

SECURING UK DEFENCE PROCUREMENT TO MEET 21ST CENTURY CHALLENGES FROM PRESENT THREATS

BY DR STEPAN STEPANENKO



**GLOBAL
BRITAIN
PROGRAMME**

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By Dr Stepan Stepanenko

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GLOBAL BRITAIN PROGRAMME

About the Global Britain Programme

The **Global Britain Programme** is a research programme within The Henry Jackson Society that aims to educate the public on the need for an open, confident and expansive british geostrategic policy in the twenty-first century, drawing off the united Kingdom's unique strengths not only as an advocate for liberalism and national democracy, but also a custodian of both the european and international orders.

Executive Summary

This research brief argues for a more targeted approach to UK defence procurement that is determined by analysis of past conflicts and readiness potential of the British Army for a European deployment or assistance to allied states.

The ongoing Russian invasion of Ukraine has highlighted the detrimental negligence of the British military and its strategy in the face of a European foe that was prepared to turn a post-cold war standoff into a hot war. With the UK focusing on the Middle East and North Africa (MENA) region and deployment in geographic and climatic conditions that do not meet the operational requirements for equipment in a European near peer engagement, there are accounts of the British military being spread too thin.

In light of the aforementioned limitation on the Ministry of Defence and developments in East Asia, bearing in mind the Chinese threat of annexing Taiwan, this paper looks at the following conditions of a European engagement:

- Diplomatic options and frameworks to which the UK is a signatory
- Budgetary constraints of the Ministry of Defence
- Successes and failures of large European conflicts in the 21st century
- Limitations, successes and potential for improvement of selected key military equipment.

The culmination of the paper is a recommended course for the Ministry of Defence that utilises current resources and creates the potential for deployments to engage critical targets of the potential enemy in a near peer encounter as well as having the reach to support the deployment of friendly and allied states.

Abbreviations

AS90	Artillery System for the 90s
CAT (vehicle)	Carrier, Ammunition, Tracked vehicles
CSTO	Collective Security Treaty Organization
ERA	Explosive Reactive Armour
EU	European Union
FCDO	Foreign, Commonwealth and Development Office
GDP	Gross Domestic Product
GMLRS	Guided Multiple Launch Rocket System
HE	High Explosive
HESH	High-Explosive Squash Head
HIMARS	High Mobility Artillery Rocket System
IPAP	Individual Partnership Action Plan
JEF	Joint Expeditionary Force
MANPAD	Man-portable air-defence system
MENA	Middle East and North Africa
MLRS	Multiple Launch Rocket System
MoD	Ministry of Defence
NATO	North Atlantic Treaty Organization
NGO	Non-governmental organisation
NLAW	Next generation Light Anti-tank Weapon
OSCE	Organization for Security and Co-operation in Europe
RUSI	Royal United Services Institute
SDR	Strategic Defence Review
SDSR	Strategic Defence and Security Review
UAV	Unmanned Aerial Vehicle
UK	United Kingdom
US	United States of America

Research Brief

24 February 2022 was the beginning of the first military conflict that has the real possibility of developing into a nuclear strike on European soil. While the war in Ukraine continues using conventional weapons, the world remains at the mercy of those who may be required to carry out the faithful, and possibly final, command.¹ Before such a possibility has a chance to develop, the British Government, as a keystone of security for the European democratic community, has a duty to deploy a conventional defensive plan to deter further aggression and reverse the gains of Russia in Ukraine. At the forefront of this plan must be a robust defence procurement policy.

The Chief of the UK General Staff, General Sir Patrick Sanders, has stated that the British Armed Forces now view Russia as the main opponent and are focused on the Eastern European state.² At the Royal United Services Institute (RUSI) Land Warfare Conference 2022, the General said that Russia presents “a clear and present danger that was realised on 24th February when Russia used force to seize territory from Ukraine, a friend of the United Kingdom. But let me be clear, the British Army is not mobilising to provoke war – it is mobilising to prevent war.”³ This well-meaning rhetoric does not address the fact that Russia’s continuous use of force began in 2014 and the UK response was lacking for close to eight years. Moreover, the prevention of war is no longer feasible as it has already begun. The British Army, and the British Government, need to face up to years of inactivity and plan to win, not prevent, a war in which Ukraine may be but one theatre.

A Ukrainian military victory would appear impossible. Over the course of the past eight years the Ukrainian military has undergone substantial transformation to elevate it to a fighting force,⁴ away from a demoralised and underequipped military akin to the Russian force on New Year’s Eve of 1995 and the attack on Grozny. Despite the change, the Ukrainian forces are outnumbered and outgunned. Many individual soldiers and units still rely on public donations for the supply of necessary lifesaving protective equipment.⁵ Months of conflict have left the Ukrainian Army devoid of fresh and experienced troops⁶ able to carry a decisive offensive. At the same time, the sheer manpower and equipment reserves, even if outdated, set the Russian forces as a dangerous aggressive military power in a low-tech war.

A Ukrainian military victory is possible with unwavering and extensive support from a more technologically advanced state that is currently at peace and is capable of providing arms in exchange for the security and safety of its own citizens. Then Prime Minister Boris Johnson said, “Unless we get the right result in Ukraine, Putin will be in a position to commit further acts of aggression against other parts of the former Soviet Union, more or less with impunity,

¹ Crispian Balmer, “Factbox: What is the chain of command for a potential Russian nuclear strike?” *Reuters*, 21 April 2022, <https://www.reuters.com/world/europe/what-is-chain-command-potential-russian-nuclear-strike-2022-04-21/>.

² Edward Lucas, “Our overstretched military is out of ammo”, *The Times*, 4 July 2022, <https://www.thetimes.co.uk/article/our-overstretched-military-is-out-of-ammo-3mrp5pn3t>.

³ General Sir Patrick Sanders, “The Chief of the General Staff General Sir Patrick Sanders’ speech at the RUSI Land Warfare Conference 2022”, Ministry of Defence, 28 June 2022, <https://www.gov.uk/government/speeches/chief-the-general-staff-speech-at-rusi-land-warfare-conference>.

⁴ Liam Collins, “In 2014, the ‘decrepit’ Ukrainian army hit the refresh button. Eight years later, it’s paying off”, *The Conversation*, 8 March 2022, <https://theconversation.com/in-2014-the-decrepit-ukrainian-army-hit-the-refresh-button-eight-years-later-its-paying-off-177881>.

⁵ Johannes Pleschberger, “‘Half of Ukraine’s soldiers wear crowd-funded body armor’”, *CGTN*, 14 July 2022, <https://newseu.cgtn.com/news/2022-07-08/An-army-of-volunteers-supplies-Ukraine-s-military-with-gear-1btTuAXFCUM/index.html>.

⁶ Sarah Habershon, Rob England, Becky Dale and Olga Ivshina, “War in Ukraine: Can we say how many people have died?” *BBC News*, 1 July 2022, <https://www.bbc.co.uk/news/world-europe-61987945>.

that will drive further global uncertainty, further oil shocks, further panics and more economic distress for the whole world.”⁷ Supporting allies in the fight against expansionism and ethnic cleansing⁸ is in the political and economic interests of Britain. It needs to protect its borders and markets in light of the global disorder in the petrochemical and food supply markets created by the conflict; it also needs to be aware of the dangers of excessive quantities of weapons potentially seeping out of the conflict and into the black market, together with the more existential threat of normalising territorial acquisition through warfare.

The United Kingdom has a historic opportunity and obligation to recognise the conflict in Ukraine as a fight with absolute evil. The stage is set for a greater European intervention in the conflict through the supply of the extraordinary quantities of weaponry required for the Ukrainian war effort and a crippling strike on the Putin regime. This is made especially pertinent as the US, so far the largest supplier of military aid to Ukraine, is preoccupied with cyclical electoral turmoil and an increasingly vocal call to shift the attention of US foreign military aid to the Indo-Pacific. Support from the technological and economic potential of the UK, applied through the appropriate use of existing military potential, and the inspirational will and determination of the Ukrainian people, are enough to quash Russian aggression in Europe.

The UK needs to take heed of the lessons from the current war, together with past conflicts in Europe, when establishing a military procurement and forward planning policy for national, allied and European defence. Even with a substantial upper hand in technological capabilities when facing a (inappropriately named) near peer force, there needs to be a long-term strategy in supply and procurement that would ensure continued successful deployment of UK forces in Europe at the point of need.

This paper examines the current state of the British Ministry of Defence (MoD) capabilities in a potential European conflict and the historic trends in defence budgets; looks at foreign policy integration as an element of MoD and national security operations; analyses 21st-century European conflicts for lessons; and presents suggestions on MoD procurement for the near future, as well as a longer-term strategy.

⁷ Sophie Morris, “UK to spend 2.5% of GDP on defence by 2030, Boris Johnson announces”, *SKY News*, 30 June 2022, <https://news.sky.com/story/uk-to-spend-25-of-gdp-on-defence-by-2030-boris-johnson-announces-12643124>.

⁸ Kristina Hook, “Why Russia’s War in Ukraine Is a Genocide”, *Foreign Affairs*, 28 July 2022, <https://www.foreignaffairs.com/ukraine/why-russias-war-ukraine-genocide>.

Existing systems to counter Russian aggression

British reliance on NATO as a key aspect of national security considerations has been an aspect of all Strategic Defence Reviews, with article 5 of the North Atlantic Treaty and allied operations featuring within the main framework of British defensive capabilities. A March 2022 Chatham House commentary went as far as to say that government policy, as expressed through the Integrated Review, is “predicated on the UK ‘free-riding’ on the US commitment to NATO while deferring many of its defence needs to the second half of this decade at the earliest”.⁹ The UK needs to shift from a subordinate position of reliance on the US to other, more localised, partnerships and accept greater personal responsibility.

The UK remains a prominent member of NATO and is engaged in a collective defence strategy, leading Baltic defence with Operation CABRIT. It saw the deployment of four battle groups, with four additional groups planned across countries on the western border of Ukraine. However, this deployment, only 4000-person strong,¹⁰ primarily concentrated in Estonia and Poland, is seen as insufficient by the UK’s Baltic allies. The Lithuanian decision to cut direct Russian rail connections with the Kaliningrad exclave for goods sanctioned in the European Union (EU), although since overturned, prompted aggressive rhetoric. The Baltic states see themselves as the future centre for Russian military aggression. A demand for a 50,000 strong garrison in the Baltics¹¹ is the understandable response, but one which Britain and Operation CABRIT cannot currently sustain.

Britain is also the founding and leading member of the Joint Expeditionary Force (JEF). This rapid response force is comprised of NATO members Denmark, Estonia, Iceland, Latvia, Lithuania, the Netherlands and Norway, as well Sweden and Finland, who are yet to benefit from a full membership.

The UK Strategic Command states that the JEF “partnership is designed to complement other defence alliances, including NATO, and provide security and stability for Europe with the potential to deploy worldwide”.¹² In a 2012 speech, two years before JEF was fully established, General Sir David Richards, then Chief of the Defence Staff, presented the core principles for the future of the British Armed forces and the JEF as:

- a. act jointly and with allies, but able to act alone
- b. be well equipped, but not tied to platforms
- c. adapt as the environment changes.”¹³

General Richards painted the picture of a mobile force, able to deploy in a variety of scenarios and having the logistical muscle and necessary equipment to do so: “With the capability

⁹ Andrew Dorman, Tracey German and Matthew Uttley, “Impact of Russia’s invasion on UK Integrated Review”, *Chatham House*, 24 March 2022, <https://www.chathamhouse.org/2022/03/impact-russias-invasion-uk-integrated-review>.

¹⁰ “NATO’s military presence in the east of the Alliance”, NATO, 8 July 2022, https://www.nato.int/cps/en/natohq/topics_136388.htm; “Operation CABRIT explained: Deterring Aggression in Estonia and Poland”, Ministry of Defence, 21 December 2020, <https://medium.com/voices-of-the-armed-forces/operation-cabrit-explained-deterring-aggression-in-estonia-and-poland-a4ad5b0e5518>.

¹¹ Chris Pleasance, “Baltic nations demand a new garrison of 50,000 NATO troops to stop Putin surrounding Lithuania, Estonia and Latvia with lightning assault through flashpoint ‘Suwalki Gap,’ as crucial summit begins”, *Mail Online*, 29 June 2022, <https://www.dailymail.co.uk/news/article-10964173/amp/NATO-Madrid-Baltic-nations-demand-new-garrison-50-000-troops.html>.

¹² Strategic Command, “Did you know the Joint Expeditionary Force (JEF) was established in 2014 and consists of 10 nations who operate and train together”, *LinkedIn*, https://www.linkedin.com/posts/strategic-command_did-you-know-the-joint-expeditionary-force-activity-6958783438267031552-3wgK.

¹³ General Sir David Richards, “Royal United Services Institute (RUSI). Speech by General Sir David Richards, Chief of the Defence Staff”, Ministry of Defence, 17 December 2012, <https://www.gov.uk/government/speeches/chief-of-the-defence-staff-general-sir-david-richards-speech-to-the-royal-united-services-institute-rusi-17-december-2012>.

to ‘punch’ hard and not be a logistical or tactical drag on a coalition, we will be especially welcomed by our friends and feared by our enemies.”¹⁴ However, this vision of the British military machine is far from the modern reality.

