

Written Evidence submitted by the Human Security Centre.

Background

The Human Security Centre (HSC) is an international, independent, not-for-profit foreign policy think-tank based in London. The HSC adopts and promotes the concept of human security as a central pillar of foreign policy in the twenty-first century.

The author of this evidence, Dr Rowan Allport, is an HSC Deputy Director who leads the organisation's Security and Defence team.

Executive Summary

- Lessons learned from the war in Ukraine include the importance of large, secure stockpiles of munitions and having access to an industrial base capable of surging production; the critical nature of the ability to deploy a force with sufficient mass and possessing a rapid force generation capability to accomplish goals in major conflicts; the utility of asset dispersal; that control of the air will not be absolute for either side in most circumstances; and that uncrewed systems will be central in future conflicts. However, many policy decisions require a clearer idea of the conflict's outcome.
- Russia remains the primary security threat to the UK, and prospects for a more benign leadership in the Kremlin are not great for the foreseeable future. The elements of Moscow's forces that present a direct threat to the UK have been only marginally depleted by the war in Ukraine. Russia's ability to recover from setbacks should not be underestimated.
- China is the second most critical security threat to the UK. Britain has territorial responsibilities in the Indo-Pacific and regional ties which may force some degree of involvement in a conflict involving Beijing and a US-led regional coalition – including over Taiwan. Iran and North Korea present further state-based challenges that may necessitate UK involvement in the event of aggression by these nations. New state-based threats may emerge

from nations such as Pakistan. State failure, terrorism and criminality represent further challenges.

- The UK Armed Forces have significant capability gaps and other shortfalls. The Army can generate only limited mass, is retiring key equipment without replacement, lacks adequate air and missile defence capabilities, has inadequate munitions stockpiling, insufficient regular close support units, a shortage of (chiefly RAF-sourced) air transport, and constrained flexibility.
- UK maritime forces have seen delays to key programmes such as the Type 26 frigate, *Astute*-class submarine and the Fleet Solid Support Ship Programme (FSSP) which have led to the retirement or unanticipated ageing of systems before their successors were ready. Other ships have had their availability limited due to technical issues. Limited force mass is also an issue, particularly concerning submarines, helicopters and the Royal Marines.
- The RAF has a shortfall in combat aircraft likely to persist until the end of the decade at least. Air transport capabilities are under strain due to aircraft retirement without replacement and delays to procurement programmes. The RAF currently lacks a full Suppression of Enemy Air Defence/Destruction of Enemy Air Defence (SEAD/DEAD) capability. Maritime patrol and planned airborne early warning and control capabilities are thin, and kinetic ground-based air and missile defence capabilities are absent.
- The idea that the UK possesses a Tier One Force is not possible to defend as the US currently possesses the only such military. Britain can be viewed to possess a Tier Two Force, although this is marginal given certain capability limitations. The ability such a force gives to act with a degree of independence is of significant value both directly and indirectly, and this is only likely to increase going forward given US commitments to the Indo-Pacific.

Lessons from Ukraine

1. Experiences from and observations of the Ukraine War have already produced significant lessons, although many of them are instances of 're-learning' or confirmation of what has long been suspected. They include:

- 1.1 The consumption rate of ammunition necessitates a large stockpile and an industrial base able to increase production at short notice. Even US stockpiles have been stressed by the demands of the conflict, with Javelin anti-tank missiles, Stinger surface-to-air missiles, 155mm artillery shells and guided rockets for HIMARS launchers being in high demand. Contracts have been signed to increase production rates on these systems but will take years to fully implement.¹
- 1.2 Despite advances in technology, mass – which in this evidence is defined as the quantitative size of the available force – matters.² Russia attempted to invade and occupy a nation of around 43 million people with a force of perhaps 190,000 personnel.³ The narrower failures of the Russian military have obscured that this force would not have been adequate for the task in anything but the most benign circumstance. Conversely, Ukraine was able to field a large if diversly-equipped defensive force, mobilise reserves and advance a programme of training and equipping recruits at home and externally with allied assistance. Russia's mobilisation efforts were delayed and have proven less successful.
- 1.3 Dispersal is the key to survivability – there is no sanctuary within the operational theatre (and on occasion further out) that is beyond reach in an era of precision-guided cruise and ballistic missiles and uncrewed aerial vehicles (UAVs). This is to say nothing of cyber, which has a global reach. Russia has proven able to hit fixed targets with relative ease, but Ukraine's decision to disperse its aircraft, munitions and command and control (C2) facilities and other assets has been critical. Conversely, access to modern

