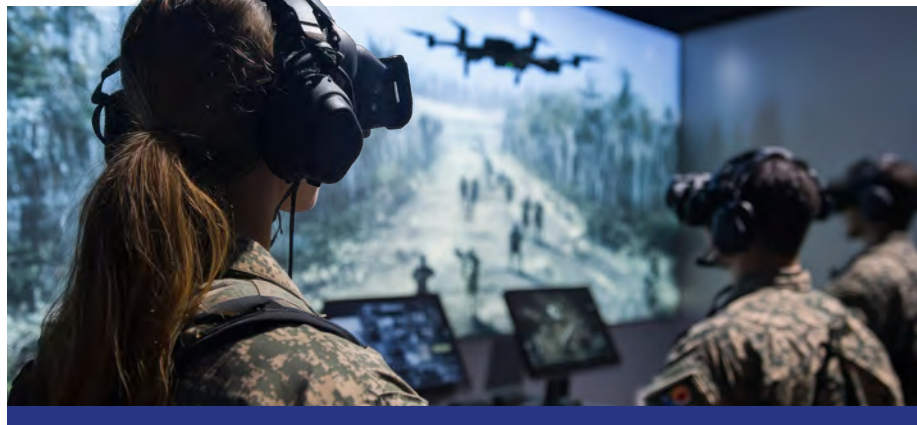
Preparation paradox. This section considers how we would train better and differently. But it is hard yards for a CO. The paradox of this current character of conflict is the urgent need to upskill our soldiers to achieve the high levels of technical proficiency demanded by the proliferation of drones and ruthless competition in the electromagnetic spectrum, while at the same time preparing for the grisly, grinding, vicious and soul-sapping endurance demanded by trench and urban warfare at scale. The answer is both, and the trick is striking the most appropriate balance.

Survivability is lethality. We were guilty of thinking deception was just too difficult at the tactical level in the third decade of the 21st century but have been proven entirely wrong. Deception is an essential component of protection. Dummy positions (perhaps three for each 'real' position) should be incorporated into engineer works plans and resourced with equipment and a pattern of life. From HQs (down to company level) to ammunition dumps to trenches – if you are not dug in, you are dead. Tents have no place on the battlefield, nor do soft crew shelters. Troops need to be away from vehicles unless operating them. We would recapitalise our assault pioneers and support troopers in a heartbeat. We must stop using ponchos and walls of twigs to hide behind. We can ensure section and crew commanders know how to build trench systems (with more acute angles to prevent first-person view drones flying down them), bunkers, anti-tank ditches (deep enough to prevent them being used as avenues of approach and firing

positions by the enemy), and obstacles from scavenged or locally purchased materials and timber. Increasing our all-arms understanding of demolitions (beyond explosive entry in urban exercises) and anti-tank mines and their emplacement (an Armed Forces of Ukraine company will typically carry 100 – even in the offence to rapidly seed to protect from counter-attack) should be an extension (or a counterpoint) to our countering-explosive ordnance training requirements. Entrenching tools must be on everyone's belt kit and shovels strapped to everyone's packs.

In defence of defence. Our observation is that defence is the superior form of warfare. However, we are all clear defence is insufficiently weighted through our training pathways, from initial through trade to collective training. The detractors' view – 'we wouldn't fight Russia the way the Ukrainians are' – is professionally negligent, blind to the fact Russia has busied itself perfecting a way of fighting that is optimised to target our critical vulnerabilities: high casualties and political endurance. Defensive activity is not simply about protecting and holding ground; it is a fight, with as many complexities as an opposed obstacle crossing, and can be decisive. We must undertake more training of the defence, to be as good at it as we aspire to be in the offence. Long hours digging in – everything – and living underground, while being pummelled by indirect fires and first-person view drones, and attacked by wave-after-wave of assault and entrenchment groups, is the requirement. Collective training should include the opportunity for all echelons to defend themselves. In the defence, units should rehearse resupply, casualty evacuation, localised counter-attacks, reliefs in place and withdrawals, under pressure, to secondary and alternate positions.

Flip the opposing forces (OPFOR). The OPFOR we fought in training is symptomatic of an outdated understanding of 'how Russia fights' (which is more akin to 'how we would like Russia to fight'). We would be flipping the exercising troops and OPFOR: a platoon defence exercise should have a company as OPFOR (a ratio of 1:3). This would go some way to generating the mass of the enemy that needs to be defended against. We must look at ways to replicate, more accurately, fires on exercise; however many simulated explosives you think you need, times it by ten. The electronic beeping of a vest to simulate fires on an exercise is not good enough; the devastating psychological effects of fires needs



"Would-be Armed Forces of Ukraine unmanned aerial systems pilots under training... will spend hours and days flying virtually, using commercially available gaming laptops and software, controllers and goggles, all available for less than £2,000. Only when a pilot is entirely proficient virtually, will they be allowed to fly a drone for real. As COs we would have procured a number of these systems for our units, trained our best soldiers on them, and kept them current."

closer simulation. For an enemy that kills its way to victory with fires, and then uses ground manoeuvre to advance its guns, Task Force Hannibal³ can lead this change, but COs own their own OPFOR below battalion-level collective training.

Train what kills. If you want to increase lethality (and your survivability as part of this) focus on what kills. The data from the war in Ukraine is compelling. First-person view drones, grenades dropped from droppers, artillery and mines account for the overwhelming majority of equipment and personnel casualties. Direct fires, either from small arms, support weapons or turret systems contribute a vanishingly small amount to lethality (single digit percentages). The Armed Forces of Ukraine's practice is to stand-off and kill (with mortars, mines and drones), rather than risk embroilment (and casualties) in an overwhelming direct fires fight. This is something that a small(er) army like ours must ape. However, small arms are cheap, easy and imbue an element of professional pride. Yet, in a zero-sum training context, is time on the range (annual marksmanship training and tests through to shooting competitions) time well-spent? We all decried lack of range time, but how good is 'good enough'? How might we use our hours and minutes to conduct more training that genuinely enhances lethality (and survivability). We would privilege this training by selecting our very best soldiers to instruct on drones and digging at the expense of armoured gunnery and small arms instructors.

Virtually as good. As COs we all wailed about the restrictions of the Military Aviation Authority when it came to our ability to train our small

drone teams; we failed to fully appreciate the role of virtual training when it comes to uncrewed air systems operators. Would-be Armed Forces of Ukraine unmanned aerial systems pilots under training (some of their best soldiers) will first learn to build an unmanned aerial system. They will then spend hours and days flying virtually, using commercially available gaming laptops and software, controllers and goggles, all available for less than £2,000. The software can incorporate the effects of weather and jamming. Only when a pilot is entirely proficient virtually, will they be allowed to fly a drone for real. Skill fade is considerable. As COs we would have procured a number of these systems for our units (from public and non-public funds – the Armed Forces of Ukraine rely heavily on charitable donations and direct subscriptions to fund capabilities), trained our best soldiers on them, and kept them current.

Dead ground. The battlefield is more transparent than any of us really understood. We should assume persistent operational surveillance by Russian platforms which will fly with impunity beyond the effective range of jamming, and be replaced in a heartbeat by a second, third and fourth platform if struck by air defence or counter-uncrewed air systems interceptors. That, allied with signals intelligence and ground surveillance radars, leaves nowhere to hide and no time to speak. We must entirely recast our understanding of 'dead ground' – it has now become literally that. Meteorology should drive the manoeuvre synchronisation matrix – it cannot be given the lip-service we paid it during our initial planning. Thermal cross-over (where drones

³Hannibal is the name of the British Army's professional OPFOR capability, designed to test exercising troops in combat and mission ready training

are required to flick between cameras)⁴ offers opportunities to exploit and, in winter, fog blinds, precipitation degrades components and wind impacts fixed wing surveillance capabilities. Protection from above is the primary place that matters. Air sentries – listening as much as looking for the all-too-familiar buzz of a drone – are as, if not more, important than ground sentries. Thermal and visual camouflage and overhead protection are a must. In the urban setting, fishing nets which catch first-person view drones are as essential as ladders and barricades.

Dispersion is not just a critical requirement for enabling activities; whenever we mass, even for the offence, we will attract enemy fires. We would explore – as the Russian Ground Forces and the Armed Forces of Ukraine have done so well – fighting as smaller combined arms groupings (platoon or troop-sized groups) that might (just) sit below a targeting threshold.

Real hard fun. So, how can we actually train differently? It is easy to say now, but we should have challenged ourselves and our subordinate commanders to do more and harder with what is available. There will not be enough ammunition, technology or time, and we can cry helplessness and wait, or work with what we have got. It is in a CO's power to: extend exercises; dig – all the time; invert the friendly to enemy ratio to 1:3; switch off GPS; jam communications; treble the number of exercise casualties inflicted; treble their casualty evacuation complexity; and to move only during thermal cross-over (or night... at a push). It will be exhausting; if not it is probably not hard enough. We have not forgotten that COs are also in the 'entertainment industry'. Making training fun and 'retention positive', whilst matching the 'realism' required, will be another difficult balance to strike.

Mind your own business. The electromagnetic spectrum is your business and can no longer be the sole preserve of communication and information systems specialists. We acknowledge the constraints of our training estate, as much as our lack of equipment (spectral analysers, jammers and visualisation tools). We lament the loss of BATUS [British Army Training Unit Suffield],⁵ which outside Fort Irwin might have been the best place to fight a more realistic electromagnetic spectrum battle. At unit level though, it starts with educating our soldiers to understand the electromagnetic spectrum environment as well as they understand the physical, and on how to mitigate its threats and exploit its opportunities. Get your smartest people to learn and then instruct the others now; the system will catch-up in time. Though we cannot currently execute much of this, we can still



Shock and gore: Volodymyr Zelensky during a visit to the Ukrainian city of Bucha, where mass killings of civilians took place during its occupation by Russian troops.

"The Russian Ground Forces have proven themselves to not abide by the rules of war we teach our soldiers in training. At little cost in time and money, we wished we had talked more on, and viscerally illustrated better, the realities of war, killing and death."

plan for and simulate it; as COs, direct your team to do so (notably the intelligence officer, the battlegroup engineer and communication and information systems officer). In planning, the electromagnetic spectrum overlay is as important as the physical terrain overlay in building 'situation integration'. It will give you mobility corridors and generate areas of interest and targets for your decision support overlays and matrices, and electronic mission planning tools can produce an electromagnetic spectrum 'intervisibility trace'. Ask your team for assessed locations of enemy jammers, the decibel power output of these systems and the resistance of your communications, sensors and effectors to them. This will tell you where you can find and strike, and where you cannot. Your communication and information systems platoon is now another reconnaissance troop.

MORAL

Resilience – a matter of life and death. It might not be universal, but certainly in our experience as COs, the physical resilience of our soldiers degraded quickly the moment a final exercise ticked-over the neat two-week block of the Land Training System; along with their mental resilience as soon as we imposed (and enforced) no use of personal electronic devices. On the physical side, this article has considered some of the things we can do to better train-in the grit and toughness required

of soldiers, but that is underpinned by also setting a higher bar for mental resilience training. War with Russia will not last a matter of weeks, nor will it be six months with a period of recuperation in the middle. The Russian Ground Forces have proven themselves to not abide by the rules of war we teach our soldiers in training. Here, again, we think we have agency as COs; preparing our soldiers for separation and uncertainty is a basic function of readiness. At little cost in time and money, we wished we had talked more on, and viscerally illustrated better, the realities of war, killing and death. Real material from Ukraine's war must be incorporated into our learning. We can then explore the boundary of battle inoculation and where it begins to impact the moral fragility of our soldiers and practice our people in delivering the moral leadership and aftercare which will sustain them in combat.