British membership of groups such as NATO, the JEF and the Organization for Security and Co-operation in Europe (OSCE) allows for a reliance on an existing and far-reaching diplomatic and defence cooperation network in Europe. These factors permit a focus of defence capabilities that enshrine British independence in defence at the same time as supporting allies in need.

Britain can seize the opportunity to be an engaged state, focusing on long-range capabilities that utilise technological breakthroughs to defeat an enemy before their deployment while removing the danger of battlefield clashes. The reality of British military deployment on the ground in Europe is that, no matter the size of the force involved, an attack on a British soldier is an attack on NATO and thus a cataclysmic event in a near peer engagement. Long-range capability limits the personnel exposure, thus facilitating a resolution of a conflict in favour of the democratic forces without direct NATO engagement, where possible.

The equipment makeup of the British forces reflects the narrative of NATO’s focus in the past 20 years, which has centred on warfare in desert regions of the Middle East. Therefore, the strategic position of the JEF, in the regions bordering the present threat of Russian aggression, makes it perfectly placed to be the response and containment force. In a statement, British Army Chief of the General Staff, Sir Patrick Sanders, said:

Given the commitments of the US in Asia during the 20s and 30s, I believe that the burden for conventional deterrence in Europe will fall increasingly to European members of NATO and the JEF. This is right in my view: taking up the burden in Europe means we can free more US resources to ensure that our values and interests are protected in the Indo-Pacific.¹⁵

Indeed, as the largest most financially and militarily committed member of NATO amongst European nations,¹⁶ and the largest force in the JEF, Britain can utilise its membership of both coalitions to deliver support for allies and strengthen its own military through procurement policy from allied states and facilitation of cross-operability of platforms.

¹⁴ Richards, “Royal United Services Institute (RUSI). Speech by General Sir David Richards, Chief of the Defence Staff”.

¹⁵ Sanders, “The Chief of the General Staff General Sir Patrick Sanders’ speech at the RUSI Land Warfare Conference 2022”.

¹⁶ Judy Dempsey, “Why Germany Is Undermining NATO Unity on Russia”, *Carnegie Europe*, 26 January 2022, <https://carnegieeurope.eu/2022/01/26/why-germany-is-undermining-nato-unity-on-russia-pub-86279>.

Political setting

The current Government paper that outlines the UK's defence policy is *Global Britain in a Competitive Age*. It integrates military and political strategy, aptly matching its colloquial name, the Integrated Review. The interlinked nature of the report, between diplomatic power and defence, was rightly pointed out by Major General James Cowan: "The inference behind the notion of integration was that the UK's security, defence, development and foreign policy assets would act in concert and not in isolation from one another."¹⁷ For Britain, the combined efforts of the MoD and the Foreign, Commonwealth and Development Office (FCDO) are what it takes to secure safety and national interests.

Historically, the Strategic Defence and Security Review (SDSR) has linked allied defensive operations to NATO membership and the protection offered under article 5. While this is a strong defensive position, having the might of the US forces to back any military moves by the UK, it means relying on the grace and capability of the Western "neighbour" to come to the rescue.

The UK cannot and will not be in a position to compete with the likes of the US on defence spending – a different approach is needed to its contribution. As was stated by Paul O'Neil of RUSI, "A new way of describing the scale of the UK's contribution to NATO is probably needed, one that avoids an emphasis on inputs (spending) and considers value, such as capability."¹⁸ The approach needs to be more focused on exploiting existing capabilities and the cost-effective use of resources in a strategic manner, providing defence through use of Britain's, limited, military potential and the more extensive diplomatic presence.

Further weakening British potential for international cooperation, the UK has resigned its seat at the table of EU cooperation. As one aspect of British defence considerations that is not dominated by budgetary constraints, a political network that facilitates military deployment is an essential aspect of Britain's defensive capabilities. Since Brexit, Britain's foreign policy has handicapped its defence capabilities. Paul O'Neil pointed out that although "NATO's military capability dwarfs that of the EU, the EU controls vital mechanisms allowing that capability to be used – such as the regulatory framework permitting the movement of people, ammunition and equipment, and the infrastructure specifications for roads, bridges and so on."¹⁹

The OSCE is another chance for the UK to use its membership of international bodies to secure its national defence. The UK is a signatory of the OSCE Helsinki Final Act, together with all but one European nation. The document presents a notion of collective security through shared responsibility. It reads: "Recognizing the indivisibility of security in Europe as well as their common interest in the development of cooperation throughout Europe and among selves and expressing their intention to pursue efforts accordingly..."²⁰ This sets out a vision of cooperation and interdependence between each member of the European community, referring to the geographical area rather than a political association, a vision that also does not set one state above another.

The egalitarianism and shared responsibility in defence is further supported by the Charter for European Security, or the Istanbul document of 1999. It reads: "Within the OSCE no State,

¹⁷ James Cowan, "The Ukrainian Crisis and the Integrated Review", RUSI, 9 March 2022, <https://rusi.org/explore-our-research/publications/commentary/ukrainian-crisis-and-integrated-review>.

¹⁸ Paul O'Neil, "The UK's Integrated Review at One Year – Fit for Purpose?" RUSI, 31 March 2022, <https://rusi.org/explore-our-research/publications/commentary/uks-integrated-review-one-year-fit-purpose>.

¹⁹ Ibid.

²⁰ "Conference on Security and Cooperation in Europe: Final Act", OSCE, 1 August 1975, <https://www.osce.org/files/f/documents/5/c/39501.pdf>.

group of States or organization can have any pre-eminent responsibility for maintaining peace and stability in the OSCE area or can consider any part of the OSCE area as its sphere of influence.”²¹ The signatory states, including Britain and the major EU states, also agreed to the Platform for Co-operative Security that obliged them to “Actively support the OSCE’s concept of common, comprehensive and indivisible security and a common security space free of dividing lines.”²² Britain can rely on these principles and use its diplomatic weight, together with its membership of defence alliances, to provide support for allied nations bordering the potential aggressor states while not being required to independently engage in field battles.

²¹ “Istanbul Document 1999”, OSCE, November 1999, <https://www.osce.org/files/f/documents/6/5/39569.pdf>, paragraph 8.

²² Ibid., paragraph 1.

Depletion of British Army capabilities

The British Army is suffering from supply and supply chain resilience issues resulting from years of underfunding and lack of purchases that led manufacturers to potentially discontinue certain lines of strategically important weapons production. The severity of the shortage has led some commentators, like *The Times*' Edward Lucas, to even contemplate the use of cluster munitions, before rebuking the suggestion.²³

The UK has been focused on Iraq, Afghanistan and desert warfare since the turn of the century. The training and procurement strategy has reflected this very focus. The last large-scale exercises by the British military, equivalent to or over a division deployment, were in Oman, in 2001.²⁴ Such an enormous period of time between large-scale training operations puts the UK at a distinct disadvantage when compared to the militaries it is expected to go up against, as Russia conducted regular training like for the Vostok exercises,²⁵ that continued, to a certain extent, even amidst a full-scale war on its eastern border.

The purchasing strategy of the UK has reflected the MENA focus. For instance, the Paveway IV guided bomb, in service since 2008, was used in Iraq and Syria²⁶ and is suited for targets in urban areas where civilian casualties must be minimised, but is less effective against the Russian tactics of mass armour deployment. While there is a need to maintain and update such systems, the UK must be prepared for deployment to face a numerically superior enemy, and to strike targeted blows that would neutralise the enemy's numerical advantage. This strategy requires smart, technologically advanced systems that come at a premium, compared to the dumb munitions of the Russian forces.

The British Army has placed a new order to replace the 5000 portable anti-tank systems it has donated to Ukraine and the depleted stock used during training, potentially including those used by the Ukrainian army recruits currently undergoing training at UK bases. The MoD funding, announced in November 2021, is apparently sufficient to cover the existing mounting costs of army replenishment and support for Ukraine. There is no current request to increase the financial support from the Treasury,²⁷ thought to be one of the largest remuneration packages among the European states given to their military for supporting Ukraine.²⁸ However, promised allocation 2.5% of the gross domestic product (GDP) to defence will not occur until 2030.²⁹

The war in Ukraine has shown the rapid depletion of munitions in a near peer battle scenario and the need to maintain adequate stocks irrespective of allied and cooperative deployment. The strength of the British military can be in its intelligent use of smart munitions and its long-range capabilities as well as its maintenance of extensive and robust supply chains that can reinforce the deployment of allied forces through provision of additional firepower from afar, expendable munitions and armaments.

²³ Lucas, "Our overstretched military is out of ammo".

²⁴ Ibid.

²⁵ "The Russian military will hold the Vostok-2022 [East-2022] military exercises and wants to 'practice' the use of troops", *Ukrainska Pravda*, 26 July 2022, <https://www.pravda.com.ua/eng/news/2022/07/26/7360305/>.

²⁶ Alex Walters, "The RAF's 'go-to weapon': What is the Paveway IV bomb?" *Forces.Net*, 19 October 2021, <https://www.forces.net/news/rafs-go-weapon-what-paveway-iv-bomb>.

²⁷ Larisa Brown, "Britain lacks ammunition to fight long war in Ukraine, says Ben Wallace", *The Times*, 23 June 2022, <https://www.thetimes.co.uk/article/britain-lacks-ammunition-fight-long-war-ukraine-ben-wallace-x7618lmb>.

²⁸ Harry Yorke and Larisa Brown, "UK's weapons stocks being hit by efforts to arm Ukraine", *The Sunday Times*, 3 July 2022, <https://www.thetimes.co.uk/article/uks-weapons-stocks-being-hit-by-efforts-to-arm-ukraine-g7c5g1kzw>.

²⁹ Lucas, "Our overstretched military is out of ammo".

Funding

Increasing the defence budget is not an option. Neither the economic potential of the UK nor the capability of the MoD to effectively utilise extensive additional funds is plausible due to the nature of military budget timelines that are subject to yearly overhaul in the Chancellor's budget, even with the current provisions of a lengthier support for the MoD.

An injection of cash beyond the planned budgets will spur spending on equipment that will require additional financial support, necessitating consistent increases year-over-year through the procurement life-cycle, both in technical support and personnel, which may not be deliverable on a budget that fluctuates with yearly resets, especially under changing governments.

Over the past decade, the funding allocated to the Ministry of Defence has not increased at the rate that would be expected by a ministry that is funded to meet growing international threats. The Defence Departmental Resources: 2021, provided by the MoD,³⁰ shows a discrepancy between the nominal and real value of funding, when adjusted to the prices of 2020/2021. The adjusted data shows that the £42,365 million spent by the Ministry of Defence was up by £146 million from the previous year but falls below the budget spending in 2011/2012 by £3,035 million and £6,563 million when compared to the figures for 2010/2011.

Defence spending and strategic focus of the UK has been the subject of criticism for the past decades. This can be traced through the responses to the main governmental output that determines the MoD strategy and budget, the Strategic Defence Review.

³⁰ "MoD Department Resources: 2021", MoD, 24 February 2022, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1056190/departmental_resources_2021.ods.

Budgeting in the Strategic Defence Review

In 1997, the newly elected Labour Government announced a Strategic Defence Review (SDR). This was the first major review of UK defence since the collapse of the Soviet Union. Even such a major global event did not spur an immediate reconsideration of resource allocation, with the SDR announced in 1998.

Preceding the review was an SDR research paper that set out some of the positions of the new government and offered options for consideration. It opened with criticism of previous Conservative government efforts, stating that they were “essentially Treasury-driven and lacked any strategic direction; in other words, the primary aim was to cut the defence budget without any regard for the enormous changes in European security arising from the collapse of the Warsaw Pact.”³¹

The review presented continued support for the major budgetary requirements of the MoD in regard to procurement, the Trident program and the Eurofighter, as although the Warsaw Pact was dissolved, the threat of the weapons in former member states remained.

The 1997 SDR Research Paper did make statements on reducing military spending. General descriptions of “modern procurement techniques”³² and “Smart Procurement”³³ added to the ideal of making the UK military a more fit for service force, yet, at their core, hid the uncomfortable truth of budget cuts. This meant a decrease in MoD spending equivalent to 0.2% following the first two years after the review, while the overall spend remained over the 2% NATO margin.³⁴ The arguments for the decline in defence spending were presented through non-military or defence related projects: governmental commitments to health, education and aid spending increases. The government was happy to fund these lines of expenditure at the cost of national security. The foreign aid aspect of the proposal did, however, go with the idea of a more integrated foreign policy and defence approach to national security. That said, 1997 alone saw a cash re-routing of “£168m from the defence budget to Department of Health”.³⁵

The 1998 SDR was an opportunity for the New Labour Government to pin the blame for any MoD issues squarely on the Conservatives: “Since 1990, defence expenditure has fallen by some 23% in real terms and our forces have been cut by nearly a third.”³⁶ The SDR set out a strategy to rework the procurement policy for major and minor projects, and identified life-time support as a necessity for MoD projects.³⁷ The SDR’s insistence that “From a defence point of view a healthy and competitive industrial base is crucial to ensuring that we will be able to continue to procure the right equipment for our forces at competitive prices”³⁸ was budget-led. It appears that the statement was positioned to provide an illusion of securing a healthy supply line for the UK Forces as well as setting down the path of looking abroad for supplies, yet avoiding the glaring issue that cost considerations will lead to quality, delivery and other issues.