¹ Judson, J. (2023) 'US Army eyes sixfold production boost of 155mm shells used in Ukraine'. Defense News, 28 March [Online]. Available at: <https://www.defensenews.com/digital-show-dailies/2023/03/28/us-army-eyes-six-fold-production-boost-of-155mm-shells-used-in-ukraine/> [Accessed 4 June 2023]; Selinger, M. (2022) 'Increasing Stinger missile production will take time, Raytheon CEO says'. Janes Defence, 27 April [Online]. Available at: <https://www.janes.com/defence-news/news-detail/increasing-stinger-missile-production-will-take-time-raytheon-ceo-says> [Accessed 4 June 2023].

² For an examination of the importance of mass, see Brazier, J. (2022) 'Mass, Mobilisation and Reserve Forces'. RUSI occasional papers [Online]. Available at: https://static.rusi.org/348_OP_Reserve_Brazier_web_final.pdf [Accessed 4 June 2023].

³ 'Russia-Ukraine Tension: Citing U.S. Intelligence, Biden Says Putin Has Decided to Invade Ukraine' (2022) *New York Times* [Online]. Available at: <https://www.nytimes.com/live/2022/02/18/world/russia-ukraine-biden-putin> [Accessed 4 June 2023]. This number does not include Russian proxy forces in Ukraine.

intelligence, surveillance, target acquisition, and reconnaissance (ISTAR) capabilities has made concealment difficult.⁴

1.4 Air superiority is likely to be periodic rather than total in future conflicts. Russia has failed to secure control of the skies over Ukraine despite possessing a numerically and technically superior air force thanks to the survival of Kyiv's ground-based air defence (GBAD) systems. Russian air losses have been high given the limited progress made. Nevertheless, despite Ukraine's large-scale GBAD capability, Russia has been able to continue to inflict damage on targets within the country. Ukraine does not have free use of its skies owing to the capabilities of Russian combat aircraft and the GBADs Moscow has stationed near the front lines.⁵

1.5 UAVs have proven to be critical to operations at every level from battlefield reconnaissance to strikes against targets deep inside Ukraine and Russia. High loss rates have been balanced by the relatively low cost of such systems and the comparative safety of the human operator. Mirroring this, efforts to counter UAVs, including through kinetic (missile and gun-based) systems and electronic attacks, have proven vital to improving the survivability of those targeted. Similarly, Ukraine has deployed uncrewed surface vessels (USVs) in attempts to strike Russian maritime targets and is developing an uncrewed underwater vehicle (UUV) capability.⁶

2. The above notwithstanding, we are currently in a period of flux within Europe that results in this being a poor time to make some long-term defence decisions. At the time of writing, the 2023 Ukraine offensive into Russian-occupied territory appears to be commencing, and it could have any outcome ranging from the

⁴ Zabrodskyi, M; Watling, J; Danylyuk, O.V. and Reynolds, N. (2022) 'Preliminary Lessons in Conventional Warfighting from Russia's Invasion of Ukraine: February–July 2022'. RUSI, p.53-55. [Online]. Available at: <https://static.rusi.org/359-SR-Ukraine-Preliminary-Lessons-Feb-July-2022-web-final.pdf> [accessed 4 June 2023].

⁵ For analysis, see Bronk, J; Reynolds, N. and Watling, J. (2022) 'The Russian Air War and Ukrainian Requirements for Air Defence' RUSI special report, 7 November [Online]. Available at: <https://static.rusi.org/SR-Russian-Air-War-Ukraine-web-final.pdf> [Accessed 4 June 2023]

⁶ Ozberk, T. (2023) 'Russian Intelligence Ship Seemingly Hit By Ukrainian USV' Naval News, 26 May [Online]. Available at: <https://www.navalnews.com/naval-news/2023/05/russian-intelligence-ship-seemingly-hit-by-ukrainian-usv/> [Accessed 4 June 2023]; Sutton, H. (2023) 'Innovative Submarine Drone Is Ukraine's New Weapon Against Russian Navy'. Naval News, 10 May [Online]. Available at: <https://www.navalnews.com/naval-news/2023/05/innovative-submarine-drone-is-ukraines-new-weapon-against-russian-navy/> [Accessed 4 June 2023].