CONCLUSION

Seeing is believing. It is hardly a startling conclusion that, from our experience studying Russia's war in Ukraine, we would reflect it all comes down to training more, harder, against the most realistic threat. For the most part, the units we commanded would not have been effective fighting forces, measured against the character of this conflict. We think we are right not to have painted a rosy picture; it would be delusional and dishonest to have done so. But we have tried to identify some things a CO can do now, within current constraints. Something else a CO can do is to speak to the Ukrainians yourself or send as many of your soldiers and officers to train alongside them as possible. The lethality and survivability of our Army should come to owe much to the knowledge they will provide us, as our forebears have done from previous wars. Another important facet is to keep the faith.

The Ukrainian Army, more than 1,000 days into their existential war, with limited human capital and resource, has achieved huge feats of adaptation and innovation fuelled by the white heat of fierce combat. That 1,000 days is roughly the same amount of time we enjoy as COs commanding our units and trying to make a difference. One thing common to all our experiences was having soldiers who desperately want to operate differently and better, and who are willing to learn. Empowering them to do that is the privilege and power of being a CO. We owe it to them to prepare them to do their jobs cometh the hour.

⁴Electro-optical, image intensifiers, and thermal imagery.

⁵The British Army's former large-scale training exercise location in Canada.



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OPERATION Bagration, launched in Belorussia on 22 June 1944, was one of the largest Soviet offensives of the Second World War. Largely neglected in the West as it coincided with the Battle of Normandy, by its conclusion, on 19 August, 28 divisions of the German Army Group Centre had been destroyed, 450,000 Germans had become casualties, and the Red Army had reclaimed virtually all of its pre-war territory and was at the gates of Warsaw.

The Eastern Front of the Second World War is often regarded in the West as something incomprehensibly vast, fought with a violence and intensity that is difficult to contemplate in Europe in 2025. Nevertheless, warfare of this type is now being fought in modern Europe, in almost the same locations. The Eastern Front, especially its largest offensive, therefore merits renewed study. Bagration saw the concepts of deep battle and military deception – the notorious *maskirovka* – used to their full extent for the first time. Bagration is therefore key in understanding Soviet and Russian concepts of deception, which remains a core element of Russian military operations, and one of the reasons why parts of its terrain were walked by senior military leaders during the Chief of the General Staff's recent Staff Ride to Poland.

For those who did not accompany General Sir Roly Walker east, this article will provide an historic analysis of military deception during the operation and offer lessons as to how it is likely to be employed in modern missions.

SOVIET CONCEPT OF DECEPTION

Maskirovka – much like *Blitzkrieg* or *Auftragstaktik* – is one of those foreign military terms that routinely goes untranslated in Western works. It is as if its italics hide some inscrutable wisdom that is beyond the ken of Western minds.¹ The truth is rather more mundane: *maskirovka* literally translates to 'disguise' in Russian, and the Red Army's 1944 Field Regulations on the subject of deception are rather banal in their construction: "Surprise dumbfounds the enemy, paralyses his will, and deprives him of an opportunity to offer organised resistance. Surprise is achieved:

- By leading the enemy astray and by keeping the plan of upcoming actions in strictest secrecy.

- By the concealment and swift regrouping of forces and of the concentration of overwhelming forces and weapons in the decisive locations.

- By the surprise attack of aircraft, cavalry, and motorised tank units. 4. By the surprise opening of annihilating fires in the beginning of swift attacks."²

These regulations are somewhat tautological, but when compared to modern NATO principles of deception, there is much that is familiar. Deception is defined by NATO as those measures designed to mislead the enemy by manipulation, distortion or falsification of evidence to induce him to react in a manner prejudicial to his interests. It is complementary to operations security, which seeks to deny

¹The author has occasionally wondered whether "Mission Command" and "Manoeuvrist Approach" are left similarly untranslated and italicised in Russian, Chinese or Iranian military works.

²Dimbleby, Jonathan, *Endgame 1944: How Stalin Won the War* (Milton Keynes: Viking, 2024), p. 53.

³NATO, *Allied Joint Publication 10.1 – Allied Joint Doctrine for Information Operations, Edition A, Version 1*, January 2023, pp. 35–36.

⁴NATO, *Allied Joint Publication 3.10.2 – Allied Joint Doctrine for Operations Security and Deception, Edition A, Version 2*, March 2020, pp. 6–7.

the enemy knowledge of the dispositions, capabilities and intentions of friendly forces.³ If operations security denies information to the enemy, deception seeks to fill that void with information tailored for his consumption. To succeed, deception must:⁴

■ **Create a behavioural response.** Deception must focus on creating a desired behaviour. This behavioural outcome must meet the commander's intent.

■ **Reinforce existing beliefs.** It is important to understand what the adversary is predisposed to believe (including how they expect friendly forces to act) and what they are predisposed to disbelieve. It is easier to reinforce a belief than to change it and difficult to convince them of something they would ordinarily reject.

■ **Target the decision-maker.** Deception targets the decision-maker. The targeted decision-maker must be able to detect deceptive events, process them and subsequently act upon them. The decision-maker may be at the tactical, operational, or strategic level.

■ **Be credible, consistent, verifiable and executable.** Deception must be credible and believable in the minds of the enemy; consistent with the narrative of the operation and with the strategic communications framework; verifiable by their collection assets in the time required; verifiable by friendly forces' collection assets; and executable in terms of the actions required over the time period available to do so.

■ **Take multiple approaches.** Creating effects through joint action (the combined application of the joint functions of manoeuvre, fires, information, and civil-military cooperation) will ensure an integrated approach. The greater the number of channels used, the greater the likelihood of the deception being perceived as credible.

³Dimbleby, 2024, p. 53.

⁶Overy, Richard, *Blood and Ruins: The Great Imperial War, 1931-1945* (London: Allen Lane, 2021), pp. 516-8.

⁷Modern Lviv: at the time the Germans had renamed the city to its historic Austro-Hungarian name of Lemberg.

⁸Buttar, Prit, *Bagration 1944: The Great Soviet Offensive* (Oxford: Osprey, 2025), pp. 48-51.

⁹Kirchubel, Robert, *Atlas of the Eastern Front: 1941-45* (Oxford: Osprey, 2016), pp. 194-5.

¹⁰Buttar, 2025, pp. 42-4.

¹¹Kershaw, Ian, *The End: Germany 1944-45* (London: Penguin Books, 2012), p. 96.

■ **Conceal the real and reveal the false.** Draw attention away from real dispositions and intentions, while simultaneously attracting attention to false intentions. Alternatives require the adversary to evaluate them.

The 1944 Field Regulations show a clear understanding of the importance of operations security, of 'concealing the real and revealing the false' and the necessity of multiple approaches to support a deception. The regulations further outlined the importance of concealment, decoys, false rumours, radio deception and artificial noise.⁵ Deception had already been implemented with great success during the Moscow, Stalingrad and Kursk counter-offensives, and by 1942 each operational headquarters had a dedicated deception staff. Under the 1944 Field Regulations, deception and concealment were to be considered "mandatory forms of combat support for each action and operation".⁶

This article will examine the Operation Bagration deception plan using the six NATO principles as an analysis framework. In an effort to demystify Soviet military deception, it will not use the term *maskirovka*, and will show that, while grand in scope, Soviet military deception was not substantially different to what was being implemented concurrently by the British and Americans in Operation Bodyguard to support the Normandy landings.

CREATE A BEHAVIOURAL RESPONSE

The ultimate aim of a deception operation must be to make the enemy do something. Only when the behavioural response has been decided can planners consider what the enemy should think, and therefore what he needs to see to support a deception plan.



Operational inspiration: A monument to Georgian Prince Pyotr Bagration, a general of the Imperial Russian Army who died fighting Napoleon at Borodino in 1812.

Quite apart from the fact that deception should be a key element of all large-scale combat operations, it was especially necessary for Operation Bagration because the Red Army had assessed that Belorussia was the only reasonable site for an offensive in the summer of 1944: following the success of the Dnieper-Carpathian offensive of December 1943-April 1944, which had reclaimed almost the entirety of Ukraine, the Germans had substantially reinforced the Kovel-Lvov⁷ area of western Ukraine to forestall any further advances on this axis. The first Jassy-Kishinev offensive of April-June 1944, the Red Army's initial attempt to invade Romania out of Ukraine, had failed, and the Germans and Romanians had also heavily reinforced the area. An offensive into the Baltic States was also rejected as the terrain was assessed to be too congested and canalised by forests, rivers and swamps.⁸

Belorussia was therefore the 'safest' option for a major summer offensive. The attacking formations would begin by encircling the cities of Vitebsk, Orsha, Mogilev and Bobruisk, before advancing west along the high ground between the headwaters of the Dvina and Dnieper rivers.⁹ The behavioural response sought by the deception plan was therefore to fix German reserves in western Ukraine and the Baltic States, denying Army Group Centre in Belorussia any reinforcements. Of particular concern were Germany's armoured reserves, which even at this stage of the war were capable of inventive and decisive counter-attacks: German infantry divisions were undermanned and largely immobile while in defensive positions, and if this defensive crust could be broken, the armoured reserve would be expected to restore the situation. Dislocating German reserves to ease the advance was a key concern of the deception operation.¹⁰

REINFORCE EXISTING BELIEFS

The deception plan reinforced the German belief that the Red Army's main effort would be in the Kovel-Lvov area of Ukraine: the steppe offered few defensive barriers, and an offensive there would build on Soviet successes in the spring of 1944, which had reclaimed almost the entirety of Ukraine. A successful offensive in the Kovel-Lvov area would break into Poland, threaten to unhinge Army Group Centre from the south, and present the Germans with the nightmare scenario of a concentrated thrust from southern Poland, through Warsaw, and on to the Baltic coast. This would cut off both Army Group Centre and Army Group North, and leave the road into Germany defenceless.¹¹

Such an offensive was almost certainly beyond Soviet capabilities, but this

assessment reflected German beliefs that the southern axis of the Eastern Front would be the Soviet main effort for the summer of 1944. In this, the Germans deceived themselves by focusing on what they could do rather than what they needed to do. The configuration of the railway network was such that it was comparatively easy for the Germans to reinforce western Ukraine. Furthermore, despite the failure of the first Jassy-Kishinev offensive, the Germans remained concerned about a renewed Soviet offensive into Romania out of south-western Ukraine. This would threaten German access to the Ploesti oil fields, but the region's rail links similarly permitted rapid reinforcement.¹² An offensive in Belorussia, by contrast, would be canalised by the heavily forested terrain and divided by the Pripet Marshes, which the Germans considered to be impassable.¹³ On 14 June, eight days before the launch of Bagration, Fremde Heere Ost¹⁴ (FHO) assessed that any attacks on Army Group Centre and South Ukraine would only be preliminaries to the main effort, an attack out of Kovel-Lvov against Army Group North Ukraine.¹⁵

TARGET THE DECISION-MAKER

The Bagration deception plan targeted a dysfunctional German decision-making process where the hand of Adolf Hitler had never been heavier. Hitler was the key German decision-maker at the strategic, operational and even the tactical level. A successful Ukrainian offensive, FHO assessed, would lay the groundwork for a



“Field Marshal Ernst Busch, compounded German unpreparedness. Busch was a weak-willed personality who was disinclined to argue with Hitler and accepted intelligence assessments without question... Even as his divisional commanders reported seeing Soviet offensive preparations, Busch was content to accept FHO’s assessments that this was a deception. On 19 June, with Operation Bagration imminent, he went on leave.”