The SDR White Paper was published in 1998 after presentation of the SDR in Parliament; it offered further commentary as well as reviewing the reception of the SDR. The strategic

³¹ Tom Dodd, “The Strategic Defence Review. Research Paper 97/106”, House of Commons Library, 23 October 1997, <https://researchbriefings.files.parliament.uk/documents/RP97-106/RP97-106.pdf>, p.5.

³² Ibid., p.16.

³³ Ibid., p.17.

³⁴ Ibid., p.18.

³⁵ Ibid., p.19.

³⁶ “Strategic Defence Review 1998”, HM Government, July 1998, paragraph 11.

³⁷ Ibid., paragraph 156-158.

³⁸ Ibid., paragraph 162.

focus of the then Labour Government was reiterated on the first pages: “The Government recognises that the collapse of the Warsaw Pact means that there is no longer a direct military threat to the UK.”³⁹

Following the 1998 publication, and for a prolonged period, the British Armed Forces were operating on largely outdated principles, incapable of providing adequate responses in the face of the ever-changing global threats. In 2008, a House of Commons research paper described the increased defence spending by the then Labour chancellor Alistair Darling as “insufficient to meet the future funding requirements of the Department [of Defence]”.⁴⁰ The very same year, and during the culmination of the British presence in Iraq, the Ministry of Defence was also criticised for having a deficit of 5,790 soldiers.⁴¹

A new SDSR was published under the coalition government in 2010; it in turn put the blame for the state of the military squarely on the previous Labour government and made savings a priority. “The difficult legacy we have inherited has necessitated tough decisions to get our economy back on track. Our national security depends on our economic security and vice versa. So bringing the defence budget back to balance is a vital part of how we tackle the deficit and protect this country’s national security.”⁴² The document reflects a continuous decline in available MoD funds from 2007 to 2010, which was at the time hidden behind an increase in spending as a percentage of the GDP.

Partly compensating for the financial turmoil that began in 2008, the 2010 SDSR set out on a path to a leaner military to compensate for previous poor estimates in spending. “But we are delivering this commitment in the context of inherited defence spending plans that are completely unaffordable. There was an unfunded liability of around £38 billion over the next 10 years. That is more than the entire Defence budget for one year.”⁴³ However, such drastic reductions of past plans did not come without a cost to the Army’s potential as “£20 billion of this [over-commitment] is related to unaffordable plans for new equipment and support.”⁴⁴

Much of the world at the time of the 2010 SDSR still viewed Russia as a benevolent menace. The 2010 NATO summit statement “invited Russia to cooperate” and stated a desire for a “true strategic partnership between NATO and Russia”.⁴⁵ This attitude of the Government was surprising, considering the 2008 war between Georgia and Russia.

In the next SDSR, completed five years later, a number of outputs highlighted the change in direction of the threats facing Britain and the funding issues that surrounded them. The 2015 *Re-thinking Defence To Meet New Threats* paper by the House of Commons Defence Committee⁴⁶ came out over a year after the annexation of Crimea and presented a

³⁹ Tom Dodd and Mark Oakes, “The Strategic Defence Review White Paper. Research Paper 98/91”, Internal Affairs and Defence Section, House of Commons, 15 October 1998, <https://researchbriefings.files.parliament.uk/documents/RP98-91/RP98-91.pdf>, Summary.

⁴⁰ Claire Taylor, Tom Waldman and Sophie Gick, “British defence policy since 1997: background issues. Report. Research Papers, 08/58”, House of Commons Library, London, 27 June 2008, Summary. <https://researchbriefings.files.parliament.uk/documents/RP08-57/RP08-57.pdf>.

⁴¹ James Kirkup, “British Army has too many officers and not enough rank-and-file soldiers”, *The Telegraph*, 28 August 2008, <https://www.telegraph.co.uk/news/newstoppers/onthefrontline/2638067/British-Army-has-too-many-officers-and-not-enough-rank-and-file-soldiers.html>.

⁴² “Securing Britain in an Age of Uncertainty: The Strategic Defence and Security Review,” HM Government, October 2010, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/62482/strategic-defence-security-review.pdf, p.3.

⁴³ *Ibid.*, p.15.

⁴⁴ *Ibid.*, p.31.

⁴⁵ “Lisbon Summit Declaration”, NATO – Official text, 20 November 2010, https://www.nato.int/cps/en/natolive/official_texts_68828.htm.

⁴⁶ “Defence – Tenth Report: Re-thinking defence to meet new threats”, HM Government, 17 March 2015, <https://publications.parliament.uk/pa/cm201415/cmselect/cmdfence/512/51202.htm>.

different rhetoric, identifying Russia as a threat to be taken into account in the forthcoming SDSR of 2015.

The report was food for thought and contained analysis that prompted suggestions that the looming SDSR may be more budget driven, following the government's austerity rhetoric, rather than strategically directed to secure Britain in the face of future potential threats.⁴⁷

The *National Security Strategy and Strategic Defence and Security Review 2015*⁴⁸ was filled with rhetoric of global presence and stronger ties with NATO and other allies. Despite the annexation of Crimea and the then ongoing war in Ukraine, the SDSR identified terrorism and the role of China as the key focus of the British Government and the Armed Forces⁴⁹ but did concede that "we cannot rule out the possibility that it [Russia] may feel tempted to act aggressively against NATO Allies".⁵⁰ Nevertheless, and while stating a threat that emanated from Russia, it ruled that "we will seek ways of cooperating and engaging with Russia on a range of global security issues, such as the threat from ISIL".⁵¹

Budgeting was a consideration for the SDSR but the government at the time portrayed an image of robust support to the military. The SDSR outlined that the government would continue to meet the NATO target to invest 2% of GDP on defence, which will allow us to:

- Increase the defence budget in real terms every year of this Parliament.
- Deliver our commitment to maintain the size of the regular Armed Forces and to not reduce the Army to below 82,000, and increase the Royal Navy and Royal Air Force by a total of 700 personnel.
- Deliver our commitment to increase the equipment budget by at least 1% in real terms and continue to meet the NATO target to spend 20% of the defence budget on researching, developing and procuring new equipment.
- Establish a new Joint Security Fund, from which the Ministry of Defence will draw.⁵²

The SDSR immediately came under fire for proposing funding through efficiency cuts in governmental departments; a reported disarray in presenting a strategy on naval capabilities; and a failure to deal with a troop number decrease of 20,000 that occurred under David Cameron's conservative government up until that point.⁵³

The Defence Reviews of the past two and half decades all share a common trait of offloading the blame of MoD spending and readiness onto previous governments, although Tony Blair's and Gordon Brown's governments creatively avoided repeating the blame outlined in the 1998 SDR by not producing another review for 12 years. While beneficial to the perception of Labour as a competent force in military organisation, the lack of an adequate review had a drastic impact on the British Army. With the military lacking soldiers and funds, and with equipment

⁴⁷ Simon J Smith, "Should the UK spend more on defence?", *The Conversation*, 8 June 2015, <https://theconversation.com/should-the-uk-spend-more-on-defence-42663>.

⁴⁸ "National Security Strategy and Strategic Defence and Security Review 2015. A Secure and Prosperous United Kingdom," HM Government, November 2015, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/478933/52309_Cm_9161_NSS_SD_Review_web_only.pdf.

⁴⁹ *Ibid.*, p.9-10.

⁵⁰ *Ibid.*, p.18.

⁵¹ *Ibid.*, p.18.

⁵² *Ibid.*, p.27.

⁵³ Maria Eagle, "The Army shed 20,000 soldiers on David Cameron's watch - and the Defence Review shows he will continue to fail us on security", *The Independent*, 24 November 2015, <https://www.independent.co.uk/voices/the-army-shed-20-000-soldiers-on-david-cameron-s-watch-and-the-defence-review-shows-he-will-continue-to-fail-us-on-security-a6747096.html>.

focused on warfare that was becoming less relevant, not having a timely review, together with the 2008 financial crash and the repercussions in the form of falling GDP growth and a rising national debt, made remedying the situation challenging.

In 2019, although elected on a manifesto that promised robust economic support for the British military, the Conservatives set about cutting the MoD budget and jobs. Under Boris Johnson, the Tories promised to “exceed the NATO target of spending 2 per cent of GDP on defence and increase the budget by at least 0.5 per cent above inflation every year”.⁵⁴ These promises came just a few years before a plan to cut 10,000 personnel,⁵⁵ limiting the Army to its smallest size since 1714.⁵⁶ In June 2022, and already some four months into supporting Ukraine with deliveries of weapons, Boris Johnson promised 2.5% of GDP to go towards the military, by 2030.⁵⁷ However, an upward trajectory of MoD personnel and equipment levels, returning to pre-cut levels is still to be announced.

The number of service personnel has reflected the overall approach to the MoD by successive governments. The recently released UK defence personnel statistics⁵⁸ show that the strength of the UK military has been volatile if we include trained and untrained personnel. However, if only those who passed the phase 2 training are considered, or those who have gone beyond the basic training and have gained a specialist role, the military requirements have heavily outnumbered the army strength for the past ten years. In actual fact, not counting a very brief period prior to the Armed Forces Redundancy Programme, which cut 12,130 staff, the military has been permanently understaffed in skilled and trained personnel as per their own statistics.⁵⁹

Currently, the British Army trained personnel level is below the 90,000 capacity of Wembley Stadium. Had the UK needed to conduct an operation matching the magnitude of deployment in Northern Ireland, which reached 21,000 troops at its peak, it would take up nearly 30% of the trained personnel and, considering the need for rotation, would make the army incapable of engaging in the nation’s defence from other directions. The budget is but one consideration when it comes to the number of personnel and equipment – political will is the other, more valuable, currency.

Following the announcement of Boris Johnson’s departure from the post of Prime Minister, Liz Truss, then a PM hopeful, vowed in her election promises to raise the MoD funding to 3% of GDP by 2030⁶⁰ and the Conservatives have already fixed the budget for the remainder of this Parliament in the 2021 Autumn Budget and Spending Review. Analysis from the Institute for Fiscal Studies showed that such a commitment would not only require “a further four years of 6% real-terms budget increases” but would also bring the UK defence spending to its highest since 1994.⁶¹ The feasibility of such promises remains to be proven.

Politicians’ reluctance to allocate more money to the MoD was reflected in Rishi Sunak’s position, when a candidate for Johnson’s job. Mr Sunak was the Chancellor who oversaw the

⁵⁴ “Get Brexit Done. Unleash Britain’s potential. The Conservative and Unionist Party Manifesto 2019”, Conservative Party, p.53.

⁵⁵ Danielle Sheridan, “British Army to shrink by nearly 10,000 troops over the next decade”, *The Telegraph*, 12 February 2021, <https://www.telegraph.co.uk/news/2021/02/12/british-army-shrink-nearly-10000-troops-next-decade/>.

⁵⁶ “Defence review: British army to be cut to 72,500 troops by 2025”, *BBC News*, 22 March 2021, <https://www.bbc.co.uk/news/uk-56477900>.

⁵⁷ Morris, “UK to spend 2.5% of GDP on defence by 2030, Boris Johnson announces”.

⁵⁸ Esme Kirk-Wade and Noel Dempsey, “UK defence personnel statistics”, House of Commons Library, 23 August 2022, <https://commonslibrary.parliament.uk/research-briefings/cbp-7930/>.

⁵⁹ *Ibid.*, p.9.

⁶⁰ Jessica Elgot, “Truss targets Mordaunt with pledge to raise UK defence spending”, *The Guardian*, 19 July 2022, <https://www.theguardian.com/politics/2022/jul/19/tory-leadership-truss-mordaunt-uk-defence-spending-pledge>.

⁶¹ Stuart Adam, Robert Joyce, Isabel Stockton, Tom Waters and Ben Zaranko, “Tax and spending policies of Conservative leadership contenders”, Institute for Fiscal Studies, 21 July 2022, <https://ifs.org.uk/publications/16135>.

funding for the MoD for a little under two years, at the same time as the MoD Spending Review was being put together. He was unlikely to overturn his existing record, which stands at the 2% of GDP rate, although he did agree to a £24 billion investment into the MoD over four years. The mood of Rishi Sunak's defence plan can be summarised by his quote in a recent *Mail on Sunday* article: "Let's not be spending any more money — let's make sure the money we're spending is spent really well."⁶² It would have been unlikely for the MoD to benefit from a windfall on his watch, as stated by the Secretary for Defence Ben Wallace.⁶³

In the current situation, with a Ministry of Defence that depends on the political frivolity of campaign promises, one would be wise to focus on existing holdings, maintenance and planning for the future within the parameters of current operating possibilities. The MoD is not currently in a position to embark on an extravagant and far-reaching purchasing spree on restructuring, considering the funding available. In this regard, consolidation of existing assets, targeted acquisition of systems and weaponry that are of highest impact, and utilisation of economic and diplomatic powers may bring more benefit. The MoD has to make do, not though it being the optimum approach, but through lack of alternatives in the foreseeable future.

⁶² George Parker, "Rishi Sunak resists rise in defence spending despite war in Ukraine", *The Financial Times*, 20 March 2022, <https://www.ft.com/content/adf0b92d-861d-4d9f-b584-c401138b5232>.

⁶³ "Defence Secretary accuses Sunak of blocking 'vital' funds to his department", *Morning Star*, 29 July 2022, <https://morningstaronline.co.uk/article/b/defence-secretary-accuses-sunak-of-blocking-vital-funds-to-his-department>.