Ukrainians rapidly becoming bogged down to a broad collapse of Moscow's forces. The result of at least the current phase of the Russia-Ukraine War and the security implications, both in narrow terms and in the context of Russia's future trajectory, should be clearer by the time of the defence review which is expected to take place after the next general election.

Key threats faced

3. Russia remains the single greatest security challenge faced directly by the UK.
 - 3.1 Britain's aid to Ukraine to support its defence from Russian aggression is fully morally and legally legitimate. It is easy to underappreciate the role the UK has played in the war in Ukraine. In concert with its allies, Britain has publicly supplied Ukraine with military, financial and technical aid that has facilitated the large-scale depletion of Russian forces. The decision to support Ukraine in the aftermath of the 2014 seizure of Crimea and the Russian attack into eastern Ukraine through training and defence reform assistance, the delivery of arms immediately before the 2022 invasion and the subsequent provision of some of the most capable systems the UK possess have played a major role in facilitating Ukrainian resistance.⁷
 - 3.2 We should not be excessively reliant on history to make judgements about the future. However, it is undeniable that Russia in its various incarnations has made repeated recoveries from major defeats. Critical economic, political, demographic and technological weaknesses plus the role of nuclear weapons hinder future Russian options. Nevertheless, the prospect of a "vindictive" postwar Russia threatening the UK recently raised by Air Chief Marshal Sir Mike Wigston is very real.⁸ The likely best-case short-to-medium-term scenario for Russia-Western relations is that Putin's government is replaced by a technocratic leadership which focuses on

⁷ House of Commons Library Research Briefing (2022) *Military assistance to Ukraine 2014-2021*, 4 March. Available at: <https://researchbriefings.files.parliament.uk/documents/SN07135/SN07135.pdf>; Mills, C. (2023) House of Commons Library Research Briefing (2023) *Military assistance to Ukraine since the Russian invasion*, 23 May [Online]. Available at '<https://commonslibrary.parliament.uk/research-briefings/cbp-9477/> [Accessed 4 June 2023].

⁸ Ashton, B. (2023) 'RAF chief warns Russia 'is a direct threat to UK' if Putin loses Ukraine war' 27 May. *Metro* [Online]. Available at: <https://metro.co.uk/2023/05/27/raf-chief-warns-russia-is-direct-threat-to-uk-if-putin-loses-war-18855044/> [Accessed 4 June 2023].

economic recovery rather than external aggression (although it would likely retain its rhetorical belligerence). At worst, Russia may become something akin to a garrison state through a broader mobilisation of national resources for military ends.

3.3 Russia has already announced plans to expand the total strength of its armed forces to 1.5 million, which will include the reforming of the Moscow and Leningrad military districts and the expansion of several land force brigades to divisions.⁹ Such an effort would likely require significant further forced mobilisation and industrial effort, and it is questionable as to whether the political will and popular support to go down this path currently exists. It must be noted that Russia only spent approximately 4.1 per cent of its GDP on defence in 2022 (compared to 3.7 per cent in 2021), still only a fraction of the percentage during the Soviet era – although the war with Ukraine is causing this to significantly increase.¹⁰ Given time, an ability and willingness to expose the population to significant deprivation, and a willingness of external partners to at least passively support the bypassing of sanctions, Moscow has significant potential to regenerate and expand its military power.

3.4 It is important to note that most of the resources which threaten the UK directly have not been depleted in Ukraine. Moscow's ability to threaten sea lines of communication – chiefly through the use of submarines and maritime strike aircraft – and conduct other maritime operations including threatening undersea cables and pipelines remain unaffected. Similarly, the submarines, ships and bombers that could be utilised to deploy missiles against the UK remain intact, although it will take Russia several years to replace the munitions expended in Ukraine.

⁹ Eckel, M. (2022) 'Russia Proposes Major Military Reorganization, Conscription Changes, Increase In Troop Numbers', 23 December. RFE [Online]. Available at: <https://www.rferl.org/a/russia-military-reorganization-expansion/32190811.html> [Accessed 4 June].