new offensive into Romania and the Balkans, which appealed to Hitler’s obsession with strategic resources.¹⁶ The Ploesti oil fields in Romania alone accounted for 30 per cent of Germany’s oil supply.¹⁷ Furthermore, even at this late stage of the war, Hitler remained convinced of the value of bold offensive action: if the Soviets attacked in Ukraine, he believed, Army Group Centre could strike south out of the “Belorussian Balcony” and cut the Red Army off.¹⁸

Army Group Centre’s commander, Field Marshal Ernst Busch, compounded German unpreparedness. Busch was a weak-willed personality who was disinclined to argue with Hitler and accepted intelligence assessments without question. He did not oppose the transfer of LVI Panzer Corps to Army Group North Ukraine, after the more forceful Field Marshal Walter Model floated the idea of a spoiling attack against the Soviets’ presumed drive on Lvov. This decision – a dramatic testament to the success of the Soviet deception – deprived Army Group Centre of

15 per cent of its divisions, 88 per cent of its tanks, 23 per cent of its assault guns, 50 per cent of its tank destroyers, and 33 per cent of its heavy artillery. Even as his divisional commanders reported seeing Soviet offensive preparations, Busch was content to accept FHO’s assessments that this was a deception.¹⁹ On 19 June, with Operation Bagration imminent, he went on leave.²⁰

BE CREDIBLE, CONSISTENT, VERIFIABLE AND EXECUTABLE

The credibility of the Soviet deception was enhanced because it built on what had already been achieved in 1944, the reclamation of much of Ukraine. Furthermore, if the possibility of a renewed Soviet offensive in Belorussia seemed low to the Germans, it was because they had already defeated one. Bagration was in fact the second Soviet attempt to regain Belorussia in 1944: the Belorussian strategic offensive of spring 1944 is one of the ‘forgotten battles’ of Soviet historiography, ignored in later accounts of the war because it achieved little except horrific casualties. In an effort to retake Vitebsk, the Soviet Western Front suffered 236,000 casualties in the first three months of 1944, and achieved virtually nothing.²¹ It therefore seemed credible to the Germans that the Soviets would abandon this axis and reinforce offensive success in Ukraine.

The Soviet deception was aided by the collapse in German intelligence. Fremde Heere Ost was dependent on scraps of information that it could no longer independently verify or analyse rationally. FHO’s chief was the incompetent Colonel Reinhard Gehlen, who was better known for his political skills than his spycraft. Gehlen had the bluffer’s trick of offering a number of possibilities for enemy action while not committing to any firm conclusion, then claiming with hindsight that he had predicted the enemy’s movements. He failed to foresee Soviet counter-offensives at Stalingrad in 1942, at Kursk in 1943, and into the Crimea in 1944. Signals intelligence and aerial reconnaissance became less viable as Soviet discipline and airpower improved. Gehlen’s plausibility was enhanced by high-quality reports he continued to receive from spies supposedly inside the Kremlin itself, but it is now known that these were in fact double agents being run by the NKVD in an operation codenamed Monastery and led by the legendary Soviet spy Pavel Sudoplatov.²² It is strongly suspected that Operation Monastery deliberately leaked the details of Operation Mars – the Soviet attempt to reclaim Rzhev in winter 1942 – to draw German reserves away from the concurrent counter-offensive at Stalingrad.²³ In the absence of any other

¹²Buttar, 2025, pp. 48-9.

¹³Tucker-Jones, Anthony, *Stalin’s Revenge: Operation Bagration and the Annihilation of Army Group Centre* (Barnsley: Pen and Sword, 2009), p. 23.

¹⁴Foreign Armies East, the military intelligence department of German Army High Command, focused on Eastern Europe and the Soviet Union.

¹⁵Buttar, 2025, p. 133.

¹⁶Dimbleby, 2024, p. 221.

¹⁷Buttar, 2025, p. 42.

¹⁸Tucker-Jones, 2009, p. 23.

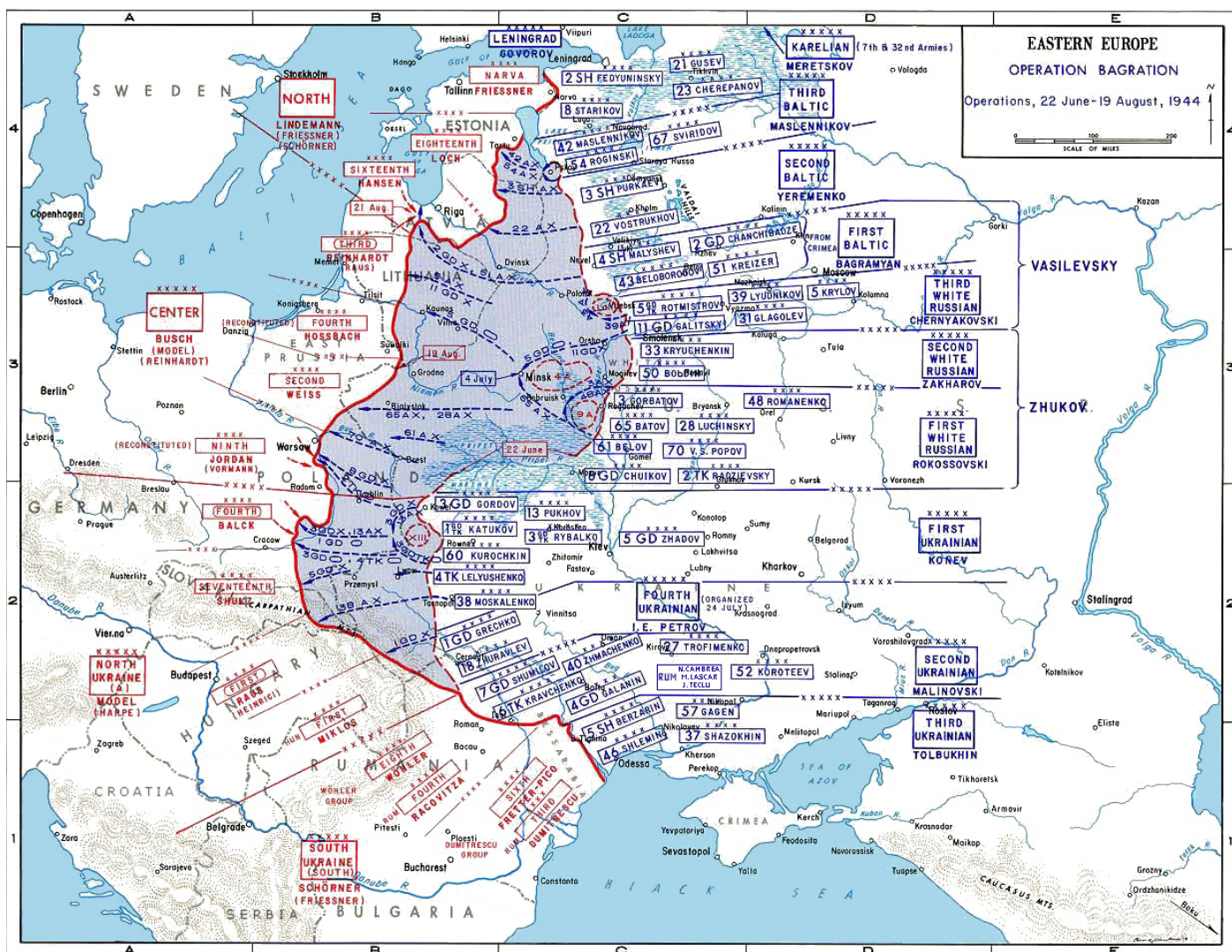
¹⁹Dimbleby, 2024, pp. 221-3.

²⁰Tucker-Jones, 2009, p. 28.

²¹Dimbleby, 2024, pp. 117-20.

²²Sudoplatov had made his name with the successful assassinations of the Ukrainian nationalist Yevhen Konovalets in Rotterdam in 1938, and of Leon Trotsky in Mexico in 1940. He was later involved in the infiltration of the Manhattan Project.

²³Hastings, Max, *The Secret War: Spies, Codes and Guerillas, 1939-1945* (London: William Collins, 2015), pp. 224-38.



intelligence sources, Gehlen was easily fooled by Sudoplatov's double agents.²⁴

TAKE MULTIPLE APPROACHES

Mass was critical to the credibility of the deception, and the immense scale of the Soviet war machine allowed for a huge number of deceptive approaches: in May and June the commanders of the 3rd Ukrainian and 3rd Baltic Fronts were ordered to begin offensive preparations.²⁵ This included the establishment of decoy tank and artillery parks and airfields, which were to be defended by real anti-aircraft guns and fighter patrols. Fake roads and crossing points were established. The vast size of the Red Army meant that it was able to detach parties of men carrying torches to walk back and forth along the routes from mock assembly areas at night, simulating troop movements to be spotted by German reconnaissance aircraft.²⁶ In one instance, a division marched along the same stretch of road for ten nights to create the impression that ten divisions had been built up. Empty troop trains were sent to the 3rd Ukrainian Front in the night, then returned east in daylight: the Germans, knowing that the Soviets moved troops under cover of darkness wherever

possible, assumed that they were returning having delivered reinforcements.²⁷

Obedient to the Field Regulations' injunction on the importance of surprise attacks, engineers bridged the northern end of the Pripyet Marshes with concealed causeways.²⁸ These allowed the 1st Guards Tank Corps of the 1st Belorussian Front to break directly into the German operational depths and form the southern pincer of the encirclement of Bobruisk. Already reacting to the westward attack of the 9th Tank Corps, the German 20th Panzer Division was pulled in two different directions as it struggled to respond to penetrations from the south and east.²⁹ Bobruisk would be recaptured by the Red Army on 29 June. The 20th Panzer Division, the only mobile reserve available to confront the 1st Belorussian Front, was almost completely destroyed in only seven days of fighting.³⁰ Much as how inflatable tanks and dummy landing craft are part of the story of D-Day in the West, the advance through the swamps to outflank the Germans has become part of the story the Russians tell about Bagration.³¹

FHO's reliance on double agents also allowed the NKVD to indulge in the sort of tricks that

are the defining stories of Second World War deception. At the direction of Stalin himself, Sudoplatov and the Operation Monastery team devised a new deception operation codenamed Berezino: Monastery's double agents reported to Gehlen that a German brigade commanded by Lieutenant Colonel Heinrich Scherhorn (a real officer who had been taken prisoner) was trapped behind Soviet lines and was trying to fight its way

²⁴Gehlen would found West Germany's intelligence service in 1956. The extent to which he had been duped would not become clear until the publication of Sudoplatov's memoirs in 1994, fifteen years after Gehlen's death and three years after the fall of the Soviet Union.

²⁵Tucker-Jones, 2009, pp. 6-7.

²⁶Dimbleby, 2024, pp. 214-6.

²⁷Buttar, 2025, p. 99.

²⁸Overy, 2021, pp. 518-9.

²⁹Buttar, 2025, pp. 187-90.

³⁰Kirchubel, 2016, pp. 194-7.