Supply issues

Upgrades and new acquisitions of military equipment are an essential aspect of maintaining a military fit to face modern challenges. However, as Paul O'Neill of RUSI points out, "Russia's experience in Ukraine offers an insight into the problem of prioritising equipment modernisation without appropriate investment in logistics, people and realistic operational training and exercises."⁶⁴

Maintenance is an issue for the British Army. Sir James Bucknall, the former commander of the NATO Allied Rapid Reaction Corps, was quoted in *The Times* saying that fewer than half of the reported 227 battle tanks of the British Army were deployable due to maintenance issues. "These fleets are sitting in central warehouses, and they are not being maintained. Armoured vehicles need to be maintained and run every day. The current whole fleet management system is akin to abandoning your car for a couple of years and expecting it to work perfectly when you climb back in it."⁶⁵

The situation is similar to the troubles facing the Russian Army following the attrition of their tanks in the war in Ukraine. Of the estimated 10,000 stored vehicles, Russia is expected to field less than a third, with the deployment of some units delayed by close to six months, by some estimates,⁶⁶ if indeed it is possible to use them for anything but spare parts. New satellite imagery shows much of Russia's stored armour to be hollowed-out shells, with assembled machines likely lacking batteries and communication systems.⁶⁷

While the UK's stocks of stored machinery are not expected to be in a similar state to the Russian supplies, Britain is facing a different issue – one of compatibility. A fast resupply of battle-damaged equipment is possible via borrowing resources from allies. It has been suggested that equipment from the Belarusian Army can be used to resupply the Russian military.⁶⁸ The UK can and should take a leaf out of this book and look to operate systems that share parts and ammunition with other NATO forces.

However, while the UK's artillery systems are cross-compatible with rounds from other NATO armies, and some multiple launch rocket system (MLRS) rockets and missiles can be used with the British-operated M270 platform, this is not the case across the British Army platforms. The UK Challenger 2 tank, and its L30 rifled gun with a penchant for high-explosive squash head (HESH) rounds, remains the standalone immovable colossus in cross-compatibility with NATO forces. It is thought that the forthcoming Challenger 3 will remedy this with a smooth bore gun.⁶⁹

The war in Ukraine has also exposed the danger of maintaining a low quantity of stock of expendable arms. Britain reportedly sent over 6,900 units of the next-generation light anti-

⁶⁴ O'Neil, "The UK's Integrated Review at One Year – Fit for Purpose?".

⁶⁵ Yorke, "UK's weapons stocks being hit by efforts to arm Ukraine".

⁶⁶ Serina Sandhu, "Russian tanks likely to be in a 'poor state' and may not be usable in Ukraine, say defence experts", *iNews*, 24 May 2022, <https://inews.co.uk/news/world/russia-tanks-storage-likely-poor-state-not-usable-ukraine-defence-experts-1646167>.

⁶⁷ "New Google Satellite images destroyed the Kremlin myth of 10 thousand tanks behind the Urals" [Translated from Ukrainian: Нові супутникові знімки Google зруйнували міф Кремля про 10 тисяч танків за Уралом], *Defence Express*, 19 April 2022, https://defence-ua.com/weapon_and_tech/novi_suputnikov_i_znimki_google_zrujnuvali_mif_kremlja_pro_10_tisjach_tankiv_za_uralom-7020.html.

⁶⁸ "Russia Has a Fast Scenario to Recover Tank Losses: What the Armed Forces of Ukraine Should Be Ready For", *Defense Express*, 1 June 2022, https://en.defence-ua.com/analysis/russia_has_a_fast_scenario_to_recover_tank_losses_what_armed_forces_of_ukraine_should_be_ready_for-3146.html.

⁶⁹ Ben Barry, "British Army tank upgrade: weighing the prospects", The International Institute for Strategic Studies, 6 August 2020, <https://www.iiss.org/blogs/military-balance/2020/08/british-army-tank-upgrade-weighing-the-prospects>.

tank weapon (NLAW) anti-armour portable missiles to Ukraine. It has also provided over 16,000 shells for artillery pieces, with a further 50,000 on the way.⁷⁰ As pointed out by the Chief of the Defence Staff Admiral Sir Tony Radakin, replacing these weapons can take years.⁷¹

The issue that the UK faces now is not replacement of the armaments *per se*, but a rearmament to keep up with the demand of the barrage required to keep the Russian forces from advancing further into Ukraine. A resupply effort needs to allow for prolonged support of Ukraine while also facilitating targeted surplus build-up of stock for potential deployment and other assistance to other allied nations. The nature and type of military stock required can be gauged through necessities in past conflicts but is also in need of a comprehensive study.

⁷⁰ “UK to send scores of artillery guns and hundreds of drones to Ukraine”, MoD, 21 July 2022, <https://www.gov.uk/government/news/uk-to-send-scores-of-artillery-guns-and-hundreds-of-drones-to-ukraine>.

⁷¹ Christopher McKeon, “Replacing UK’s weapons stockpiles could take ‘years’, says head of armed forces”, *The Independent*, 22 June 2022, <https://www.independent.co.uk/news/uk/admiral-chief-of-the-defence-staff-ukraine-uk-armed-forces-government-b2106807.html>.

Focus on British equipment for the European theatre

The budgetary constraints of the MoD outlined above require a focus shift to the existing capacity and the optimum utilisation of existing systems before embarking on a purchasing spree. What's more, placement of orders to replenish existing stock, as well as embarking on programs to update and upgrade equipment at the same time as the rest of the world, will have a knock-on effect on delivery schedules and costs, and the resultant capacity of the Armed Forces to deliver an effective service of protecting British national interests.

In this regard, it is necessary to consider the operational capabilities of the existing British military hardware in the context of past European conflicts. The focus on MENA and counter-insurgency warfare outlined above has placed the British military in a state where it is incapable of waging a prolonged land war with a near peer enemy. However, in light of the aforementioned diplomatic strategies and joint task forces with other European nations, the UK is capable of utilising some of its existing military potential in a manner devastating to the potential enemy, while taking the time to source additional armaments and learn from previous conflicts.

Lessons from the 2020 Nagorno-Karabakh war

One way to gauge operational capabilities is through the comparison of how equipment has performed in recent conflicts. Other than the ongoing war in Ukraine, the most recent war on European soil was the 2020 conflict between Azerbaijan and Armenia over the Nagorno-Karabakh region.

The main supplier of armoured equipment, artillery and multiple launch rocket systems to both armies prior to the war was the Russian Federation. One enormous area of difference between the two armies was the funding. As pointed out by Colonel Zhirayr Amirkhanyan of the US Naval Postgraduate School and Chief of Defence Policy Planning Branch at the Ministry of Defence of Armenia, the Armenians spent marginally more of their GDP on the military in the twenty-year run-up to the conflict, 3.65% vs 3.44%.⁷² However, the Armenian GDP is circa four times smaller than that of Azerbaijan. This difference in the real value of military investment, together with the allocation of spending priorities, played a crucial role in deciding the outcome of the conflict.

In the run-up to the war, Armenia and Azerbaijan took diametrically opposing paths in terms of military strategies. Analyst Michael Kofman stated that, “Armenia was disadvantaged from the outset given the quantitative and qualitative superiority on the Azerbaijani side”.⁷³ Indeed, Armenia visibly rested on the laurels of its success in the First Nagorno-Karabakh War, using the same tactics and maintaining a similar stock of armaments, while Azerbaijan pursued an aggressive modernisation of its armed forces, with imported armaments from Turkey, Russia and Israel dominating its new doctrine.

The Armenians were outgunned and out-rocketed when it came to artillery battles. Azerbaijan could field more MLRS systems and more towed and self-propelled artillery, and use newer systems than the Armenians.⁷⁴ The only role reversal occurred in the long-distance missiles. Prior to the 2016 purchase of Iskander-M systems from Russia,⁷⁵ Armenia, like Azerbaijan, was reliant on the Soviet era stock of Tochka-U rockets, with an estimated accuracy of 150-70 metres, and the very outdated R-17 Elbrus,⁷⁶ dating from the 1960s to the late 1980s. Their use was reported from the early days of the 2020 conflict,⁷⁷ although with limited success. With Azerbaijani forces lacking the long distance and precision capabilities of Iskander, their tactical use on the battlefield by Armenia could have eliminated the threat of Azerbaijani MLRS attacks, caused severe damage to enemy oil producing and other infrastructure, and decimated command posts deep within Azerbaijan. However, the outcome of the conflict showed the very small impact that the Armenian Iskanders were able to make despite their \$70-100 million cost.⁷⁸

⁷² Zhirayr Amirkhanyan. “A Failure to Innovate: The Second Nagorno-Karabakh War”, *The US Army War College Quarterly: Parameters* 52, no.1 (2022): p.123.

⁷³ Michael Kofman, “A Look at the Military Lessons of the Nagorno-Karabakh Conflict”, *Russia Matters*, 14 December 2020, <https://www.russiamatters.org/analysis/look-military-lessons-nagorno-karabakh-conflict>.

⁷⁴ Leonid Nersisyan, “Confrontation: what is known about the combat potential of the Armed Forces of Armenia and Azerbaijan” [Translated from Russian: Противостояние: что известно о боевом потенциале ВС Армении и Азербайджана], *Izvestiya*, 28 September 2020, <https://iz.ru/1066374/leonid-nersisian/protivostoiianie-cto-izvestno-o-boevom-potentziale-vs-armenii-i-azerbaidzhana>.

⁷⁵ Nikolai Litovkin, “Armenian president: We had to buy Iskander-M missiles from Russia”, *Russia Beyond*, 18 November 2016, https://www.rbth.com/defence/2016/11/18/armenian-president-we-had-to-buy-iskander-m-missiles-from-russia_648961.

⁷⁶ “Armenia shows double launch of ‘Elbrus’ on Azerbaijan” [Translated from Russian: Армения показала двойной пуск «Эльбрусов» по Азербайджану], *Reporter*, 28 October 2020, <https://topcor.ru/17108-armenija-pokazala-dvojnnoj-pusk-jelbrusov-po-azerbajdzhanu.html>.

⁷⁷ “Armenia has used tactical ballistic missile system ‘Tochka-U’”, Ministry of Defence of the Republic of Azerbaijan, 30 September 2020, <https://mod.gov.az/en/news/armenia-has-used-tactical-ballistic-missile-system-tochka-u-32450.html>.

⁷⁸ Daniel Ioannisyan, “The ‘Iskanders’ cost the Armenian budget 70-100 million USD: Union of Informed Citizens”, *Aravot*, 27 September 2016, <https://www.aravot-en.am/2016/09/27/181582/>.

The purchase and subsequent use of the Iskander systems⁷⁹ was of limited consequence in preventing or ending the conflict, leading to suggestions that a deeper, doctrinal, military restructuring can prove more effective⁸⁰ than high-value one-offs.

Perhaps the most vivid example of military disparity came in the use of Unmanned Aerial Vehicles (UAVs). The plethora of attack and reconnaissance drones utilised by Azerbaijan had a physical and psychological impact on the Armenian forces. Here, the cost element of warfare once again rears its head. Dr Eado Hecht of the Israel Defence Force (IDF) Tactical Command College comments: “Had the Azeris employed an air force with capabilities similar to those of the US... the result would have been at least the same, and some would argue even better – given the more powerful bombs carried by manned aircraft,” but he later admits that UAV “cheapness, simplicity and availability compared to manned aircraft” of the Armenians resulted in “a huge leap from nothing, or almost nothing, to capabilities they [the Azerbaijanis] could only dream of.”⁸¹

Another important lesson from the conflict came in the form of rumours on whether Armenia had full control of the Iskander systems.⁸² If the launchers truly remained under Russian command, questions should be raised over the need to count recent Russian exports, at least to the Collective Security Treaty Organization (CSTO) members, as still within the Russian arsenal.

Britain, and indeed the rest of NATO, does not fall into the category of states like Armenia and Azerbaijan which have an underkept hand-me-down military and an unwieldy Soviet doctrine. However, like any large military, Britain does operate costly equipment from the 20th century which is constantly undergoing modernisation. Be they M270 upgrades⁸³ or the latest Tomahawk upgrades,⁸⁴ decisions to tweak existing gear rather than search for new alternatives are usually governed by the sunk cost of the operated platforms. Care must be taken to prevent unnecessary modernisations or like-for-like replacements with higher priced platforms, akin to the Iskander purchase by Armenia, that do little to further the battlefield objectives.

The second Nagorno-Karabakh war also highlighted the threat posed to armoured vehicles from loitering munitions, such as UAVs. The small size, airtime capabilities and payloads of the UAVs operated by Azerbaijan were significant enough to deal Armenia a blow in their air defence capabilities and destroy Armenian, Soviet-made, tanks. The use of UAVs also protected the pilots, often positioned hundreds of kilometres away, preserving the capacity to field more fighting machines without the need to undergo costly and lengthy personnel training for new crews. This remote capability can null the battle strategy of an enemy bidding for attrition, providing there is a supply of replacement machines.

⁷⁹ Sara Khojuyan, “Armenia Fired Iskander Missiles in Azeri War, Ex-Army Chief Says”, *Bloomberg UK*, 19 November 2020, <https://www.bloomberg.com/news/articles/2020-11-19/armenia-fired-iskander-missiles-in-azeri-war-ex-army-chief-says#xj4y7vzkg>.

⁸⁰ Zhirayr Amirkhanyan, “A Failure to Innovate: The Second Nagorno-Karabakh War”, pp.128-132.