¹⁰ 'World military expenditure reaches new record high as European spending surges' (2023) SIPRI press release [online]. Available at: <https://www.sipri.org/news/2023/world-military-expenditure-reaches-new-record-high-european-spending-surges-0> [Accessed 4 June 2023]; 'Russia's defence spending jumped 282% y/y to \$26 bln in Jan-Feb -budget data' (2023). Reuters [Online]. Available at: <https://www.reuters.com/world/europe/russias-defence-spending-jumped-282-yy-26-bln-jan-feb-budget-data-2023-05-15/> [Accessed 4 June 2023].

- 3.5 Russia currently possesses an estimated 4,489 nuclear warheads, of which around 1,674 are strategic warheads deployed on ground- and submarine-launched ballistic missiles and bombers, with the remainder comprising approximately 999 strategic warheads and 1,816 nonstrategic warheads held in reserve.¹¹
- 3.6 UK peacetime commitments to the defence of Europe are spearheaded by a British Army-led battlegroup-level deployment of around 900 personnel to Estonia plus approximately 140 soldiers in Poland. These are periodically augmented during exercises. The UK also frequently deploys aircraft on NATO taskings such as the Baltic Air Policing mission. Vehicle and munitions storage facilities remain in Germany, as well as training sites and a bridging unit. Additionally, there are regular deployments across Europe during exercises and a strong institutional presence within NATO. The Joint Expeditionary Force (JEF) also provides an avenue for defence activities.
- 3.7 In the event of a major conflict involving NATO in Eastern Europe, the UK would likely seek to deploy a balanced air-land-sea force for operations in the region (the land force is eventually planned to be centred around a 'Warfighting Division'), plus an adequate force for operations in the major maritime domains, while retaining assets for homeland defence.
4. China is the other great power malign actor faced by the UK and its allies.
- 4.1 While links between London and Beijing have deteriorated since the 2010s, there has been a reluctance to label the PRC as a threat, with the recent Integrated Review Refresh referring to the country as “an epoch-defining and systemic challenge”.¹² This hesitancy is to some degree understandable given the need to remain engaged with Beijing concerning issues such as climate change and the global economy. However, the refusal to accept

¹¹ Kristensen, H; Korda, M. and Johns, E. (2023) ‘Nuclear Notebook: Russian Nuclear Weapons, 2023’, Federation of American Scientists, 8 March 2023 [Online]. Available at: <https://fas.org/publication/nuclear-notebook-russian-nuclear-weapons-2023/> [Accessed 4 June 2023].

¹² HM Government (2023) *Integrated Review Refresh 2023: Responding to a more contested and volatile world* [Online]. 6 & 30. London: HMSO. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1145586/11857435_NS_IR_Refresh_2023_Supply_AllPages_Revision_7_WEB_PDF.pdf [Accessed 4 June 2023].

difficult realities may leave the UK exposed and forced to make major strategic decisions at short notice in the event of a crisis.

- 4.2 Taiwan is likely to be the most dangerous flashpoint between China, the US and its allies for at least the next 20 years. The UK does not recognise Taiwan as a state and believes that the dispute over the governance of the territory should be resolved “through dialogue, in line with the views of the people on both sides of the Taiwan Strait”.¹³ However, it is very difficult to believe that Britain would stand neutral should Beijing inflict the extreme violence – likely many times the intensity of that seen in Ukraine – on Taiwan required to successfully invade.
- 4.3 Britain retains a network of regional links in the Indo-Pacific. These include through the Five Powers Defence Arrangements (FPDA) with Australia, New Zealand, Singapore and Malaysia. The FPDA does not constitute a formal mutual defence agreement, but it is near-unthinkable that Britain would not come to the aid of members if they were to become involved in a conflict with China. There are also British territories in the form of the Pitcairn Islands in the Pacific and the British Indian Ocean Territory in the Indian Ocean. The latter includes Diego Garcia, which hosts a Joint US-UK base that would likely feature heavily in any regional conflict. Additionally, there is a British naval facility in Singapore and a presence in Bruni. Two deployed *River*-class patrol vessels are expected to be soon joined by the Littoral Response Group (South) led by RFA *Argus* and incorporating a Royal Marine detachment. An *Astute*-class submarine will be forward-based in Australia as soon as 2027.
- 4.4 NATO is not traditionally perceived to cover the Pacific region, with the founding treaty’s Article 5 stating that “the parties agree that an armed attack against one or more of them in Europe or North America shall be considered an attack against them all”. However, a conflict which involved attacks on the North American continent – for example against US Navy facilities in San Diego on the US west coast – would be covered by the treaty. Alaska –