³¹Ash, Lucy, 'How Russia Outfoxes its Enemies', BBC News, 29 January 2015, <bbc.co.uk/news/magazine-31020283>, accessed on 10 April 2025.

west. Gehlen duly devised schemes to rescue this trapped force. As Operation Bagration developed and the Germans were forced to retreat, irreplaceable transport aircraft were sent to parachute supplies and radio equipment to the non-existent Gruppe Scherhorn.³² Thirty-nine missions were ultimately flown. Amazingly, FHO remained in radio contact with this entirely fake force until 5 May 1945, three days before the German surrender.³³

CONCEAL THE REAL AND REVEAL THE FALSE

As the 3rd Ukrainian and 3rd Baltic Fronts 'revealed the false', the 1st Baltic and 1st, 2nd and 3rd Belorussian Fronts on the Bagration axis 'concealed the real'. This involved obscuring the redeployment of nine armies, 11 corps of tanks, armour and cavalry, 10,000 guns, 300,000 tons of fuel, and half-a-million cans of rations. The three Belorussian fronts were ordered to maintain a 'normal' pattern of life, firing as usual and sustaining regular traffic. Their reinforcements for the offensive were moved into position only at night. Their personnel were forbidden to join reconnaissance patrols in case they were captured, and were told nothing of what was planned.³⁴ Planning documents were restricted to a small number of staff officers, and only five men, including Stalin himself, were aware of the full extent of the operation.³⁵

The massive influx of men and materiel was concealed by moving it by rail under cover of darkness. The trains then returned south in broad daylight loaded with decoy tanks and guns, in full view of German reconnaissance aircraft, to maintain the impression that the Kovel-Lvov axis was still the main effort.³⁶ Elements that had become part of units' patterns of life – and therefore combat indicators to the Germans – were now utterly prohibited. Artillery batteries were forbidden to conduct registration fire. Instead, occasional shelling would be maintained along the entire length of the front to allow new gun batteries to range in under cover of this bombardment. Newly-arrived units were even forbidden to conduct radio checks. Finally, the massive expansion of the Soviet air industry now allowed the Soviet Air Force to contest air superiority along the entire front, allowing them to deny Luftwaffe reconnaissance flights except where they wanted the Germans to see.³⁷

"The supposedly-decisive Russian deception of 2014 – 'Little Green Men' in unmarked uniforms, supported by army trucks painted white as a 'humanitarian convoy' to seize Crimea and the Donbas – succeeded because Ukrainian state control had collapsed in these areas, and because the West did not want to believe that Russia would invade."

The Bagration deception plan was so comprehensive that FHO completely misread the laydown of Soviet forces: their assessed number of tanks facing Army Group Centre ranged from 400 to 1,800. In truth, more than 4,000 armoured vehicles had been massed for the offensive. In an astonishing oversight, German intelligence detected the presence of the commander of the 5th Guards Tank Army, Marshal Rotmistrov, near Smolensk, but did not deduce that his command might also be in the area. It was still assessed to be in Ukraine.³⁸ The Soviet deception plan, though enormous in scope, made use of familiar methods, and was assisted by German self-deception.

CONCLUSION

Military deception has become part of the story told about the Red Army of the Second World War, and of the modern Russian military. There remains the perception that Russian military deception is something strange and exotic, something that cannot be practiced by Western democracies and will be difficult, nigh-impossible, to combat. In fact, as this article has shown, the great Soviet deceptions of the Second World War used methods that would have been familiar to the concurrent Operation Bodyguard deception to support the Battle of Normandy: strict operations security, dummy formations, extensive use of double agents and, above all, convincing the enemy that its pre-existing beliefs were correct.

These methods should be understood by modern deception planners. We should both practice deception and expect to be deceived, but equally we should not allow ourselves to be terrified by a supposed Russian genius

for deception. The Bagration deception succeeded because it fell on fertile ground. Similarly, the supposedly-decisive Russian deception of 2014 – 'Little Green Men' in unmarked uniforms, supported by army trucks painted white as a 'humanitarian convoy' to seize Crimea and the Donbas – succeeded because Ukrainian state control had collapsed in these areas, and because the West did not want to believe that Russia would invade.³⁹ Such a ruse will not work against alert troops in a NATO country, for whom the appropriate response to the appearance of armed men who refuse to cooperate is to shoot them.

Far from possessing a genius for 'hybrid warfare' in which *maskirovka* is a decisive component, the modern Russian approach to deception appears slapdash: it failed to conceal its offensive preparations in 2022, and its ludicrous justifications for the war in Ukraine are believed only by the political extremes. Furthermore, during the Ukrainian counter-offensives of autumn 2022, the Russian military was comprehensively deceived itself: it failed to identify the Ukrainian main effort around Kharkiv and instead believed that the main effort would be to liberate Kherson. This allowed the Ukrainians to liberate 500 settlements and 12,000 square kilometres of territory in Kharkiv Oblast. This deception plan, supported by partisan activity, fires, fake signals, decoys and media engagement, would, ironically enough, have been recognisable to those who planned the Bagration deception 78 years earlier.⁴⁰

³²The NKVD was delighted when on 28 March 1945, "Scherhorn" received a personal signal from General Heinz Guderian promoting him to full Colonel and telling him of his award of the Knight's Cross of the Iron Cross.

³³Hastings, 2015, pp. 456-7.

³⁴Overy, 2021, pp. 518-9.

³⁵Dimbleby, 2024, p. 214.

³⁶Dimbleby, 2024, p. 216.

³⁷Buttar, 2025, pp. 98-9.

³⁸Tucker-Jones, 2009, p. 6.

³⁹Ash, BBC News.

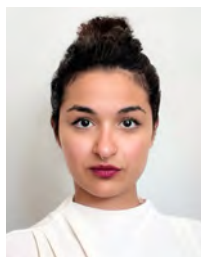
⁴⁰Dylan, Huw, et al., 'The Kherson Ruse: Ukraine and the Art of Military Deception', *Modern War Institute*, 10 December 2022.



HAMAS' HOMEWORK: LESSONS ON CYBER AGILITY AND COUNTERINTELLIGENCE

AUTHOR

Ino Terzi is a researcher at Chatham House where her work covers violent non-state actors' use of digital technologies for intelligence collection and analysis.



NEARLY two years ago, at 6:15 on the morning of 7th October 2023, Hamas fighters began advancing towards the Gaza border. Within 15 minutes, sirens sounded across more than 30 Israeli communities, signalling the launch of a barrage of missiles. Amid the chaos of incoming fire and Iron Dome interceptions, Hamas snipers systematically destroyed surveillance cameras along the border, while 100 drones carrying explosives targeted Israel Defence Forces (IDF) observation towers, disabling optical, radar and thermal sensors.¹ This deliberate and coordinated blinding campaign gave Hamas the tactical advantage necessary to carry out an attack of unprecedented scale and lethality within Israel.

In the days and weeks that followed, analysis focused heavily on the Israeli intelligence failure and the IDF's delayed response. Far less attention, however, was paid to the intelligence capability that enabled Hamas to plan and execute the attack. The carefully

choreographed actions of 7th October reflect Hamas' grasp of the importance of intelligence, surveillance and reconnaissance, as well as their ability to collect the information that informed tactical planning, particularly for the critical initial stage of the assault. For example, Hamas was aware that the IDF's procedure when under attack was to initially retreat troops, which would allow some time to disable border surveillance. Evidence uncovered from seized Hamas servers has since revealed an intelligence apparatus that was systematic, patient and far more advanced than many had assumed. Years of sustained capability development had preceded the attack.

This article examines one of the most consequential enablers of the 7th October assault: Hamas's intelligence capability, particularly its use of digital tools for information collection and analysis. It argues that Hamas built an effective intelligence enterprise without depending on the continuous support of a sponsor state. Understanding this evolution offers valuable insights into the shifting threat landscape and key lessons for how state armed forces must adapt to maintain advantage in the cyber domain.

WE TALK ABOUT THEIR WEAPONS. WHY NOT THEIR INTELLIGENCE?

Open-source research provides little insight on non-state actors' intelligence function, especially compared to the wealth of analysis focused on their offensive capabilities and information operations. Intelligence, by its nature, is a stealth capability; its effects are often intangible and its contributions to operational success are easily overlooked. This is even more pronounced in non-state actor research, likely due to assumptions pertinent to their organisational culture and resourcing.

While violent non-state actors are a broad category that encompasses a diverse range of entities, it is generally understood that such bodies lack the organisational capacity and governance structure of states. Furthermore, politically motivated violent non-state actors are usually

¹APPG for UK-Israel, 'The Roberts Report on The 7 October Attacks', UK Parliament.

characterised by authoritative and ideological decision-making centred at the elite level, sometimes combined with an ideologically motivated following characterised by autonomous decision-making at the individual or sub-unit level (as, for example, in the case of Al-Qaeda and ISIS). This structural complexity and the ideological motivation of decision-making appears at odds with a coherent, evidence-based and impartial intelligence function, particularly at the strategic level.²

Within the wide spectrum of violent non-state actors, Hamas and especially its Gaza branch along with its military component, the Izz ad-Din al-Qassam Brigades, have been characterised by a high degree of structure and institutionalisation since the organisation's election into the government of the Gaza strip. Along with this institutionalisation came the establishment of a structured intelligence function in two main bodies: the Military Intelligence Department and the Internal Security Force (also referred to as the Internal Security Service). The Military Intelligence Department is part of the Izz ad-Din al-Qassam Brigades and is focused on intelligence collection against Israel through cyber activity, open source intelligence, human intelligence and limited signals intelligence.

²See for example Bitton, 'Getting the right picture for the wrong reasons: intelligence analysis by Hezbollah and Hamas', *Intelligence and National Security*, 25 Sep 2019.

³Itay Ilnai, 'The road to Oct. 7: how Hamas got the intelligence it needed', *Israel Hayom*, 17 March 2024, israelhayom.com/2024/03/16/the-road-to-oct-7-how-hamas-got-the-intelligence-it-needed

⁴ECFR, 'Mapping Palestinian politics', ecfr.eu/special/mapping_palestinian_politics/internal_security_force

⁵Adam Rasgon and Ronen Bergman, 'Secret Hamas files show how it spied on everyday Palestinians', *The New York Times*, 13 May 2024, nytimes.com/2024/05/13/world/europe/secret-hamas-files-palestinians.html

⁶See Cronin, 'Power to the People', 2020, Oxford University Press.

⁷See Marzuk and Green, 'AI through the lens of ISIS', *ActiveFence*, 13 May 2025.

⁸⁻⁹Original Israeli media report: N12, 29 December 2024, mako.co.il/news-military/036814c74a0e1910/Article-bac7c640ec31491026.htm

¹⁰Ronny Reyes, 'Hamas spent 7 years collecting intel on security cameras, guards and even a kindergarten in Israeli communities massacred on Oct. 7: report', *New York Post*, 30 December 2024, nypost.com/2024/12/30/world-news/hamas-built-intel-on-israeli-border-town-for-7-years-before-oct-7-terrorist-attack-report

¹¹Media coverage: Omer Benjakob and Oded Yaron, 'Cyber Nightmare: Hamas has detailed intel on thousands of Israeli soldiers, families', *Haaretz*, 22 July 2024, haaretz.com/israel-news/security-aviation/2024-07-22/by-article/premium/hamas-produced-detailed-dossiers-on-over-2-000-israeli-air-force-soldiers-families/00000190-d737-d548-a3ba-ffff22810000

"The intelligence underpinning the 7th October attack was unexpectedly sophisticated, both in depth and in the diversity of its sources. Intelligence dossiers compiled by Hamas operatives and seized by the IDF revealed sustained surveillance of Israeli communities near the border, efforts to track senior security officials and detailed reports on thousands of IDF personnel."



Before the 7th October, it reportedly numbered 2,100 operatives.³ The Internal Security Force falls under the ministry of interior and is responsible for domestic intelligence and counterintelligence.⁴ Finally, the General Security Service is part of the Hamas political party and operates as a paramilitary police force (reportedly consisting of 856 personnel prior to 7th October).⁵

There has also been an underlying assumption that non-state actors have limited access to the training, equipment and tradecraft needed to sustain systematic intelligence activity. While resource asymmetry certainly exists, the diffusion of technology – especially digital tools and open databases – has provided non-state actors with an asymmetric advantage in the cyber domain.