⁸¹ Eado Hecht, “Drones in the Nagorno-Karabakh War: Analyzing the Data”, *Military Strategy Magazine* 7 (4) (2022), p.35.

⁸² Eduard Abrahamyan, “Armenia’s New Ballistic Missiles Will Shake Up the Neighborhood”, *National Interest*, 12 October 2016, <https://nationalinterest.org/feature/armenias-new-ballistic-missiles-will-shake-the-neighborhood-18026>.

⁸³ “Upgrades to Multiple Launch Rocket Systems Strengthen Deep Fires Capability”, British Army, 31 March 2021, <https://www.army.mod.uk/news-and-events/news/2021/03/mlrs-upgrade-agreement/>.

⁸⁴ “£265 million missile upgrade for UK submarines”, MoD, 31 May 2022, <https://www.gov.uk/government/news/265-million-missile-upgrade-for-uk-submarines>.

The 2008 Georgian war – a lesson on enemy reconnaissance

The Russo-Georgian war of 2008 was an unexpected development for some, although the signs of preparations were evident for years beforehand. The swift deployment of the Russian forces, only hampered by their own clumsiness and inability to coordinate between units, offered an insight for future developments in Ukraine. The war was a lesson in Russian logistics and railroad reliance.

The formidable force of the railroad deployment capabilities of the Russian Army, which dictates their supply doctrine, was recently examined by Emily Ferris of RUSI following the deployment of central and western military district units to the Chinese-Russian border during the Vostok-2018 exercises.⁸⁵ The four-week period of transportation of western-based Russian divisions to the east of the country not only gave an idea of the speed of military deployment of Russian forces from Europe to Asia but the effectiveness of the *Zheleznodorozhniye voiska* (Railroad forces).

However, it was clear before the 2008 war what onus Russia puts on its railroad support network. A detachment of Russian railroad troops was sent to repair a railroad linking the Russian mainland with the Georgian breakaway regions in May 2008,⁸⁶ the same railroad that was used to resupply Russian forces in the subsequent war.⁸⁷

This reliance on railroads was seen again in the Ukrainian conflict following the 2014 annexation of Ukraine's Crimea. At the time, the Russian newspaper *Voennopromyshenyj Kur'er* (*the Military Industrial Courier*) quoted an unnamed Russian officer, saying: "Since 2009, we have been constantly practising the transfer of various units and subunits over long distances. Therefore, in March-April last year, we did not encounter any problems."⁸⁸ As such, the monitoring of Russian rail networks and the deployment of the Russian Railroad forces can be used as an advanced warning system of imminent Russian troop deployment.

Such dependence on the railroads is facilitated by the complete state control of the railroad system, which are able to divert and direct all transport in accordance with state requirements, is offset by the apparent lack of logistical capabilities of Russian forces on roads. The Russian navigation along the six-kilometre Roki Tunnel, leading from the rail station to the area of deployment, together with the advance along the roads to Java and Tskhinvali, were plagued by traffic jams, making the evacuation of the wounded, resupply and the adequate deployment of battle groups impossible throughout the conflict.⁸⁹ The Russian military is at its most vulnerable during the deployment of troops in their unladen state and along the road network.

⁸⁵ Emily Ferris, "Problems of Geography: Military and Economic Transport Logistics in Russia's Far East", RUSI, 12 October 2020, <https://rusi.org/explore-our-research/publications/occasional-papers/problems-geography-military-and-economic-transport-logistics-russias-far-east>.

⁸⁶ "Russian Railway Troops Reportedly Leaving Abkhazia", *RFE/RL*, 30 July 2008, https://www.rferl.org/a/Russian_Railway_Troops_Leave_Abkhazia/1187220.html.

⁸⁷ "Pavel Felgenhauer (columnist for *Novaya Gazeta*): 'It was not a spontaneous, but a planned war'" [Translated from Russian: Павел Фельгенгауэр (обозреватель "Новой газеты"): "Это была не спонтанная, а спланированная война"], *Kavkazskiy Uzel*, 15 August 2008, <https://www.kavkaz-uzel.eu/articles/140512/>.

⁸⁸ Aleksey Ramm, "The Ukraine test. New image of the armed forces is spoiled by the field kitchens" [Translated from Russian: Проверка Украиной. Новый облик Вооруженных Сил портят полевые кухни], *Voennopromyshenyj Kur'er*, 27 April 2015, <https://vpk-news.ru/articles/25027>.

⁸⁹ Felgenhauer, "It was not a spontaneous, but a planned war".

The Moldovan conundrum

The Transnistria conflict that separated land east of the Dniester from Chişinău's rule in the early 1990s has little influence on modern warfare. However, the political ramifications of the conflict have had a substantial impact on the possibility of integrating the region into a defensive plan against Russian aggression and threat assessments for the region.

Following the war in the early 1990s, a part of Moldova, the Pridnestrovian Moldavian Republic (Transnistria), remained permanently outside the control of the Moldovan Government. Moreover, it is the site of a 2,700 person strong Russian armed forces contingent⁹⁰ – a contingent that has been featured in the considerations of the attack on Ukraine⁹¹ and remains a threat to the security of the region. Transnistria is also the site of a considerable post-Soviet era stockpile of munitions at Cobasna, potentially containing up to 21,500 tonnes of explosives in the form of shells and other munitions.⁹²

The UK is currently engaged in supporting the Moldovan military through increased diplomatic cooperation and military training. The British Mobile Advisory and Training Team (BMATT) provides training for Moldovan officers and facilitates the integration of the Moldovan forces into joint operations with British and NATO forces. The UK is also providing training for Moldovan officers through a grant scheme at the Royal Military Academy Sandhurst and the Royal Cranwell Air Force College. Besides these, in 2022, the first officer from Moldova will benefit from the Advanced Command and Staff Course (ACSC) at the UK Defence Academy in Shrivenham. Furthermore, from 2018, the UK has also supported closer military ties with the Moldovan state through the introduction of a military attaché post at the British Embassy in Chişinău, facilitating bilateral cooperation on defence matters.⁹³

In May 2022, then Foreign Secretary Liz Truss reiterated the support for Moldova emanating from Britain: “I would want to see Moldova equipped to NATO standard.”⁹⁴ In her words, this would include the resupply of the Moldovan armed forces with NATO-standard equipment, in a move away from the ageing Soviet era armaments. The plans outlined by Ms Truss also included cooperation with Britain's European allies to provide additional training to Moldovan troops.

Moldova has also agreed to the Individual Partnership Action Plan (IPAP)⁹⁵ that outlines several ongoing and planned cooperative projects between NATO and the Eastern European state, including the modernisation of the military, adjustment of the chain of command, and cooperation in defence and cyber security.

⁹⁰ Aleksey Aleksandrov, “Will Russia use Transnistria in the war with Ukraine – interview of the former Deputy Prime Minister for the reintegration of Moldova” [Translated from Russian: Будет ли Россия использовать Приднестровье в войне с Украиной – рассказывает бывший вице-премьер по реинтеграции Молдовы], *Current Time*, 27 April 2022, <https://www.currenttime.tv/a/31823636.html>.

⁹¹ Ivan Boiko, “Russian troops in Transnistria put on full alert - General Staff [Translated from Russian: Российские войска в Приднестровье приведены в полную боевую готовность – Генштаб],” *Unian*, 26 April 2022, <https://www.unian.net/war/rossiyskie-voyska-v-pridnestrovo-privedeny-v-polnuyu-boevuyu-gotovnost-genshtab-novosti-vtorzheniya-rossii-na-ukrainu-11802303.html>.

⁹² “Transnistria claims Ukraine launched drones into an ammunition depot and opened fire” [Translated from Russian: Приднестровье утверждает, что Украина запустила беспилотники на склад боеприпасов и открыла огонь], *Evropeiska Pravda*, 27 April 2022, <https://www.eurointegration.com.ua/rus/news/2022/04/27/7138475/>.

⁹³ “Defense Cooperation”, Embassy of the Republic of Moldova to the United Kingdom of Great Britain and Northern Ireland, <https://regatulunit.mfa.gov.md/en/content/defense-cooperation>.

⁹⁴ Ben Riley-Smith, “Liz Truss: ‘I’m a low-tax Conservative – we have to weather the economic storm’”, *The Telegraph*, 20 May 2022, <https://www.telegraph.co.uk/women/politics/liz-truss-low-tax-conservative-have-weather-economic-storm/>.

⁹⁵ “Individual Partnership Action Plan (IPAP) Republic Of Moldova – NATO 2022-2023”, Ministry of Foreign Affairs and European Integration of the Republic of Moldova, https://mfa.gov.md/sites/default/files/individual_partnership_action_plan_ipap_republic_of_moldova_-_nato_for_2022-2023.pdf.

The war in Ukraine

The 24 February 2022 Russian invasion of Ukraine has once again highlighted Russian doctrinal reliance on the railroads as a supply method, the dominance of armoured vehicles in operational deployment and the reliance on force multipliers such as artillery and rocket attacks as the key factors in sustaining a Russian advance.

The Russian troop deployment via rail in the war of aggression against Ukraine was both a major factor in Russia's ability to quickly assemble for the initial attack and a colossal failure in its inability to resupply its army.⁹⁶ On 26 February, *Kyiv Independent* announced that all railway links between Russia and Ukraine had been destroyed.⁹⁷ As a result of this shrewd move, the Russian armoured tentacles that reached hundreds of kilometres into Ukrainian territory found themselves short of fuel, food and even clothes. The move further highlights the advantage to the opposing side of the damage to the Russian capacity for rail transportation. In particular, this leaves the UK open to utilising its naval and airborne long-range missiles for targeted strikes on isolated targets like railway bridges and nodes.

Deep fire capabilities are proving to be an effective force against containing an advance of the Russian forces that are stuck in an age of luddism, resorting to human and armour waves in the face of smart munitions. The impact of long-range rocket systems was highlighted by the former head of the Donetsk People's Republic, Igor Girkin, in his statement on the Ukrainian Army's ability to disrupt the Russian war effort through damaging supply lines deep inside the Russian rear.⁹⁸ The crucial aspect of this deep fire capability is intelligence that can guide the artillery and rockets to the target. This part, increasingly, is played by UAVs.

Russian deep fire capabilities have also been a dominant factor in disrupting the supply efforts of the Ukrainian Army and also at the core of the terror campaign, designed to instil a permanent sense of danger and vulnerability in the civilian population. Russian rocket attacks launched from airborne and naval carriers, such as the bombing of the Yaroviv military facility on 13 March 2022 from airplanes in Russian airspace⁹⁹ (the same facility that was reportedly the base for NATO training of Ukrainian troops), have certainly damaged the Ukrainian capacity to train troops on its own territory. They also further highlight the onus on Britain to embrace the provision of training to allied forces at its own, specialised, training centres.

The rocket attack on an apartment building in Chasiv Yar on 10 July 2022, reportedly by truck-mounted Uragan MLRS,¹⁰⁰ is just one of many similar occurrences since February 2022, but it speaks of the Russian reliance on low-tech-high-impact tactics. While being catastrophic for the civilian population, such attacks do have the effect of galvanising popular support against Russian aggression and demonstrate the need for the identification and destruction of such mass carnage systems at Russian disposal.

⁹⁶ Emily Ferris, "Russia's Military Has a Railroad Problem", *Foreign Policy*, 21 April 2022, <https://foreignpolicy.com/2022/04/21/russias-military-has-a-railroad-problem/>.

⁹⁷ *Kyiv Independent* (@KyivIndependent), "Ukrzaliznytsia: All rail links to Russia destroyed", *Twitter*, 26 February 2022, 4.48pm, https://twitter.com/KyivIndependent/status/1497614458973306888?ref_src=twsrc%5Etfw.

⁹⁸ Elena Rasenko, "Girkin complains about the increased activity of the Ukrainian army. [Translated from Russian: Гиркин жалуется на возросшую активность украинской армии]," *SocPortal*, 10 July 2022, <https://socportal.info/ru/news/girkin-rozhalovalsya-na-udary-vsu-po-tylam-rossiiskikh-okkupantov/>.

⁹⁹ Alex Horton, "Attack on Ukrainian base came from warplanes inside Russia, Pentagon says, underscoring limits of a no-fly zone", *The Washington Post*, 14 March 2022, <https://www.washingtonpost.com/national-security/2022/03/14/russia-strikes-yavoriv-poland-border/>.

¹⁰⁰ "15 killed in Russian rocket attack on apartment building, Ukraine says", *CBS News*, 10 July 2022, <https://www.cbsnews.com/news/ukraine-russia-rocket-attack-apartment-building-chasiv-yar/>.

The 10 July strike by Ukrainian-operated M142 HIMARS on a Russian munition depot in Luhansk, 80 km from the frontline,¹⁰¹ is a great example of the type of strikes the UK is capable of delivering. While the HIMARS systems are not in the UK arsenal, the M270 MLRS platforms are, together with a myriad of naval and air capabilities that, like the Russian Kalibr supersonic missiles, can be fired from a distance that puts the launch platform – be it ship or plane – out of reach of the enemy forces.