¹³ House of Commons Library (2022) *UK-Taiwan friendship and cooperation* [Online] p.2. (CDP-0031 (2022)). Available at: <https://researchbriefings.files.parliament.uk/documents/CDP-2022-0031/CDP-2022-0031.pdf> [Accessed 4 June 2023].

including the Aleutian Islands – is similarly covered.¹⁴ In the aftermath of the 11 September attacks, NATO airborne early warning and control aircraft were deployed to the US from Europe to support the defence of its airspace.¹⁵

4.5 A popular thread of thought is that European NATO powers including the UK should concentrate on defending Europe from Russia to allow for a US focus on the Indo-Pacific. This is logical for peacetime purposes, but recent history does not support the idea that active conflicts are wholly ignored in favour of guarding against those that are hypothetical. During the Falklands War, most of the active Royal Navy was deployed 8,000 miles away to the South Atlantic despite its primary mission being to serve a key wartime role against the Soviet Union and East-West tensions being at a high point. The Korean War also saw a significant British military commitment.

5. State-based threats beyond the Great Powers, both real and potential, remain significant.

5.1 Iran continues to exert a negative influence throughout its region and – including with its sale of munitions to Russia for use in Ukraine – beyond. It has advanced its nuclear programme, including through uranium enrichment, but does not appear to have yet decided to build a nuclear weapon.¹⁶ Israel will not accept a nuclear-armed Iran, and while less than enthusiastic about further involvement in the Middle East, it is unlikely the US will either. Domestic protests in Iran point to popular dissatisfaction with the government and economy, and this push for change may intensify when 84-year-old Ali Khamenei's reign comes to an end. The UK's regional presence includes HMS *Jufair* in Bahrain, which hosts a frigate and a mine countermeasures force, as well as the United Kingdom Joint Logistics Support Base (UKJLSB) in Oman.

¹⁴ Erskine, A. (2022) 'The Western Flank: The Geosecurity Periphery NATO Forgot It Had'. *Journal of Indo-Pacific Affairs*, 14 March [Online]. Available at: <https://www.airuniversity.af.edu/JIPA/Display/Article/2964827/the-western-flank-the-geosecurity-periphery-nato-forgot-it-had/#sdendnote53sym> [Accessed 4 June 2023].

¹⁵ 9/11 and Beyond: The Day After – NATO AWACS (2016) NATO, 2 November [Online]. Available at: https://www.nato.int/cps/en/natohq/declassified_137124.htm#:~:text=NATO%20AWACS,airspace%20and%20prevent%20further%20attacks [Accessed 4 June 2023].

¹⁶ Gambrell, J. (2022) 'Analysis: Iran now speaking openly on nuclear bomb prospects'. AP, 4 August [Online]. Available at: <https://apnews.com/article/middle-east-iran-dubai-nuclear-d96093efcf1e6b8581138b9db48cbdec> [Accessed 4 June 2023]

- 5.2 North Korea remains belligerent, and the Korean War is still suspended as a frozen conflict rather than formally concluded. Pyongyang is armed with a range of nuclear, chemical and potentially biological weapons, plus a spectrum of ballistic missiles including models capable of reaching the US and an advanced cyber warfare programme. It is to be assumed that the Pyongyang regime's priority remains self-preservation, which in theory means that its military's primary goal is to deter external attacks and suppress internal threats rather than launching large-scale offensive operations. However, as seen in Ukraine, miscalculation is always a risk. The UK has no treaty commitments to the defence of South Korea but has made a strong commitment to resisting renewed attack from the North and remains a member of the United Nations Command.¹⁷
- 5.3 Latent threats exist from nations that are not currently hostile but may undergo shifts in posture. These may be the result of policy changes by governments, or changes in governments themselves. Pakistan is potentially the most dangerous global risk, being economically and politically unstable and armed with nuclear weapons.
- 5.4 State failure where the government is no longer able to exercise jurisdiction over all its territory or is absent entirely is an increasing risk. Sectarian, religious and tribal conflict, criminality, corruption and environmental degradation – often worsened by climate change – are all significant risk factors. Ungoverned spaces can play host to terrorist groups.
6. Terrorism and other forms of extremism and criminality are an indefinite threat.
- 6.1 The UK remains a member and active participant in the anti-ISIS coalition with a focus on Iraq and Syria. Wider anti-terrorism operations take place globally in coordination with other bodies including the security services and the UK's allies.
- 6.2 Domestically, the Armed Forces provide support to the UK Government's anti-terrorism efforts, chiefly through intelligence gathering, the