A common characteristic among violent non-state actors is that they are expert at adopting and adapting cheap and easy-to-use technology that allows them to achieve outsized effects. This agility is well-documented with regards to offensive capabilities, for example the short learning cycle for improvised explosive device innovation in Afghanistan⁶ and the quick and effective adoption of digital technologies like social media and artificial intelligence for communication and propaganda by ISIS affiliates.⁷ Similar agility and resourcefulness in technological adoption for intelligence collection has received far less attention, despite its growing importance in irregular warfare.

Finally, a possible third assumption is that there is little that can be done to deter or obstruct non-state actors' intelligence collection and little that can be learnt from its study. Such a view is unambitious and counterproductive. Understanding how non-state actors exploit digital technologies for intelligence purposes can yield valuable insights not only for counterterrorism and counterinsurgency, but also for our understanding of the implications

of the evolution of the contemporary digital landscape.

DIGITAL INTELLIGENCE AT THE CORE OF THE 7TH OCTOBER ASSAULT

The intelligence underpinning the 7th October attack was unexpectedly sophisticated, both in depth and in the diversity of its sources. Intelligence dossiers compiled by Hamas operatives and seized by the IDF revealed sustained surveillance of Israeli communities near the border, efforts to track senior security officials and detailed reports on thousands of IDF personnel.

Much of this intelligence was acquired through cyber means. Hamas gained access to dozens of civilian security cameras positioned near the border, allegedly by exploiting access codes that had been shared among Israelis via WhatsApp and Telegram.⁸ According to Israeli media, Hamas also infiltrated the email accounts of security officials in the kibbutzim and managed to acquire sensitive information on local defensive arrangements. Through cyber-espionage, Hamas reportedly obtained material shared between Israeli local command centres, including surveillance footage of critical border infrastructure.⁹ What was observed is that communities subjected to more intense intelligence collection were most affected during the assault.¹⁰

Hamas is also said to have compiled detailed dossiers on more than 2,000 Israeli Air Force personnel, including individuals in sensitive roles. These files reportedly contained personal information such as phone and licence plate numbers, passwords and even bank account details. The data was gathered through a blend of online open-source research, leaks – likely obtained through the hacking of non-governmental platforms – social media scraping and public databases. A profiler tool was used to aggregate, cross-reference and fuse the data into individualised intelligence packages.¹¹ While

targeted strikes against specific individuals were not the focus of the 7th October attack, there were attempts to track down and target specific high-ranking officials.¹²

This access and capability were not developed overnight. Hamas' cyber-espionage effort along the border was reportedly in progress for at least seven years prior to the 7th October attack.¹³

CYBER AS A WORKAROUND

After becoming the official governing body of the Gaza strip in 2007, Hamas combined state-like qualities with non-state actor characteristics. Its control over territory enabled the creation of formal institutions and structures, including for its intelligence apparatus, but the persistent constraints on resources meant Hamas never abandoned the operating methods of an irregular force. In fact, as demonstrated by its intelligence capability, Hamas maintained a strong grasp on key competitive advantages of non-state actors: agility and ingenuity.

Hamas' intelligence collection in the cyber domain embodied the resourcefulness associated with non-state actors. The cyber domain was seen as a treasure trove of assets that could be adapted and exploited with minimal cost, lower technical barriers and limited exposure to physical risk. The variety and accessibility of digital tools offered Hamas broad opportunities for creative and adaptive collection techniques.

Cyber capabilities were effectively leveraged

¹²Toi Staff, 'Hamas gathered intel, footage from Gaza border towns for 7 years before Oct. 7 slaughter', *Times of Israel*, 30 December 2024, [timesofisrael.com/hamas-gathered-intel-footage-from-gaza-border-towns-for-years-before-oct-7-report](https://www.timesofisrael.com/hamas-gathered-intel-footage-from-gaza-border-towns-for-years-before-oct-7-report)

¹³N12, 29 December 2024.

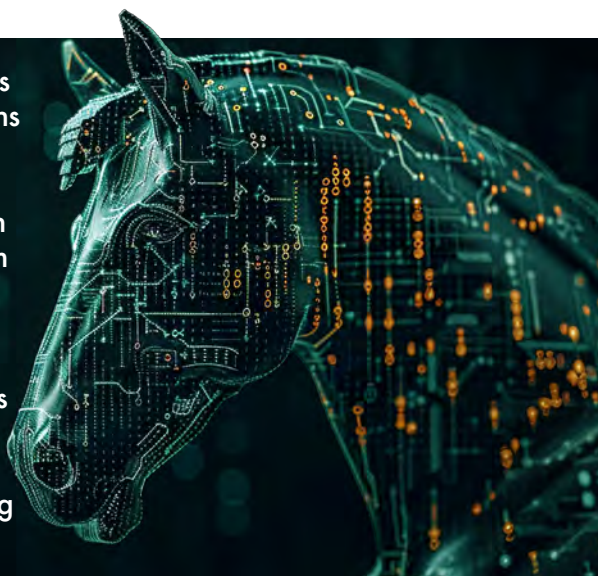
¹⁴See Thaler, 'Gender differences in motivated reasoning', November 2021, *Journal of Economic Behavior and Organization*, pp. 501-518.

¹⁵Relevant media reports: Reuters, 'Israel says Hamas tried to snare soldiers in World Cup cyber trap', 3 July 2018, [reuters.com/article/technology/israel-says-hamas-tried-to-snare-soldiers-in-world-cup-cyber-trap-idUSKBN1JT247](https://www.reuters.com/article/technology/israel-says-hamas-tried-to-snare-soldiers-in-world-cup-cyber-trap-idUSKBN1JT247); Yaniv Kubovich, 'Hamas cyber ops spied on hundreds of Israeli soldiers using fake world cup, dating apps', *Haaretz*, 3 July 2018, [haaretz.com/israel-news/2018-07-03/ty-article/hamas-cyber-ops-spied-on-israeli-soldiers-using-fake-world-cup-app/0000017f-da75-dea8-a77f-de77ba340000](https://www.haaretz.com/israel-news/2018-07-03/ty-article/hamas-cyber-ops-spied-on-israeli-soldiers-using-fake-world-cup-app/0000017f-da75-dea8-a77f-de77ba340000)

¹⁶⁻¹⁷Flamer, 'The Hamas Intelligence War', 2025, Cambridge University Press, pp. 84-99.

¹⁸For the report on one of those actors, see: Checkpoint Research, 'Hamas-affiliated threat actor Write continues its Middle East operations and moves to disruptive activity', research.checkpoint.com/2024/hamas-affiliated-threat-actor-expands-to-disruptive-activity

"Hamas' Trojan horses were digital adaptations of the ancient tactic, exploiting the fusion of military and civilian spaces that stems from the ubiquity of digital technology. They came in the shape of falsified online profiles of attractive Israeli women who targeted male soldiers on dating applications."



to offset Hamas' inability to acquire more traditional and technically demanding intelligence capabilities, such as geospatial or advanced signals intelligence. This is evident in the exploitation of the civilian security cameras for intelligence, surveillance and reconnaissance and the digital interception of email communications between security personnel to gather details on border defences and security protocols. Notably, Hamas astutely perceived smartphones as a potential bridge between soldiers' personal and professional lives and attempted to exploit the vulnerabilities stemming from the fusion of the two spaces.

ONLINE DATING AND DIGITAL TROJAN HORSES

The original Trojan Horse, famously conceived by Odysseus, stands as a symbol of cunning deception. When the Trojans welcomed the wooden structure, secretly filled with elite Greek soldiers, they believed they were accepting a gift from the Gods. The 2,500-year-old myth continues to serve as a cautionary tale, warning against what psychologists now describe as goal-oriented motivated reasoning: the tendency to overestimate the likelihood of favourable outcomes – a tendency that according to some researchers appears to be more prevalent among men.¹⁴

Hamas' Trojan horses were digital adaptations of the ancient tactic, exploiting the fusion of military and civilian spaces that stems from the ubiquity of digital technology. They came in the shape of falsified online profiles of attractive Israeli women who targeted male soldiers on dating applications.

After building rapport, the Hamas undercover operative would ask the soldier to download a chat application to continue the conversation there. Several of those applications could

be downloaded from the Google Play Store before they were identified as containing malware.¹⁵ This could have provided false reassurance to the target that the application was benign. In reality, the application contained spyware that provided access to the device's camera, microphone, files and contact list. The malware remained active in the device even if the application was uninstalled.

This activity has been traced back to at least 2014.¹⁶ Over the following years, Hamas adapted its social engineering approaches to enhance effectiveness and avoid detection.¹⁷ A different iteration of this method involved a mobile application called *Gold Cup*, which provided fixtures and live scores for the 2018 FIFA World Cup. Hamas operatives promoted the application on social media through fake profiles, specifically targeting members of the IDF and security services. That application was also laced with spyware similar to the one used in the dating apps.

These cyber-espionage operations persisted despite the IDF's awareness-raising campaigns and even survived the 2021 IDF airstrike against Hamas' cyber headquarters. Hamas-affiliated cyber actors allegedly remained active even during the post-7th October war.¹⁸ The consistency and duration of these campaigns strongly suggest that Hamas derived actionable intelligence from these efforts. It also demonstrates a level of institutional commitment to cyber-espionage as a long-term capability, rather than a sporadic or opportunistic effort.

EXPLOITING THE OPENNESS OF ISRAELI MEDIA

The digital environment provided Hamas with ready access to a wide array of open-source material. Media reporting was Hamas' main source of strategic intelligence, offering insight into Israel's strategic posture and

serving as a source for basic intelligence.¹⁹ While Hamas' exploitation of Israel's democratic society and pluralist media landscape provided it with an asymmetric advantage, it also presented an opportunity for the IDF to achieve strategic surprise.

An example of this is the launch of Operation Cast Lead. Knowing that Hamas was overly reliant on open source intelligence for strategic intelligence, Israeli authorities manipulated the information landscape to confuse Hamas regarding the imminence of the attack. Misleading statements by Israeli political elites, a decision to open the border and to allow aid into Gaza, and a last-minute change of the attack launch date in response to a media leak all contributed to the achievement of surprise on Saturday 27th December 2008 when the operation was launched.²⁰

While this vulnerability was notable at the strategic level, the demand for democratic openness placed on Israeli authorities and Israel's diverse and pluralist media landscape meant that Hamas was able to rely on media monitoring for an accurate picture of Israel's domestic politics and public opinion. Additionally, Israeli reporting on the aftermath of terrorist attacks provided Hamas with information regarding Israel's security apparatus response times and procedures and relevant security measures. Hamas treated media reports as a high-value intelligence source and developed systematic collection and analysis processes to fully capture and exploit this information.

CYBER-ENABLED NON-STATE ACTORS

Hamas operated under conditions of pronounced asymmetry in both capability and resourcing. Its intelligence activity was

unsophisticated both technologically and methodologically. Its competitive advantage lay in the quick identification and clever fielding of simple, accessible tools that effectively met operational intelligence requirements. As a governing authority in Gaza, Hamas was able to incrementally build its intelligence capacity over several years. Yet, the enduring disparity in power and resources compelled it to preserve the agility, adaptability and improvisational mindset characteristic of an insurgent force.