Heavy reliance by the Russian army on motorised infantry and armoured vehicles of all types has also categorised the warfare in Ukraine. The 2014 encounters with the Ukrainian forces have shown that the Soviet era weaponry was sub-standard when it came to dealing with explosive reactive armour (ERA) of modern and modernised Russian tanks such as the T-90.¹⁰² To this end, the provision of portable NLAW and Javelin anti-armour systems to Ukraine has equalised the playing field, allowing infantry to effectively deal with Russian armour at a cost that was substantially below that of an equivalent armour deployment. The cost of an NLAW system is approximately £30,000.¹⁰³ The cost of a Javelin missile and launcher is about £145,000.¹⁰⁴ Both come at a fraction of the cost of fielding even the most basic of the outdated T-72 tanks that are available.¹⁰⁵

As well as demonstrating the importance of maintaining a strong active military, the invasion of Ukraine has also shown a need for a ready and trained reserve force that can be mobilised in a time of need. Ukraine was on its way to securing 130,000 reservists by February 2022,¹⁰⁶ a number that has, undoubtedly, been depleted through casualty rates in Donbas¹⁰⁷ and other regions that are reaching a scale comparable to the Great War. A reservist force, and the facilitation of training one, not only provides a means to rotate and resupply tired frontline units but also to prepare for a counterassault while maintaining a full defence of the frontlines, a much-needed resource for Ukraine in the August 2022 preparations for the Kharkiv and Kherson offensives.

Britain was supporting Ukraine before the February invasion, but the scale was below that required for the size of threat that Ukraine would face. By the accounts of the Ukrainian military commanders, the army was in a state of disarray and demoralisation at the start of the 2014 Russian invasion and was in dire need of foreign guidance, such as was brought forth by Operation Orbital.¹⁰⁸ The recent expansion and move to train up to 10,000 Ukrainian troops on UK soil,¹⁰⁹ which boasts close-quarter battle training centres that are able to offer battlefield skills for operating in Urban environments, is not just offering a tactical advantage on the battlefield but is a valuable morale boost to those on the frontline.

¹⁰¹ Henadij Lubenets, "HIMARS work: occupants' ammunition depot destroyed in Luhansk [Translated from Russian: HIMARS работает: в Луганске уничтожен склад боеприпасов оккупантов]," *Telegraf*, 10 July 2022, <https://telegraf.com.ua/ukraina/2022-07-10/5710350-himars-pratsyue-u-lugansku-znishcheno-sklad-boepripasiv-okupantiv>.

¹⁰² Gordon Rayner, "The inside story of how Britain armed Ukraine's resistance to Russia".

¹⁰³ *Ibid.*

¹⁰⁴ Inder Singh Bisht, "Lockheed Martin to Ramp Up Javelin Production", *The Defense Post*, 3 May 2022, <https://www.thedefensepost.com/2022/05/03/lockheed-ramp-up-javelin-production>.

¹⁰⁵ Aaron Maasho, "Ethiopia signs deal to purchase 200 tanks from Ukraine: official", *Reuters*, 10 June 2011, <https://www.reuters.com/article/ozatp-ethiopia-tanks-ukraine-20110610-idAFJOE7590IR20110610>.

¹⁰⁶ Gordon Rayner, "The inside story of how Britain armed Ukraine's resistance to Russia".

¹⁰⁷ Dan Sabbagh, "Ukraine's high casualty rate could bring war to tipping point", *The Guardian*, 10 June 2022, <https://www.theguardian.com/world/2022/jun/10/ukraine-casualty-rate-russia-war-tipping-point>.

¹⁰⁸ Gordon Rayner, "The inside story of how Britain armed Ukraine's resistance to Russia".

¹⁰⁹ Anna MacSwan, "Ukrainian soldiers arrive in UK for training with British forces", *The Guardian*, 9 July 2022, <https://www.theguardian.com/world/2022/jul/09/ukrainian-soldiers-arrive-uk-training-british-forces>; "Chief of the General Staff visits Ukrainian training", *British Army*, 15 July 2022, <https://www.army.mod.uk/news-and-events/news/2022/07/chief-of-the-general-staff-visits-ukrainian-training/>.

To this day, the scale of the training of Ukrainian forces that can be offered by the UK is still lagging behind requirements. By the time of the 28 July RUSI speech by the Chief of the General Staff, General Sir Patrick Saunders, only 650 Ukrainian Armed Forces personnel were training on British soil,¹¹⁰ five months on from the 24 February invasion. The UK has the capacity to deliver more. It needs to deliver more or suffer the consequences.

The decision to train Ukrainian troops in the UK has also had a knock-on effect of spurring other allies to follow suit. Spain and Denmark have offered their facilities to Ukrainians. Training offered by these states would not be sub-par if compared to that offered UK, but considering the intensity of fighting, when it comes to external support - more is definitely more. Moreover, as the first country to open its doors for Ukrainian soldiers, the UK benefits from considerable diplomatic clout that only works to benefit national security interest.

Compared to the rest of Europe's forces, the UK benefits from the lingua franca status of the English language, most certainly studied by all Ukrainian troops. The military training offered also goes beyond the immediate battlefield objectives that will be undertaken by the trainees, engraving the support offered into the minds of allied troops and facilitating further close ties to Britain after the conflict.

¹¹⁰ Saunders, "The Chief of the General Staff General Sir Patrick Saunders' speech at the RUSI Land Warfare Conference 2022".

Current stock

Considering the aforementioned budgetary constraints, the existing supply capacity and the requirement to face up to present threats, it is worth examining the potential of the current capabilities of the British Armed Forces to deal with dangers both presently and in the near future.

Tube Artillery

Artillery System for the 90s (AS90) is the core of the UK's self-propelled artillery strength. A single gun can deliver up to 118 kg of TNT in the standard NATO High Explosives (HE) M107 rounds in three minutes, or 205 kg in 15.5 minutes.¹¹¹ While the name is a blatant representation of the modernisation struggles the MoD has faced, the rate of fire and cross-compatibility with shells from NATO member states makes it a valued component of the UK arsenal. Moreover, the AS90 is the only weapon in the UK artillery arsenal that delivers against near peer opponents – its lighter towed counterpart, the L118, was insufficient to penetrate Soviet armoured vehicles and tanks,¹¹² as are the 36 L119 variants¹¹³ sent to Ukraine.

While the UK is still mulling over the replacement for the AS90 and continues to operate the ageing platform, the US has placed orders worth US\$1.9 billion for the BAE Systems M109A7 howitzers and M992A3 'Carrier, Ammunition, Tracked (CAT) vehicles, for a total of 310 units.¹¹⁴ Itself an update of an old system, the UK is not required to follow suit as AS90 is able to share projectiles with this US ally. However, an upgrade to the quantity of the operational self-propelled howitzers is most pertinent to allow for leases and donations to allied forces, especially those already trained in their use.

As an island nation, the UK has limited requirements for army defensive capabilities – rather, it expects to be involved in offensive wars against an aggressor threatening an ally. At least this was the thinking of the authors of the 2010 SDSR, who proposed that the government “reduce our heavy artillery (AS90 armoured artillery vehicles) by around 35%. Precision ammunition allows us to strike targets with one round rather than using tens of unguided rounds. We can therefore reduce the number of artillery pieces.”¹¹⁵ This policy of reduction is not an accurate representation of what came to be in the current war in Ukraine as forces in large open field deployment, in the Ukrainian open steppe, have a larger field of view and room to manoeuvre, favouring increasingly greater bombardments from cheaper, unguided, munitions.

A RUSI calculation by Alex Vershinin estimated that the Russian Army needs 7176 tube artillery shells daily for its deployment in Ukraine.¹¹⁶ Ukraine is estimated to be deploying 5000 to 6000 shells a day.¹¹⁷ At this firing rate, the several hundred thousand shells donated by allies

¹¹¹ “AS90 Braveheart”, *Army Recognition*, 30 June 2022, https://www.armyrecognition.com/uk_british_artillery_vehicles_and_systems_uk/as90_braveheart_155mm_self-propelled_howitzer_tracked_armored_data.html; “Projectile 155mm HE M107 for Artillery by Hellenic Defence Systems”, *ArmsCom.NET*, https://www.armscom.net/products/projectile_155mm_he_m107_for_artillery_by_hellenic_defence_systems.

¹¹² “The L118 105mm Light Gun Replacement”, *Think Defence*, 11 February 2022, <https://www.thinkdefence.co.uk/2022/02/the-l118-105mm-light-gun-replacement/>.

¹¹³ “UK to send scores of artillery guns and hundreds of drones to Ukraine”, Ministry of Defence, 21 July 2022, <https://www.gov.uk/government/news/uk-to-send-scores-of-artillery-guns-and-hundreds-of-drones-to-ukraine>.

¹¹⁴ Tom Dunlop, “BAE Systems receives order for more M109A7 artillery”, *UK Defence Journal*, 29 July 2022, <https://ukdefencejournal.org.uk/bae-systems-receives-order-for-more-m109a7-artillery/>.

¹¹⁵ “Securing Britain in an Age of Uncertainty”, p.25, paragraph 2.A.8.

¹¹⁶ Alex Vershinin, “The Return of industrial Warfare”, RUSI, 17 June 2022, <https://rusi.org/explore-our-research/publications/commentary/return-industrial-warfare>.

¹¹⁷ Isobel Koshiw, “We're almost out of ammunition and relying on western arms, says Ukraine”, *The Guardian*, 10 June 2022, <https://www.theguardian.com/world/2022/jun/10/were-almost-out-of-ammunition-and-relying-on-western-arms-says-ukraine>.

to Ukraine by mid-summer 2022 are not expected to last the duration of the conflict, now anticipated to run into 2023.¹¹⁸ In the words of the 1st Duke of Wellington, “They came on in the same old way”, this time – with unguided and uncontrollable munitions that occasionally hit their own troops. The UK does not have to “defeat them in the same old way”.

While the UK may be lacking in capacity to deliver an artillery barrage, it is able to provide artillery that can support allied troops without detriment to UK operations. The UK was reportedly ready to supply Ukraine with 20 units of AS90 howitzers in April 2022. The guns were to be transferred to Poland where Ukrainian troops were to be trained in their use.¹¹⁹ These plans were later altered to a smaller number, and in July the UK sent eight guns to Ukraine.¹²⁰

At the start of the Ukraine conflict, the UK had 89 AS90 guns. With approximately 10% of these units deployed to Ukraine, the UK stands to have a substantial potential for future allied supply. Operational deployment of the British military on a combat mission in Europe, without invocation of NATO article 5, is unlikely. Considering the repercussions of such an invocation and the potential for allied assistance, there is little in the way of a temporary lease of the remaining platforms to Ukraine.

Long-range and loitering munitions

British wars of the 21st century have fielded the then Queens’ soldiers against a lesser enemy. In these cases, the British military suffered more casualties from improvised explosive devices and acts of friendly fire than from direct frontal engagements with the foe. In such cases, armour is key in protecting the lives of soldiers, not overwhelming firepower.

The 21st-century wars with Russia, on the other hand, be it the Georgian war or the war in Ukraine, as well as wars with Russian weapons, such as the war in Nagorno-Karabakh, have shown a different pattern. Armour is weak and susceptible to destruction by infantry with appropriate missiles and from long-range strikes. While the long-range attacks, often performed by costly munitions, are unlikely to be used against a mass deployment of enemy armour, they are invaluable to preventing deployment though destruction of key logistics and command targets. The Ukrainian attacks on key bridges and munition dumps have shown the detrimental effects of long-range weapons on the Russian forces.¹²¹ While the Ukrainians are lumbered with an ineffective fleet and an air force controlled by the reach of the Russian air defence dome, Britain can utilise these and long-range land-based assets in a potential confrontation, requiring adequate attention to be paid to the supply and maintenance of these systems, including appropriate numbers of personnel to operate them.

The onus on precision strikes was reflected in the UK 2010 SDSR that highlighted the MoD focus on “precision Guided Multiple Launch Rocket System (GMLRS) rockets that can strike targets up to 70 km away, and Loitering Munitions able to circle over a battlefield for many hours ready for fleeting or opportunity targets”¹²² as essential for the future deployment of

¹¹⁸ Paul Mcleary, Andrew Desiderio and Cristina Gallardo, “Ukraine wants to win today, the West is looking at 2023”, *Politico*, 29 June 2022, <https://www.politico.com/news/2022/06/29/ukraine-wants-to-win-today-the-west-is-looking-at-2023-00043087>.

¹¹⁹ Guy McCardle, “Britain Hands Over Deadly AS-90 Braveheart Howitzers and 45,000 High Explosive Shells to Ukraine”, *Sofrep*, 25 April 2022, <https://sofrep.com/news/britain-hands-over-deadly-as-90-braveheart-howitzers-and-45000-high-explosive-shells-to-ukraine/>.

¹²⁰ Oleh Ohnev, “AS90 self-propelled guns from Great Britain for the Armed Forces: capabilities, features and characteristics of the artillery system” [Translated from Ukrainian: САУ AS90 від Великобританії для ЗСУ: можливості, особливості та характеристики артсистеми], *Unian*, 6 July 2022, <https://www.unian.ua/war/sau-as90-vid-velikobritaniji-dlya-zsu-mozhливosti-osoblivosti-ta-harakteristiki-artsystemi-novini-vtorgnennya-rosiji-v-ukrajinu-11892561.html>.

¹²¹ “Ukraine says it hit Russian troop bases, key bridges in overnight strikes”, *Reuters*, 8 August 2022, <https://www.reuters.com/world/europe/ukraine-says-it-hit-russian-troop-bases-key-bridges-overnight-strikes-2022-08-08/>.