¹⁷ House of Commons Library (2017) *UK defence obligations to South Korea* (No.CBP08100), p.2 [Online]. Available at: <https://researchbriefings.files.parliament.uk/documents/CBP-8100/CBP-8100.pdf> [Accessed 4 June 2023].

augmentation of armed civilian policing and the provision of special forces and explosive ordinance disposal.

- 6.3 Countering the smuggling of drugs, military contraband and the enforcement of sanctions has long been a military task. As new dual-use technologies which have both a legitimate civilian purpose and the potential for weaponisation become more common, such activity will become more critical.

Capability gaps and readiness

7. The UK Armed Forces have a broad range of capability gaps and readiness shortfalls. Although I will largely refrain from doing so here, analyses of shortcomings such as these tend to produce 'shopping lists' for additional systems. This can be harmful in that it limits imagination as to how challenges can be addressed by recommending that 'more of the same' or 'the same but better' systems be purchased. However, there is also an increasing tendency amongst officials to use claims that critics of policy decisions have an emotional attachment to particular systems or methodologies as a defence mechanism to dismiss accurate claims of capability cuts. There is also a trend to lean on solutions that have limited tangibility such as cyber capabilities to cover for the loss of tangible assets. This generates a suspicion that those making funding decisions to some extent see intangibility as "a feature, not a bug" that allows them to bypass transparency and accountability.
8. As has been widely observed, the British Army is the service with the most significant shortcomings. Under current plans, numbers will be reduced to 73,000 regular personnel. Outstanding or near-future capability, resource and readiness shortfalls facing the British Army are substantial.
 - 8.1 It is planned to retire its fleet of Warrior Infantry Fighting Vehicles (IFV) without a comparable turreted replacement, instead relying on the Boxer armoured personnel carrier (APC).

8.2 There is a lack of funding for new and upgraded systems. Notably, the NAO Equipment Plan report of November 2022 notes that resources are only available to procure:

- 1,016 Boxer APCs out of a requirement for 1,305
- 61 Multiple Launch Rocket Systems (MLRS) of a requirement for 75, plus only eight recovery vehicles out of a requirement for 10¹⁸

8.3 It is planned to reduce the Challenger 2 tank fleet to 148 Challenger 3 variants. While it should be noted that Russia's loss (as of June 2023) in Ukraine of more than 2,000 tanks has reduced the short-medium term threat the British Army might have to face in Europe, it has also underlined that mass and attrition are still major factors in warfare. Additionally, ammunition shortages for the Challenger 2's unique 120mm rifled main gun have long been suspected and are noted on one of the slides concerning the status of Ukraine's forces (14 Challenger 2s have been transferred to Kyiv) leaked in the US in April 2023.¹⁹

8.4 The Ajax programme to replace the combat vehicle reconnaissance (tracked) (CVR (T)) family of vehicles has suffered from well-known problems including noise and vibration issues.²⁰ Ordered in 2014, it is not now due to obtain an initial operational capability until between July and December 2025, and a full operational capability between October 2028 and September 2029. Until then, the Warrior IFV – a platform not designed for the role – will act as a “surrogate” for the vehicle.²¹ It is also unclear if and how this will impact the survivability of Army infantry given Boxer, now Warrior's effective replacement, has yet to enter service.

¹⁸ National Audit Office (2022) *The Equipment Plan 2022 to 2032: Ministry of Defence*, p.20 [Online]. Available at: <https://www.nao.org.uk/wp-content/uploads/2022/11/NAO-Report-The-equipment-plan-2022-to-2032.pdf> [Accessed 4 June 2023].