As in the case of Hamas, non-state and semi-state actors determined to engage in asymmetric confrontation will increasingly turn to intelligence operations in the cyber domain to maximise achievement of effect. This can be observed in the operations of the Houthi group, the Taliban and Iranian proxy actors. Armed groups that enjoy some degree of protection from their adversaries, whether through sustained territorial control, state sponsorship or an opponent hampered by domestic or strategic constraints, are particularly well-placed to develop cyber capabilities and access over time.

This case study also underscores the opportunities and threats arising from the convergence of military and civilian cyber spheres, a fault line exploited by both non-state and state actors.

FOSTERING INGENUITY AT THE TACTICAL EDGE

Contemporary conflicts such as the wars in Gaza and Ukraine have underscored the imperative to invest in defensive and offensive agility in the information and cyber realms. While much of the current discourse in defence focuses on technological innovation and rapid acquisition, less attention is paid to

practical steps aimed at fostering ingenuity; the ground-level, adaptive problem-solving that emerges when soldiers, knowledgeable in the practices of both friendly and enemy forces, re-purpose existing, widely available tools in imaginative ways.

Anticipating and matching the agility of a non-state actor or even a nimble state adversary is inherently challenging for conventional forces. Risk management protocols, contractual restrictions on equipment use and the need for standardised tactics, techniques and procedures to ensure interoperability can all limit flexibility on the ground.

While it may be worth re-examining some of these constraints, there are also low-disruption, high-impact measures that could foster a stronger culture of ingenuity. Cross-pollination of ideas across cap badges and ranks, such as inviting junior combat arms personnel to contribute to Intelligence Corps red teaming, can spark creative thinking. Exercises that incorporate unexpected denial scenarios, especially involving digital tools, can encourage soldiers to think beyond established standard operating procedures and explore new ways of employing existing kit. An award or recognition scheme at the sub-unit level for innovative use of digital equipment would send a clear message that adaptive thinking and initiative are valued as operational assets. Additionally, creating a process to streamline the transfer of expertise from non-violent, non-state actors – such as open source intelligence trailblazers – to national armed forces can help keep intelligence cyber toolkits and techniques on the cutting edge of innovation.

Finally, the British Army must reckon with the deep integration of digital technology across both military and civilian life and the pressure this places on individuals. Beyond counterintelligence training and awareness campaigns, there must be recognition that the cognitive load on today's soldiers is significant. As demonstrated by Hamas' utilisation of online romance, adversaries will design operations to benefit from human vulnerability, such as feelings of shame, to prevent early reporting of security lapses. Establishing discreet, non-punitive reporting mechanisms for suspected breaches would encourage early disclosure and enable faster, more effective containment.

"The demand for democratic openness placed on Israeli authorities and Israel's diverse and pluralist media landscape meant that Hamas was able to rely on media monitoring for an accurate picture of Israel's domestic politics and public opinion."



¹⁹⁻²⁰For a detailed analysis of Hamas' open source intelligence capability see: Flamer, "The enemy teaches us how to operate": Palestinian Hamas use of open source intelligence (OSINT) in its intelligence warfare against Israel (1987-2012)', 2023, *Intelligence and National Security*, 38:7.



DRIVE TO SURVIVE TECHNOLOGY-DRIVEN MILITARY TRANSFORMATION

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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.



FOR Tom Weeves, adjutant of the 3rd Battalion, finding a stand-in chauffeur for the colonel was a simple task... one of 327 he'd be expected to achieve this week alongside his actual job. After a quick email to the company commanders, Lance Corporal 'Bucky' Buckton, 'a reliable, conscientious NCO' was volunteered. Technically, the commanding officer didn't have a dedicated car and driver and although Lieutenant Colonel Jooster wasn't 'uber' disappointed by this, it was useful for someone to pick him up for the weekly three-hour drive to his 20-minute meeting with the Brigadier. With lucrative LinkedIn job offers arriving daily, it was a simple perk reminding him he was being invested in.

Bucky's baptism of being behind the wheel for the CO would follow in short order. With the Security Defence Review hot off the press, the Defence Minister was visiting, giving the colonel and the Battalion the opportunity to

showcase the equipment they'd use in the defence of Europe whilst gently pointing out how little they actually had to showcase. Bucky would be needed to pick up Weeves from his newly renovated Army quarter, drive to collect the commanding officer and the minister, and then take them all to the training area to meet the soldiers.

"Weeves, I want you in the car tomorrow to remind me of all the equipment and personnel stats," Jooster had instructed on the eve of the visit, softening the ask with the assertion that the task would present "some valuable exposure to ministerial thinking before you go to Staff College".

The next day it was still dark on 'the patch' when the quiet was rudely punctuated by the dull thud of a car striking Weeves' wheelie bin and the tell-tale clinking of its contents cascading across the street.

"I'm so sorry, sir, I'm not used to driving this

car and me foot slipped off the little pedal," offered Bucky by way of an apology for his chaotic arrival.

With time pressing, they set off and Weeves made a mental note to WhatsApp his – until recently – sleeping wife to beg forgiveness. It wasn't far to the colonel's house, but as Weeves felt himself pumping an imaginary brake from the passenger seat for the eighth time, the journey began to feel torturous.

"How long have you been driving, Bucky?"

"I've had my provisional for nearly three months now, sir, and fingers crossed it will be a case of second time lucky and I'll pass my theory test next month."

Panic swept over Weeves. At 5am there wasn't the time or opportunity to unpack this particular goat rodeo, or find a new driver and still pick up the minister. None of his options were good. Either drive himself, in which case he couldn't provide the colonel with the stats so central to the discussion, or slap L plates on the car's bonnet and boot and be Bucky's qualified supervisor.

"Do me a favour, Bucky, just pull over here. Probably best if I drive."

"Oh, right-o."

They arrived at the CO's house about five minutes late. If pictures speak a thousand words, Jooster's expression to Weeves indicated he was only thinking of a thousand four letter expletives. But ever the charming professional he didn't let the minister see. Weeves and Bucky both jumped out and were introduced.

"Minister, this is my adjutant, Captain Weeves. He'll be running the whole Army one day."

"Very nice to meet you again Weeves, we met at your commissioning parade."

The Defence Minister was part of the recent crop of MPs who served as junior officers in Afghanistan and now had licence to ask generals difficult questions in front of television cameras without necessarily listening to their answers.

"And this is Lance Corporal Buckton... my driver."

"Nice to meet you Corporal Buckton. I'm sure you're much better than my old driver. In the space of a couple of years he managed to crash every vehicle the British Army owns, from a quad bike to a 50-seater coach."



The colonel laughed, a little too loudly. Weeves didn't laugh at all.

"Right then Bucky, you jump in and Weeves I need you to keep me honest with all our equipment and personnel stats – I don't want to be accused of deceiving a minister," the colonel joked.

Weeves was always impressed with how the colonel briefed. A paragon of intellect and energetic optimism, he quickly set about explaining how the transformation of the Battalion's preparedness and resilience reflected the shift to NATO's 'third era', and how attritable capabilities could replace the massed ranks of previous generations. He'd hoped to show a montage video of future high-tech drones accompanied by copyright infringing music, but he couldn't get it to play on his iPad. The minister scribbled "Attritable? Actually a word?" in his notebook.

The colonel and the minister were clearly kindred spirits. They shared the same lexicon – 'vision', 'ambition', 'intent' – but from Weeves' perspective very little seemed to chime with the daily reality of the 3rd Battalion. As they discussed how the Battalion had culturally shifted towards data-centric warfare, Weeves reflected that last Thursday he couldn't access MODNET on camp and had been forced to return to the patch to recruit the services of his home Wi-Fi. It wasn't that the colonel and the minister were being disingenuous, but they'd convinced themselves that by repeating the 'vision' of technology driven military transformation so many times, they had somehow part achieved it – and ignored the inconvenient truths that Weeves lived and breathed.

However, as his head bounced off the driver's headrest for the second time, the minister's attention was drawn away from the Defence

Review. Always genuinely interested to meet soldiers and hear what they had to say, he asked Bucky what he thought about it all – something Weeves had rather hoped wouldn't happen. Given the opportunity to vent, the onslaught was, frankly, relentless.

"Tesco don't care how much sport I've done or if I have the 'ambition' to pay for all me shopping," he explained. "They expect me to pay for it now."

"But you've just had an above inflation pay rise," retorted the minister.

"Aye but if I do a good job I'd like to think I'd get promoted. The Army is so small I'd have to bring the Queen back to life to stand any chance of stepping into dead men's shoes. And you lot'll try and give me job to a freakin' robot, so you don't have to give it an Army house and a pension."

To lighten the mood, and in a bid to change the subject, the colonel chipped in: "Well at least the Army's got you a driving licence, Bucky."

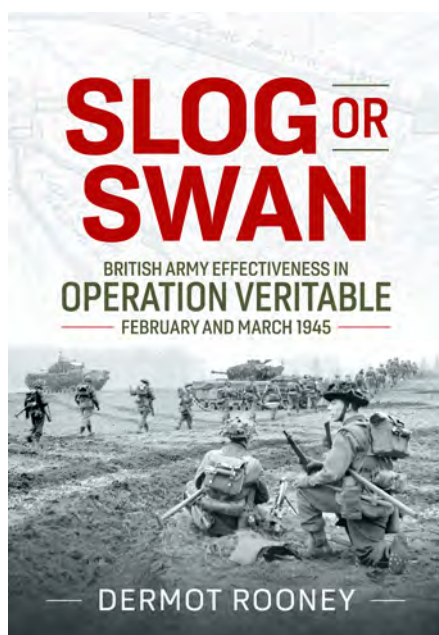
"Not yet it hasn't, sir," Bucky replied.

If they hadn't just arrived on the training area Weeves was considering feigning some sort of medical emergency. Fortunately, the regimental sergeant major was there to whisk the minister away.

Later that evening as Weeves walked out of camp, exhausted and nerves frayed, he was shaken by a loud horn, a cheery grin and a big double thumbs up. The happiness of the smile and the enthusiasm of the thumbs up made him feel instantly much better – a tiny, fleeting reminder to the resilience, resolve and cheeriness of the British soldier. The relief was, however, short lived as it dawned on Weeves that the provider of the *Ted Lasso*-style pick-me-up was Bucky Buckton and that the lance corporal was driving out of camp in a 6-tonne MAN truck.

That the period for which he worried about what he had just witnessed was also only momentary did not shock Weeves when he considered the context. He did, after all, work for an organisation that drives with its lights on during the day and turns them off at night. And besides, he had more pressing concerns – such as still needing to scoop up the empty bottles of 'chicken wine' that had been unceremoniously ejected from his wheelie bin and were currently residing on next door's lawn.

The Boxer will be back in the next issue of The British Army Review...



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TITLE

Slog or Swan: British Army Effectiveness in Operation Veritable, February and March 1945

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A 'VERITABLE' EXAMINATION

For those seeking to understand the frictions of high intensity warfare in a congested battlespace – while contesting unreliable communications, inadequate infrastructure, exhaustion and a defeated yet resilient enemy – *Slog or Swan* is essential reading.

Dr Dermot Rooney opens his book with the question “how did British units and formations fight in Operation Veritable?”. He asks so because histories of Veritable have generally followed a ‘top-down’ approach out of necessity due to limited access to sources. To redress this and in search of a more accurate answer, the author adopted a ‘nearly-bottom-up’ approach by conducting forensic studies of how 60 of the operation’s battalion group battles were fought. By combining infantry, armour and artillery war diaries, unit histories and communications logs, these ‘contacts’ are explored in detail then linked to show how XXX Corps repeatedly attempted to achieve breakthrough. The title’s seven chapters follow the Corps’ main effort from Grosebeek to Wesel, but each has a distinct theme, starting with the confused planning process in the aftermath of Market Garden, where national imperatives (British, Canadian, American and, of course, German) intervened.