¹²² “Securing Britain in an Age of Uncertainty”, p.24, paragraph 2.A.7.

the military. It is with this focus that the MoD entered the new decade of the 20th century, which begs the question, why was the last delivery of an MLRS system to the UK over half a decade before the 2010 SDSR and no new systems have been purchased since,¹²³ despite the availability of modern alternatives used by the US and other allied forces.

The UK supply issues stem from outdated equipment that does not share parts and munitions with other allies, as well as an outstretched supply base. Currently, the UK will be sharing the same material supply base and competing with NATO allies in its efforts to restock donated weapons and renew its arsenal. In particular, if the UK is to secure land-based long-range it will face restriction in the form of existing orders from allied states. One such case is the order of 500 M142 HIMARS by the Polish army¹²⁴ which not only limits the possibility of Lockheed Martin, the system's manufacturer, to produce the systems for other states, but also to deliver the Polish order within a reasonable timeframe to counter present threats. Poland had previously ordered 20 systems in 2019, with their delivery expected four years later, in 2023.¹²⁵ A delivery estimate for an order 25 times that magnitude would put any current efforts of the UK to acquire such systems at the back of the queue. However, considering the scale of the present demand for the platforms, there is an argument to be made for scalability of production, considering the hefty financial incentive to the defence industry.

The second tool in the arsenal of the British Military capable of delivering precision strikes and also facilitating precision strikes by field artillery are UAVs, or drones as they are colloquially known. In past engagements, the RAF and other UK military operators have successfully utilised the unmanned capabilities without fear of a surface attack on the aerial vehicles, apart from shoulder-mounted missiles and machinegun fire.

Out of the three UAV types operated by the British Armed Forces, the General Atomics MQ-9 Reaper is the one capable of delivering a deadly payload to the unsuspecting enemy.¹²⁶ The Reaper has been used on operations in Afghanistan, where it flew over a thousand sorties. However, with a laden operational height of 30,000 feet, or about 9,100 metres, it is significantly within the 30 km ceiling strike capability of the S400 air defence system¹²⁷ operated by the Russian Federation.

The Ukrainian theatre has successfully utilised the Baykartech Bayraktar TB2 UAV against the Russian forces. It was one of the ammunition types used to bring down the *Moskva Cruiser*¹²⁸ and several other ships on Zmiinyi Island,¹²⁹ as well as hitting munition storage and other facilities operated by the Russians in Ukrainian territory.

¹²³ "UK Armed Forces Equipment and Formations", Ministry of Defence, 9 September 2021, https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fassets.publishing.service.gov.uk%2Fgovernment%2Fuploads%2Fsystem%2Fuploads%2Fattachment_data%2Ffile%2F1014760%2FUK_Armed_Forces_Equipment_and_Formations_2021_tables.xlsx&wdOrigin=BROWSELINK

¹²⁴ Jaroslaw Adamowski, "Poland eyes 500 American rocket launchers to boost its artillery forces", *Defense News*, 27 May 2022, <https://www.defensenews.com/global/europe/2022/05/27/poland-eyes-500-us-himars-launchers-to-boost-its-artillery-forces/>.

¹²⁵ Natalia Borzuta, "Polska chce kupić 500 wyrzutni M142 HIMARS. Szef MON: Zwiększamy zdolności wojsk", *Interia Wydarzenia*, 26 May 2022, https://wydarzenia.interia.pl/kraj/news-polska-chce-kupic-500-wyrzutni-m142-himars-szef-mon-zwieksza,nld,6051063#utm_source=paste&utm_medium=paste&utm_campaign=chrome.

¹²⁶ "UK Armed Forces Equipment and Formations", Ministry of Defence.

¹²⁷ "S-400 'Triumph'", RosOboronExport, <http://roe.ru/eng/catalog/air-defence-systems/air-defense-systems-and-mounts/s-400-triumf/>.

¹²⁸ "'Bayraktar' and missiles from Odessa: new details of the strike on the flagship of the Black Sea Fleet of the Russian Federation, the cruiser 'Moskva'" [Translated from Russian: «Байрактар» и ракеты из Одессы: новые подробности удара по флагману Черноморского флота РФ крейсера «Москва»], *Charter 97*, 14 April 2022, <https://charter97.org/ru/news/2022/4/14/463477/>.

¹²⁹ "Bayraktar works. How the Armed Forces destroyed two Russian boats near Zmiinyi" [Translated from Ukrainian: Працює Байрактар. Як ЗСУ знищили два російські катери біля Зміїного], *BBC News Ukraine*, 2 May 2022, <https://www.bbc.com/ukrainian/news-61296642>.

The UK currently has no system that is small, light and slow enough, as odd as this requirement may be,¹³⁰ to operate within an area controlled by Russian-made air defence systems. In this regard, the purchase of the Baykartech systems, although lacking in the satellite communication capabilities making them operable from a location thousands of miles away, like the Reaper, does make sense for the UK military. However, this can be resolved through operation of forward bases near the possible deployment areas.

The major benefit of the Turkish-made UAVs comes in the cost per unit. While the US-made Reaper is thought to reach US\$32 million apiece,¹³¹ the Turkish drone is reported to be €5 million. The smaller price tag allows for a greater operational potential as more UAVs can be bought. The cheaper UAV is also more likely to be used in operations against smaller targets, where the cost of destroying the target, even with the loss of the UAV in the mission, would be an economically viable trade-off.

Another UAV deployment area that Britain needs to explore further is reconnaissance. The Desert Hawk 3, following the retirement of the small but expensive Black Hornet,¹³² is the go-to UAV for battlefield intelligence. The US-made UAV was widely used in Afghanistan and on other British Army engagements, however its ability to withstand the severity of a European winter is unclear. The British military operates over 200 such UAVs but with the wars in Ukraine and Azerbaijan showcasing the need for such drones for army units in the field, it is clear that the military needs to expand its program of UAV operations.

Small reconnaissance UAVs such as the Desert Hawk 3 provide an invaluable eye in the sky for the soldiers on the front lines, in defensive operations and for base protection. The retirement of the costly Black Hornet drastically decreased the range of visibility for British forward operations at a time when allied forces are investing in similar technology.¹³³ More curiously, the August 2022 donation of the drones to Ukraine¹³⁴ suggests that they have not been disposed of, or sold, leaving one to question the motivation of decommissioning them. Clearly their donation to Ukraine and the move by the US to operate similar drones indicates their value to the military. It is time to reconsider the importance of UAVs of all sizes to the military and to recognise the added value a small, pocketable UAVs have to soldiers, especially considering the possibility of operation in urban settings, where the small size and manoeuvrability of the Black Hornet and other small systems plays an important role.

The third type of UAVs, currently not employed by the British Forces at all, are the loitering munitions that are also called suicide drones. The US-provided Switchblade UAVs have been beneficial to the Ukrainian war efforts as anti-armour weapons and to disrupt Russian communications.¹³⁵ The purchase of these or similar systems for the British military will further increase its potential while preserving the lives of British soldiers, as UAV operators are removed from the theatre of operations.

¹³⁰ H I Sutton, "Incredible Success Of Ukraine's Bayraktar TB2: The Ghost Of Snake Island", *Naval News*, 18 May 2022, <https://www.navalnews.com/naval-news/2022/05/surprising-success-of-ukraines-bayraktar-tb2-the-ghost-of-snake-island/>.

¹³¹ David Hambling, "Why The Air Force Needs A Cheaper Reaper", *Forbes*, 10 June 2020, <https://www.forbes.com/sites/davidhambling/2020/06/10/why-the-air-force-needs-a-cheaper-reaper/>.

¹³² "UK Armed Forces Equipment and Formations", Ministry of Defence; George Allison, "British armed forces cut 37% of unmanned aircraft systems in one year", *UK Defence Journal*, 6 July 2017, <https://ukdefencejournal.org.uk/british-armed-forces-cut-37-unmanned-aircraft-systems-one-year/>.

¹³³ "Teledyne FLIR Defense Wins Additional \$14M Contract for Black Hornet Nano-UAV Systems for U.S. Army Soldier Borne Sensor Program", *Business Wire*, 24 May 2022, <https://www.businesswire.com/news/home/20220524005151/en/Teledyne-FLIR-Defense-Wins-Additional-14M-Contract-for-Black-Hornet-Nano-UAV-Systems-for-U.S.-Army-Soldier-Borne-Sensor-Program>.

¹³⁴ Tanmay Kadam, "Used By Elite Indian Commandos, Ukraine To Receive 850 Black Hornet Micro Drones To Penetrate Russian Defenses", *The Eurasian Times*, 27 August 2022, <https://eurasianimes.com/commandos-ukraine-to-receive-850-black-hornet-micro-drones/>.

¹³⁵ Anton Gerashchenko (@Gerashchenko_en), *Twitter*, 15 August 2022, 10.39am, https://twitter.com/Gerashchenko_en/status/1559112413248716801.

Potential operational requirements

In April 2022, General Sir Richard Barrons, former Commander Joint Forces Command, said, “Artillery has already been by far the biggest killer in this war, and this will only increase now.” Continuing to comment on UK support for Ukraine, he raised the issue of maintenance of the UK’s main self-propelled artillery system: “I once commanded an AS90 regiment. They are easy to fire but they are complex machines to maintain.”¹³⁶ This observation further highlights the importance of a robust supply chain and the maintenance of a sufficient quantity of technical, non-military staff at the MoD.

Ukraine is in a position to maintain the UK AS90s as they are fielding Polish-designed KRAB howitzers that feature the same turret as the AS90 and can share parts and supply lines for shells.¹³⁷ As such, the guns are prime examples of weapons that can and should be used to assist allies at times when Britain is not in need of them. At times when the allied force is lacking the experience and equipment to maintain such weapons, the UK can authorise, or not disincentivise, the employment of British civilians in the combat zones to operate and maintain gifted or loaned arms. The systems for this can be put in place through international agreements and memoranda.

The Nagorno-Karabakh war and the war in Ukraine have shown the immense importance of artillery on the battlefield. The UK can provide additional artillery support for friendly and allied armies while reserving the ability to engage with long-range weapons.

Even with long-range capabilities, Britain needs to maintain a physical presence in regions of potential conflict as a deterrent, considering the value of article 5. The presence of British troops in regions of focus for national security and defence has to be achieved through international agreements and frequent joint exercises. The deployment of 8,000 UK troops to Eastern Europe¹³⁸ and the Hedgehog exercises include the UK JEF contingent together with CARBIT deployment, missing the bigger opportunity to highlight the readiness of UK forces to deploy in defence of allies.

¹³⁶ Mark Channer, “Europe will see the largest ‘artillery conflict’ since WWII as British tank squadrons assemble around Ukraine”, *London Loves Business*, 24 April 2022, <https://londonlovesbusiness.com/europe-will-see-the-largest-artillery-conflict-since-wwii-as-british-tank-squadrons-assemble-around-ukraine/>.

¹³⁷ “Ukraine To Receive 60 Self-Propelled Guns in Poland’s Largest Arms Export Deal”, *Sofrep*, 20 July 2022, <https://sofrep.com/news/ukraine-poland-ally/>.

¹³⁸ “British Army exercises boost presence across Europe”, Ministry of Defence, 29 April 2022, <https://www.gov.uk/government/news/british-army-exercises-boost-presence-across-europe>.

Why support Ukraine?

The reliance of the UK on US donations and support for the European theatre in provisions against the Russian onslaught on its western neighbours has produced big headlines, quoting large sums, but yielded limited actual value to the allied troops and states in Eastern Europe. It is time to read beyond the headlines and focus on the numbers, which show a dire need for a European actor to breach the gaps between perceived and real support.

In the past, US support for Ukraine, already in the midst of a Russian invasion following the annexation of Crimea and the loss of control over sections of the Donetsk and Luhansk regions, was anaemic. The 2015 annual US National Defense Authorization Act specified \$300 million which covered “security assistance and intelligence support, including training, equipment, and logistics support, supplies and services, to military and other security forces of the Government of Ukraine”.¹³⁹ \$300 million is a budget that hardly covers the provision of sufficient military support for a nation at war.

Following the Russian attack in February 2022, the US offered a \$40-billion-package¹⁴⁰ to Ukraine. A further \$13.6 billion US dollars have been added to the package in the summer of 2022.¹⁴¹ However, of that amount, and factoring in support provided since 2014, Ukraine’s military received over \$14.5 billion in US military aid.¹⁴² While the numbers can speak volumes of the US’s ability to commit, the help that is reaching Ukraine paints a different picture if examined more closely.

The Ukrainian Army has made good use of some of the donations. Chief of these are the portable systems, such as the Javelin¹⁴³ and Stinger,¹⁴⁴ that have had a real impact on the battlefield and morale of Ukrainian forces. While factored into the US military aid package, but not a part of the arms donation, the intelligence provided by the US has also played a major role in the conflict¹⁴⁵ and the importance of these commitments should not be overlooked.

However, some of the US gear committed to Ukraine, while appearing as a worthwhile stopgap for the struggling Ukrainian military, adds to the numbers on the value of donated equipment without offering a lasting measure or a robust battlefield force. Among the US package is the provision to supply Ukraine with the M113 armoured personnel carrier.¹⁴⁶ Often described as a battle taxi, for its inability to independently lay sufficient fire on the enemy due to the lack of a turret or cannon and its primary use of delivering mechanised infantry to battle, the vehicle has been used by the US since the days of the Vietnam War. The provision of 200 M113s

¹³⁹ US Congress, “National Defense Authorization Act For Fiscal Year 2016”, Section 1250.