On artillery (chapter 2), Rooney builds on the contemporary Swann Report to calculate rates of fire to achieve effect. He also questions the official assertion that, of the more than 500,000 shells fired, there was not a single case of a round falling short, instead suggesting that 15 per cent of British and Canadian casualties were due to artillery fratricide. The reality is that the effectiveness of artillery was curtailed by poor infantry-artillery communications and route congestion (and destruction) through the need to move the guns forward and resupply. An excess of artillery and armour, combined with their logistics chain, ‘caused’ Veritable to become a slog, rather than the swan which was the Corps’ intent (chapter 3).

The ‘mines and mud’ narrative is examined in the context that both were known constraints, but the armour’s intent to facilitate the ‘swan’ contributed to the ‘slog’. Flail tanks were

inefficient in wet conditions, the narrow tracks of Shermans resulted in them bogging in or destroying road surfaces and top heavy bridging equipment toppled over, all of which blocked routes for infantry who trudged forward on foot. Inefficient ‘tactical logistics’ contributed to delays in actions and follow-up actions, which commentators on the ‘top down’ narrative have attributed to lethargy, as highlighted by Operation Leek, one of Veritable’s many subordinate operations (chapter 7). In this instance, more was not better: Rooney comments that “operationally imposed logistical constraints prevented any chance of turning defeat into victory”.

The chapters on ‘command and control’ and ‘infantry and armour cooperation’ argue that the root of failings lay with the weaknesses of the XXX Corps command systems, which resulted in many missed

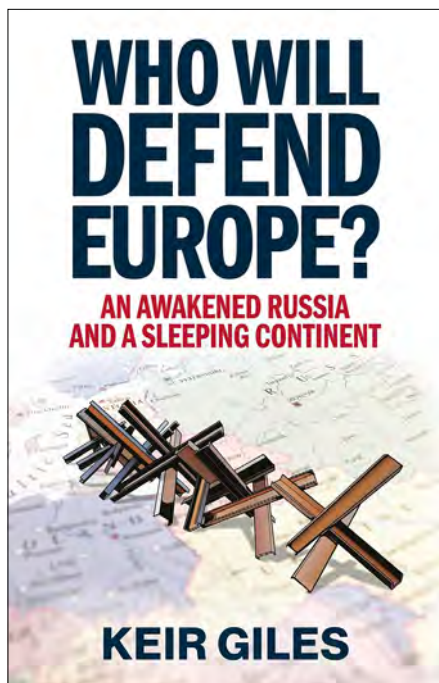
opportunities. Rooney examines delays in delivering orders and in their execution, citing multiple reasons, including failure of communications and senior commanders taking their ‘eye of the ball’ while focusing on another aspect of the campaign. There were instances of successful armour-infantry cooperation, but usually between familiar units, and the arrival of unfamiliar supporting armour shortly before an action

commenced rarely proved as effective.

The topic of urban attrition is covered in a subsequent chapter, which demonstrates that the author is clearly very familiar with the twin attacks on Goch and the surrounding actions that influenced both British and German commanders. The key lesson highlighted relates to the ‘negative effects of heavy bombing’ (despite the experiences of Monte Cassino and Caen), which remains pertinent today, as evidenced by, for example, Bakhmut.

Throughout *Slog or Swan*, Rooney questions the established narratives without appearing to take sides; examining each action on its merits. He does this extremely well and although time and space limited the number of actions he could analyse, it is hoped that further historians will follow Rooney’s methodology.

“Rooney questions the established narratives without appearing to take sides... He does this extremely well.”



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TITLE

Who Will Defend Europe? An Awakened Russia and a Sleeping Continent

AUTHOR

Keir Giles

REVIEWER

Major Luke Turrell,
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SMELLING SALTS FOR THOSE STILL SNOOZING

Keir Giles has written extensively for decades about the threat from Russia, the lack of Russia literacy amongst Western military and policymakers and, as a result, errors in how to constrain and deter Russian aggression. This is based on a deep and broad knowledge of Russian security culture and access to serving soldiers, politicians and policymakers in the US, UK and Europe. Both of which are apparent in this, his most recent book, written and published just before the result of the US election. The near 50 pages of references and endnotes in a 280-page offering demonstrate this well – *Who Will Defend Europe?* is a product of rigorous academic research resulting in strongly justified argument, analysis and evaluation.

The structure supports the argument formulation well. Starting with a chapter entitled *Russia's next war*, Giles details two key elements: Russia's strongly held grievances and Western timidity. The former includes the will to correct their current borders (an enduring Russian security preoccupation) which they consider "incorrect, unjust and need to be put right". The author recently briefed students at the UK Land Command and Staff College and showed the child's map, *Map of our Motherland*, that he references in the book. This, he argues, speaks of a "mental geography" that supports Russia's rightful role to exert power over its near abroad and represents a fundamental clash of world views that will unavoidably lead to confrontation between Russia and the West.

Speaking of the Ukraine war specifically, Giles is clear there are two overlapping factors that led to the invasion in 2022 – confidence that Ukraine would collapse quickly, and that the West would not intervene. And the reason why Russia invaded Ukraine is the same reason it will attack other countries too – it feels it can do so at a cost it finds acceptable. In this respect, Giles' insight into enduring Russian security culture is hugely valuable. He points out Vladimir Putin's personal grievances and emotional investment have led Russia to entirely different metrics for effectiveness and success than NATO and warns against judging Russia's deployability in future against NATO standards. Equally, that, having engineered European citizens to pressurise their governments to abandon Kyiv, success in Ukraine will be seen as a return to greatness.

Paradoxically, but very Russian, the greater the Russian losses incurred, the greater the victory.

At times Giles can go too far, for example, his statement that the "Kremlin leadership... long ago abandoned all restraint" doesn't stand up to scrutiny. However, it draws out that Western governments have repeatedly and consistently failed to act on the misguided belief that responding firmly to Russian aggression will provoke further escalation. Turkey, which shot down a Russian fighter jet in 2015 and went 'unpunished', is a case in point.

The author is equally unequivocal that Russia's next war will be enabled by a "lack of demonstrable will by western nations to act" coupled with the potential for the US to "refuse to get involved or withdraw support altogether". And that the conflict will persist until Russia suffers a clear, unambiguous and undeniable defeat. However, Russia doesn't have to be successful or correct in its assessment of when to go to war. What deters Russia, and has done reliably over hundreds of years, Giles concludes, is a credible force in place. And, because of the strong historic sense of grievance, if Europe want peace – they must remove Russia's ability to threaten others.

Having established the threat (*An Awakened Russia*), Giles moves on to the "sleeping continent". In the chapter entitled *Future of Ukraine and the future of Europe*, he points to repeated delays in providing Ukraine with the resources it has needed – only for the resources to be eventually supplied, too late. More concerning, he is clear that defeat for Ukraine will have far wider ramifications. The chapter entitled *What if Ukraine loses?* supposes it would tacitly allow internationally recognised borders to be redrawn by military force in future and usher in an era of America being manipulated to abandon its allies. Both are debatable as statements of fact – but Giles is trying to engender debate – and therefore puts across a specific point of view to be debated.

Failure of US policy is explored in the chapter *America – distracted and divided*, where Giles highlights that, in February 2024, when Trump encouraged Russia to attack NATO countries, there was no mention of it on the front pages of the next day's *New York Times* or *Washington Post*. Giles was clearly mindful that the book would be published before



the result of the election was known and is generally pessimistic about the prospect of a Trump presidency. However, he highlights that with or without Trump, the highest levels of decision making in the US have suffered from a pathological reluctance to confront Russia. This has led to fixating on avoiding further escalation rather than addressing the escalation that's already taken place.

The UK is next in the cross-hairs of Giles' withering scorn. He points to a consistent British approach of only recognising as much threat from abroad as it can afford and relying on allies. In a description borrowed from RUSI's Jack Watling, he characterises the UK as "attending a bring a bottle party empty handed, because you assume everyone else is bringing something, then realising there's nothing to drink". The forensic analysis of the frailties of the UK Armed Forces is painful reading. It draws out that in 21st century conflict attrition is unavoidable and quickly makes a small force irrelevant. Moreover, whilst new and novel technology can buy out some of the challenges, "you can't cyber your way across a river".

Part of the reason for the frailties and failings in the UK and NATO is explored in depth in the chapter *NATO and Europe – half promises and broken pledges*. This starts with the

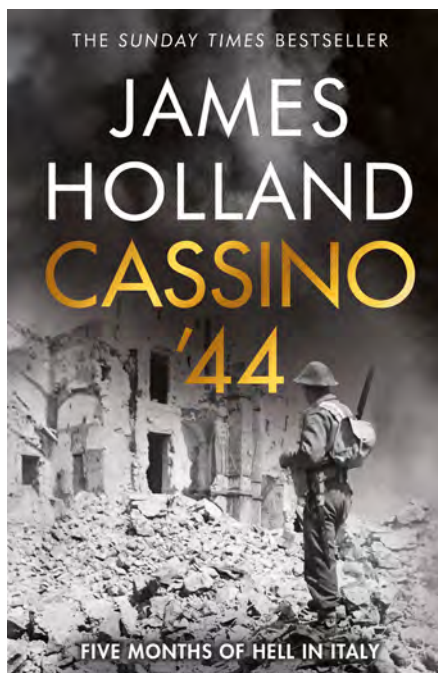
"This book makes it plain, in clear and meticulously researched chapters, that the global contest the West is in, is one it needs to win."

recognition that Europe's new strategic reality doesn't come easily to politicians who've spent their whole life not having to consider defence, whilst too few have explained to voters that the freedom and prosperity they take for granted has to be fought for and protected. This crashing realisation, shaped by 'wars of choice', means that "just as you can't choose whether or not to be at war with Russia, [Europe] may be unable to choose the nature of that war and how long it lasts for".

Unsurprisingly, *Who Will Defend Europe?* advocates strongly for increased defence spending, either to assist Ukraine now or fund the more expensive war that will follow if Ukraine is abandoned. Critically it differentiates between actual defence spending and hiding behind relative gross domestic product (GDP) as a means of deterrence. As Giles highlights: "War is not a contest of GDP if, as now, only one side is

using its GDP." The path is all too clear and being demonstrated by Finland and Poland (with the former Finnish intelligence chief Pekka Toveri quoted as saying that "Finland doesn't have a defence force, Finland is a defence force"). Critics would suggest adopting a Finnish model, culturally inculcated over the past 100 years, is difficult to achieve socially and politically across Europe. However, whilst not every country can become Finland, Giles believes that more countries can become like Poland – and match their dramatic increase in defence funding and capability.

Giles' previous work for the Defence Academy Advanced Research and Assessment Group in 2008 concluded "history demonstrates the enormous cost of failing to recognise, and invest in containing, the danger posed by a European power which is turbulent, truculent, confident and heavily armed". This book makes it plain, in clear and meticulously researched chapters, that the global contest the West is in, is one it needs to win. Russia goes to war when it believes it is the most effective way of achieving its political objectives, regardless of whether Europe can afford it. Conversely, the fundamental condition for peace and security in the 21st century is Russia being neutralised as a threat. In sum, according to Giles, Europe needs a strategy rather than an inexhaustible supply of excuses.