¹⁴⁰ Mike DeBonis and Dan Lamothe, “U.S. deepens Ukraine commitment with \$40 billion in aid and expanded NATO”, *The Washington Post*, 19 May 2022, <https://www.washingtonpost.com/politics/2022/05/19/ukraine-aid-senate/>.

¹⁴¹ U.S. Congress, “Ukraine Supplemental Appropriations Act, 2022”.

¹⁴² “U.S. Security Cooperation with Ukraine. Fact Sheet”, Bureau of Political-Military Affairs, 19 August 2022, <https://www.state.gov/u-s-security-cooperation-with-ukraine/>; Mark F Cancian, “What Does \$40 Billion in Aid to Ukraine Buy?”, Center for Strategic and International Studies, 23 May 2022, <https://www.csis.org/analysis/what-does-40-billion-aid-ukraine-buy>.

¹⁴³ Jon Guttman, “Javelin missile: Made by the US, wielded by Ukraine, feared by Russia”, *Military Times*, 12 May 2022, <https://www.militarytimes.com/off-duty/gearscout/2022/05/12/javelin-missile-made-by-the-us-wielded-by-ukraine-feared-by-russia/>.

¹⁴⁴ Guy McCordle, “Stinging the Russian Army: Use of US Stinger Missiles in Ukraine”, *Sofrep*, 28 May 2022, <https://sofrep.com/news/stinging-the-russian-army-use-of-us-stinger-missiles-in-ukraine/>.

¹⁴⁵ Humeyra Pamuk and Kanishka Singh, “U.S. to continue providing intelligence to Ukraine after recent personnel changes”, *Reuters*, 18 July 2022, <https://www.reuters.com/world/europe/us-continue-providing-intelligence-ukraine-after-recent-personnel-changes-2022-07-18/>.

¹⁴⁶ “U.S. Security Cooperation with Ukraine. Fact Sheet”, Bureau of Political-Military Affairs, 19 August 2022, <https://www.state.gov/u-s-security-cooperation-with-ukraine>.

to Ukraine also coincides with the replacement of the platform, although suffering lengthy delays,¹⁴⁷ to occur by 2023. It would be cheaper for the US to offload the aged system than to maintain the supply lines for their maintenance in the meantime.

The US and other allies have been criticised for their lack of provision of infantry combat vehicles, tanks and other vehicle types. The criticism, although logical, misses the issue of training and integrating such platforms into a doctrine of an army already at war and incapable of taking the time needed to retrain and reorganise operations. The training required to maintain an M2 Bradley, let alone operate it effectively, is thought to be 33 weeks.¹⁴⁸ The training for an M1 Abrams crewmember is 22 weeks,¹⁴⁹ a mechanic requires 34 weeks¹⁵⁰ and a tank commander in the US army is required to have had previous positions as a crewmember, increasing the timeline of achieving the position exponentially.

While incapable of competing on a pound per dollar rate, the UK is able to fall back on its current stockpile, even if it is depleting, to support a war that staves off conflict on Britain's immediate doorstep. The notion of giving away the barn doors does not apply if the barn is on fire.

¹⁴⁷ Jen Judson, "Pandemic lengthens delay in US Army's M113 vehicle replacement program", *Defense News*, 3 August 2020, <https://www.defensenews.com/land/2020/08/03/pandemic-causes-latest-delay-in-us-armys-m113-replacement-program/>.

¹⁴⁸ Rod Powers, "MOS 91M - Bradley Fighting Vehicle System Maintainer", *The Balance Careers*, 16 February 2018, <https://www.thebalancecareers.com/91m-bradley-fighting-vehicle-system-maintainer-3346057>.

¹⁴⁹ "Armor crewmember", Army National Guard, <https://www.nationalguard.com/19k-m1-armor-crewman>; "M1 Armor Crewman", U.S. Army, <https://www.goarmy.com/careers-and-jobs/career-match/ground-forces/tanks-machinery/19k-m1-armor-crewman.html>.

¹⁵⁰ "M1 Abrams Tank System Maintainer", U.S. Army, <https://www.goarmy.com/careers-and-jobs/career-match/mechanics-engineering/test-repair/91a-m1-abrams-tank-system-maintainer.html>.

Conclusion

The United Kingdom, in its effort to secure its national interests and defence, needs to face up to the question of what the primary objective of its foreign and defence policy is, and the current limited political action in supporting an immediate military victory over Ukraine may suggest that it is not the priority.

Russian aggression in Ukraine is a direct threat to the UK as it has destabilised the world markets and forced a mass displacement of people in Europe the likes of which has not been seen since the Second World War. The rising costs of living, partially a residual effect of Brexit and COVID, are persistently pushed further by food and other shortages caused by the war in Ukraine. What's more, the allied support for Ukraine is putting additional pressure on the domestic budgets of Western states at a time when the focus of the electorate is shifting to local issues of healthcare, welfare and living cost dampening. A direct sponsorship of the Ukrainian war effort to provide a swift resolution to the conflict, regardless of the immediate financial cost, is in the best interests of the UK.

The nuclear threat continues to loom over Europe and the world. While a strategic nuclear strike is a possibility, the discussion has centred around the use of tactical, short-range and potentially smaller yield weapons. While providing a misguided sigh of relief for those outside of the immediate theatre of war, such a deployment, the first in human history, would have unknown ramifications but is likely to lead to immediate extensive damage and casualties, when compared to a strategic missile strike. In this regard, the argument for immediate and overwhelming support for Ukraine, support that would bring an immediate collapse of the Russian military, comes against the trade-off of a large response from the aggressor state.

Allied supplies to Ukraine have largely lacked the offensive capability so coveted by Ukraine. Limited numbers of armoured fighting vehicles and no tanks, bar a limited quantity of Soviet era equipment bartered from post-Soviet states, have been offered to support any planned Ukrainian offensive deployments. The deliveries of artillery and rocket platforms requested by Ukraine have also been slow, if forthcoming at all. All this suggests that the collective West, Britain included, is bidding on a war of attrition, with projections showing a significant depletion of military capabilities on the Russian and Ukrainian sides coming by the end of the year.¹⁵¹

However, irrespective of these calculations, Britain still has to maintain a robust defensive force that is able to deal with a depleted Russian foe should the Ukrainian conflict extend beyond 2022 and escalate to include other states, and that is also able to protect against threats elsewhere.

Historically, the MoD has had a funding issue that continues to limit the amount of assistance the UK can offer to allied states in war. Whether pinned on the failings of previous governments or the situational change in global priorities, the political decisions surrounding the funding of the Ministry have referenced budgeting as a priority. In this regard, a yearly budget for the MoD, linked to the 2% of GDP NATO promise, does not offer substantial support for long-term procurement and maintenance of military systems, especially in terms of budgets for personnel to operate and support existing equipment. The MoD requires a longer-term financial strategy that is a minimum safety net on a longer-term basis to facilitate extended projects and equipment overhauls. In this regard, the suggestions of Liz Truss, if financially viable, offer a start on providing appropriate level of support needed in the current situation.

¹⁵¹ Zsolt Lazar, "125+ days of Russian invasion of Ukraine on ten charts", *Medium*, 28 June 2022, <https://medium.com/@zs.lazar1/125-days-of-russian-invasion-of-ukraine-on-ten-charts-5f5f12607730>.

While the British Army's equipment is considered substantially advanced compared to the insurgency and near peer opponents that it is expected to face, supply and stock of expendable resources such as shells, rockets, man-portable air-defence systems (MANPADs) and other munitions is dangerously low for a small military which may be expected to supply allies who would bear the brunt of military action. The UK requires a policy that would create a sufficient reserve of munitions that at least equals the quantity of enemy armour units it is expected to engage with and provides enough firepower for an engagement throughout the entirety of an anticipated conflict. The argument of infeasibility of such policies due to shelf life for such stocks is only valid if there is no system to manage their replenishment, resale and use before they go off. A poor argument if it reflects the current state of affairs and only reinforces the need for an overhaul.

Studies should be undertaken on the duration of potential conflicts and the quantity of air, naval and armour platforms the possible enemy may have to guide formation of armament reserves. This together with all reviews and studies of MoD needs have to be performed by independent bodies, free from political bias of election cycles and MoD fears of future budgetary changes resultant from ongoing reviews.

European conflicts in the 21st century have shown that logistics is traditionally the weakest point of modern military deployment. The UK needs to conduct adequate reviews through large-scale military exercises in Europe and other potential deployment theatres in order to examine the robustness of the British Army's logistical support. Furthermore, the long-range strike capability of the British Armed Forces needs to be maintained and improved with available, off-the-shelf equipment that is capable of delivering strikes against logistical nodal points of enemy forces. This specifically relates to long-range naval and land-based precision missiles and MLRS systems capable of delivering missile strikes.

The capability of the British Armed Forces to deploy independently and face a near peer foe are limited by its size and current equipment shortages. The MoD has to conduct a study on the future needs of training centres in the UK and at British military bases on the continent. The experience and readiness of the British forces can be utilised to offer basic and further training to allied forces that are expected to engage in operations with the British military or British military equipment.

In line with the narrative of the Integrated Review, Britain needs to utilise its diplomatic power, through membership of NATO and the OSCE, to bolster defence commitments, such as the JEF. The pursuit of great commitment from allied nations to a joint defence, with a focus on individual responsibility of all European states in a joint defence plan, must be the focus of the UK's policy. This approach can be combined with extension of British economic reaches to those states currently vulnerable, such as Moldova, Georgia, the Baltic nations and the states in the Caucasus. Economic support for defence projects and democratic values campaigns will offer additional points of cooperation with the UK.

Overall, the British military has entered the 21st century relieved by the dissolution of the Warsaw Pact and focused on engaging less capable enemies, such as insurgent groups and terrorist cells. Despite sufficient evidence of growing Russian militarisation from the early 2000s, with a continuous focus on the wars in Iraq and Afghanistan, and financial insecurity brought on by the 2008 financial crisis and Brexit, British forces have not been able to restructure their operations to meet modern and future threats.

The Russian invasion of Ukraine on 24 February 2022 has led to a global goose chase for modern equipment that is capable of delivering substantial blows to less technologically advanced enemies without incurring high levels of personnel losses. With the British forces

already engaged in several long-term procurement processes of new platforms, such as battle tanks, communication systems and armoured personnel carriers, the sunk cost does not allow for a rapid and painless pivot to other military platforms. Instead, while the UK Army, Navy and Air Force await deliveries of newer platforms, it would be justified to focus on the maintenance of existing capabilities without downscaling, the stockpiling of munitions and the training of our own and allied troops. The UK's long-range capabilities should be the backbone of joint allied deployment, providing precision hits on the logistics and command targets of enemy forces.

Policy suggestions

- Diplomatic powers must be used to obtain greater military commitment from member nations of the JEF, at least equalling that of Britain.
- Britain needs to financially support pro-democratic movements and non-governmental organisations (NGOs) in Moldova and Georgia to ensure a Western orientation of the populace in these countries.
- Foreign direct investment initiatives need to be launched to link the Moldovan, Georgian, Baltic and Finnish economies to the British economic system to illustrate the economic viability of continued links with Britain as justification for closer defensive ties.
- The UK must expand its UAV arsenal, both in quantity and quality. The UK needs to look into small UAVs and loitering munitions as viable means to preserve the lives of military personnel while retaining the ability to strike high-value targets.
- Purchase additional 155mm guns. While the UK cannot singlehandedly provide the required MLRS quantity for the Ukrainian military (at least 100¹⁵²), it can offer the meagre UK stock to support the Ukrainian war effort without a serious threat to its current capability. Purchase of the Polish-made KRAB howitzers allows for a stock of artillery that has high parts cross-compatibility with the AS90, provides a stopgap before the replacement for the AS90 is obtained, and offers a stock of guns that can be provided to allied states in need due to their use of NATO shells.
- Purchase M142 HIMARS MLRS platforms capable of firing modern long-range missiles. The current inability of British ground-based troops to deliver rapid long-distance critical hits on military targets puts it at a disadvantage in a near peer conflict. With Ukraine bearing the brunt of the Russian aggression, the UK has a chance to replenish its stock and look to alternative systems that outperform the stocked M270 platforms. The US-made HIMARS offers a solution to this issue.
- Enact a policy of stockpiling MANPADS to ensure adequate deployment in the field for prolonged conflicts and supply of allied forces when needed.
- Enact a policy of stockpiling anti-armour portable munitions such as NLAWS and Javelin missiles to ensure adequate deployment in the field for prolonged conflicts and supply of allied forces when needed. The combined quantity of missiles must not fall below the known quantity of armoured vehicles and battle tanks of anticipated enemy forces, currently thought to be 10,000 to engage Russia.
- Conduct regular large-scale military exercises with a deployment of force no less than a division in a geographical area close to, or terrain and climatic conditions similar to, a potential engagement. These exercises must coincide with the build-up and formation of the SDSR and act as an input for the force readiness and requirements for the Review. An integral part of the exercises must be an assessment of supply and logistics capabilities to ascertain the ability to provide adequate support for British troops and allied forces engaged in a conflict.

¹⁵² Atlantic Council, "A conversation with Minister of Defense of Ukraine Oleksii Reznikov", *YouTube*, 19 July 2022, <https://youtu.be/AGVMxrTIGJY>.

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By Dr Stepan Stepanenko

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