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TITLE

Cassino '44: Five Months of Hell in Italy

AUTHOR

James Holland

REVIEWER

Dominic Whyte

HOLLAND'S ITALIAN JOB WORTHY OF ACCLAIM

James Holland's *Cassino '44* is a powerful and immersive exploration of one of the most gruelling and significant battles of the Second World War – a fight that to many defines the Allied campaign in Italy. The book's style will be instantly familiar to fans of the author – adopting as it does his growing portfolio's trademark combination of in-depth historic research with vivid storytelling – and delivers a multifaceted examination of the human experiences of the brutal and protracted Battle of Monte Cassino, which was fought between January and May 1944.

Holland's account of the operation – infamous for its intense combat, high casualty rates and being pivotal to the Allies' push up the Italian peninsula – is considered from multiple perspectives, weaving together the stories of soldiers on both sides (and those of civilians caught in the crossfire) with a mix of tactical analysis and thoughtful reflections on the broader implications of the battle. In addition to setting out the strategic context of the Italian campaign, which diverted German troops from what would become the main theatre of Normandy and was crucial to the weakening of the Luftwaffe and German industrial production, Holland identifies the challenges presented by what he refers to as the Tyranny of Overlord – which dictated the pace of operations, constrained the availability of sea power and logistics and reduced the flow of reinforcements and resources. Those in command – General Sir Harold Alexander, US General Mark Clark and German General Albert Kesselring – are all appraised. Holland is a clear admirer of the British element of this three-piece but also challenges the unduly negative reputation of Clark, blaming others for the tactical errors that delayed the ultimate liberation of Rome: notably US General John Lucas, who was eventually removed from his post for missing various opportunities to exploit the initial success of the Anzio landings. Holland also takes a somewhat revisionist view of General Kesselring, asserting that while the German had undoubted strengths, his reputation as a strategist is less deserved.

However, it is Holland's depiction of the impact of these generals' decisions on the lives

of individual soldiers that really sets *Cassino '44* apart from the literary crowd. The book excels in humanising the battle, adding a level of emotional depth that is sometimes overlooked in more academic studies, such as Peter Caddick-Adams' *Monte Cassino: Ten Armies in Hell* (which remains an essential reference for understanding the strategic and operational aspects of the battle).

Holland's focus is on making the readers feel the desperation and courage of those who fought. The book is filled with first-hand accounts of combatants, many of whom speak about the disillusionment, exhaustion and trauma that plagued both Allied and German forces. Emotion also takes centre stage when the author recounts the decision to bomb the ancient abbey of Monte Cassino, which became a symbol of Allied determination. Holland doesn't merely chronicle the event

(and failure to coordinate the bombing with a ground assault), but challenges readers to reflect on the human cost of such actions, including on the Italian civilians caught up in the maelstrom of war. Similarly, the devastation wrought by both sides is not shied away from, nor is the sheer scale of the resulting humanitarian crisis; the proliferation of poverty driven prostitution and indeed the sexual violence shown by certain quarters of the allied force.

"Cassino '44's abundance of compelling tales of heroism, horror and sacrifice do not, make it a history-lite option."

Cassino '44's abundance of compelling tales of heroism, horror and sacrifice do not, however, make it a history-lite option. Thoroughly researched and drawing on an impressive array of sources including veterans' testimonies, official military documents and personal letters, it is a worthy addition to any Italian campaign bookshelf and the included maps provide an excellent visual aide for the reader. Similarly, Holland's presentation of the key generals affords fresh insights into the art of generalship and military leadership; particularly (and perhaps rather aptly given the Strategic Defence Review's 'NATO first' mandate) command challenges posed by decision making as part of a multinational force.

Informative and evocative, *Cassino '44* comes highly recommended.

OUT NOW...

The world is less safe than it has been for more than half a century – there is a storm coming. The first duty of any nation's government is to secure the safety of its people, and therefore the first duty of any nation's army is to be ready to fight and win the nation's wars. It would be both naive and irresponsible to assume that anyone can accurately predict the nature, scale or timing of the security problems that are approaching, and war has been (mercifully) distant from the capitals of western officialdom. Economic circumstance combined with social demands have meant that increasingly little resource has found its way into nations' security preparations. But there are too many indicators and warnings that simply can no longer be ignored. So, what is being done to be ready for the coming storm?

Storm Proofing, edited by the team at the British Army's Centre for Historical Analysis and Conflict Research, offers the collected thoughts of 15 experts – respected practitioners and academics from the UK, US and Europe. They consider what is being done, whether that is sufficient, and how we might think differently about our preparations for 21st century war on land. This is not a book about numbers of troops and equipment, it is rather more human than that. So, it is about how we approach war, how armies might structure themselves and align themselves to modern contexts, how soldiers should think and might feel, and how all of those very human things relate to the march of technology and artificial intelligence.

Storm Proofing is published by Helion & Company and can be ordered by scanning the QR code on this page.



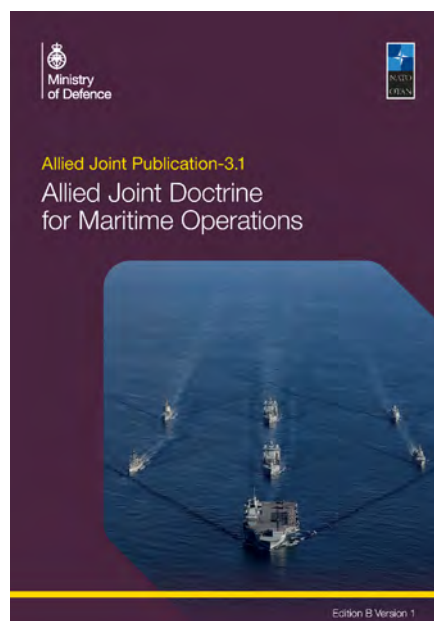
DOCTRINE



In issue #191 of *The British Army Review* we provided a brief update to readers on the impact that Strategic Command's internal transformation programme had on Joint Doctrine: the Development Concepts and Doctrine Centre was split, with the Futures and Concepts teams forming Defence Futures, and the Joint Doctrine team moving into the newly-formed Integrated Warfare Centre.

With the formation of the Military Strategic Headquarters under Defence Reform, further change has occurred that will have an impact on Joint Doctrine. Defence Futures has now moved out of Strategic Command into the Military Strategic Headquarters, leaving half of the Concepts team behind in Strategic Command. This new Joint Capability Concepts team will now be part of the Integrated Warfare Centre within Strategic Command, alongside the Joint Doctrine team.

So how will this affect output, what will be the impact on Joint Doctrine, and how does this affect the land domain? First, the Integrated Warfare Centre will now hold the levers to improve interoperability with its sister single-Service warfare centres and the UK's allies by fusing lessons, training, wargaming, innovation, simulation, experimentation, concepts and doctrine for the joint force. Whilst much of this will be delivered for the



joint forces within Strategic Command, the Integrated Warfare Centre will also deliver outputs pan-Defence, particularly through Joint Doctrine.

Despite the high-level structural changes, Joint Doctrine's outputs remain unchanged. It will continue to deliver joint operational-level doctrine for the whole of Defence, albeit with the additional responsibility for oversight of NATO and national tactical-level joint doctrine. Joint Doctrine adopted the 'NATO

first wherever possible' policy in 2013 and continues to lead the way in interoperability with the UK's NATO allies. This approach has only been enhanced following the release of the Strategic Defence Review.

Joint Doctrine will continue its close relationship with the Land Warfare Centre to deliver coherence between operational-level joint and tactical land doctrine, including in the production of *Allied Joint Publication-3.2: Allied Joint Doctrine for Land Operations*.

Going forward we should all see a significant improvement in interoperability resulting from the sum of the changes outlined above; this is the primary purpose of doctrine.

Since the last edition, four revised doctrine publications have been promulgated:

Allied Joint Publication-2.2, *Allied Joint Doctrine for Counter-intelligence and Security (Edition B Version 1)* was published in April 2025.

Allied Joint Publication-3.1, *Allied Joint Doctrine for Maritime Operations (Edition B Version 1)* describes the fundamentals, command and control, and planning considerations of maritime operations throughout the continuum of competition. It

also provides an overview of the contribution of maritime forces in joint operations. *Allied Joint Publication-3.1* is written for the joint force commander, the maritime component commander, subordinate commanders, adjacent component commanders, and their staffs when conducting maritime operations. The doctrine also provides a useful framework for operations conducted by a coalition of partners and non-NATO nations and a reference for civilians operating with the maritime component.

Allied Joint Publication-3.7, *Allied Joint Doctrine for Recovery of Personnel in a Hostile Environment (Edition B Version 1)*

is the allied joint publication for the preparation, planning, execution and adaptation of personnel recovery across the full spectrum of Alliance missions, operations and, to some extent, activities in a hostile environment. It provides direction and guidance to NATO operational commanders and staffs with responsibilities related to the recovery of personnel. This publication will be published with UK national elements in due course.

Allied Joint Publication-3.19, *Allied Joint Doctrine for Civil-Military Cooperation (Edition B Version 1)*

is the NATO doctrine for the planning, conduct and assessment of civil-military cooperation (CIMIC) in the context of allied joint operations. It contains four chapters and a supporting annex that cover operations context, CIMIC fundamentals and principles, CIMIC as a joint function, and its staff function. This doctrine supports NATO's behaviour-centric and comprehensive approaches by showing how CIMIC helps understand the operating environment and coordinates military and non-military action through civil factor integration and civil-military interaction. This publication is intended as guidance for joint NATO staffs working with civil-military cooperation, although it may provide a useful framework for activities and operations conducted by



NATO members and partner nations. The document also serves as a reference for non-military actors who need to understand how NATO approaches civil-military cooperation and interaction. CIMIC staff, planners and those involved in operations requiring coordination between military forces and civilian organisations will find this publication particularly relevant to their work.

Listen up! To make doctrine more accessible and engaging, the Joint Doctrine Team have published an audiobook version of NATO's capstone publication – *Allied Joint Publication-01, Allied Joint Doctrine*. As with all Joint Doctrine multimedia products – videos and executive summaries included – the audiobook is designed to complement the main publication. It brings to life key tenets of our doctrine through expert narration, enhancing your comprehension and appreciation of the complexities of modern military operations. The audiobook contains the primary NATO content and therefore does not feature UK national elements. It has been produced in

an MP4 format and features closed captions in English, as well as graphics that feature in the publication. Listeners can also benefit from using the section indicators on the video progress bar to help navigate to specific chapters. The recording can be accessed via Defence Futures YouTube channel and features within the *Allied Joint Publication-01* publication page on the Defence intranet.

The Land Warfare Centre Warfare Branch recently published the following media.

Operation Cabrit Handbook

Intended as a battlegroup-level tactical guide to warfighting and operating in Estonia. The handbook is designed to support the full pathway of a deployment, through force generation and preparation, operating and training once in theatre and, when/if necessary, key knowledge for warfighting. It occupies the space between published doctrine (Army Field Manuals, etc.) and individual battlegroup standard operating instructions. As such the information is deliberately designed to be applicable to any and all battlegroups that rotate through the operation.

All Arms Tactical Aide Memoire Slate Cards

A printable set of cards to aid personnel in the field in completing routine R2. The updated deck includes revised MIST(AT), jamming and counter-UAS cards.

Russian Recce Strike Complex

A video examining the Russian approach to recce strike which explains its capabilities: [akx.sps.ahe.r.mil.uk/sites/akx/warfare/bringing-doctrine-to-life/russian-tactical-doctrine-films#](https://sps.ahe.r.mil.uk/sites/akx/warfare/bringing-doctrine-to-life/russian-tactical-doctrine-films#)



"THE PURPOSE OF THE BRITISH
ARMY IS TO PROTECT THE UNITED
KINGDOM BY BEING READY TO
FIGHT AND WIN WARS ON AND
FROM THE LAND."



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