¹⁹ Arkin, W.M. (2023) 'Read the Leaked Secret Intelligence Documents on Ukraine and Vladimir Putin'. *Newsweek*, slide image 19 [Online]. Available at: <https://www.newsweek.com/2023/05/05/read-leaked-secret-intelligence-documents-ukraine-vladimir-putin-1794656.html> [Accessed 4 June 2023].

²⁰ House of Commons Library (2023) 'Ajax: The British Army's troubled armoured vehicle programme' (Number 9764) p.5 [Online]. Available at: <https://researchbriefings.files.parliament.uk/documents/CBP-9764/CBP-9764.pdf> [Accessed 4 June 2023]

²¹ *Ibid*, p.19

- 8.5 The readiness of the AS-90 self-propelled artillery fleet was regarded as low before the invasion of Ukraine. With the decision to donate 30 vehicles to Ukraine, this situation will have worsened. The announcement that the UK will purchase 14 Archer artillery systems from Sweden is to be welcomed, but a full recapitalisation is required.
- 8.6 The air and missile defence capabilities of the British Army remain inadequate. The war in Ukraine has demonstrated the importance of defending against cruise and ballistic missiles, loitering munitions, drones, attack helicopters and combat aircraft. The British Army holds responsibility for all but a single UK ground-based surface-to-air missile unit. Only one medium-range and one short-range SAM regular regiments, plus one short-range Army Reserve regiment, are in existence. Ballistic missile defences are absent. Electromagnetic and laser defence systems are largely still in development.
- 8.7 Defence industry limitations have led to replacements for the roughly 6,000 NLAW anti-tank systems delivered to Ukraine in 2022 only beginning to be delivered at scale in 2024.²² Similar bottlenecks in the procurement of 155mm artillery ammunition to replace donated stocks are also likely. The losses suffered by Russia in that conflict will mitigate the risk of the reduced UK stockpile in the short term.
- 8.8 There is an absence of regular Army close support artillery, engineering, REME and logistics support within the 4th Light Brigade Combat Team, with only Army Reserve units in these roles attached.²³ This leaves the brigade unusable at short notice. It should be asked if the mix of combat and support units in the regular Army is unbalanced towards the former, particularly in terms of infantry.
- 8.9 There is a lack of air transport (chiefly sourced from the RAF) to support the 'Persistent Engagement' strategy outlined in the 2021 Integrated Review and the subsequent Defence Command Paper. The forward deployment of

²² Ministry of Defence (2022) 'UK orders thousands more anti-tank weapons to bolster stockpiles', 7 December, Press Release [Online]. Available at: <https://www.gov.uk/government/news/uk-orders-thousands-more-anti-tank-weapons-to-bolster-stockpiles> [Accessed 4 June 2023].

²³ British Army (2021) *Future Soldier Guide*, p.40 [Online]. Available at: https://www.army.mod.uk/media/15057/adr010310-futuresoldierguide_30nov.pdf [Accessed 4 June 2023].

special forces, elements of the Army Special Operations Brigade and Security Forces Assistance Brigade will require extensive fixed and rotary winged air transport support. This is before the exercise and wartime requirements of other more conventional Army units are factored in.

8.10 An issue that is likely linked to the lack of air transport capacity has been the news that the MoD is looking to outsource parachute training to the private sector, with a contract opportunity of up to eight years running from Q1 2025 having been recently published.²⁴

8.11 The accession of Finland to NATO has substantially expanded the organisation's land border with Russia. Finland is also an Arctic nation, as is likely soon to join Sweden. The UK has historically taken a significant role in supporting NATO's 'northern flank' – traditionally centred around Norway. Even before they applied to join NATO, the UK worked with Finland and Sweden amongst others through the Joint Expeditionary Force (JEF). Force reductions and changes in approach have resulted in the end of the ability of 3 Commando Brigade, historically the lead UK northern flank land formation, to deploy at brigade strength. Given the increased importance of the High North, there could be a higher demand for land formations with appropriate Arctic/cold weather training and equipment. The Army has made some advances in this area, but more can still be done to ensure an adequate capacity to operate in this increasingly important region.²⁵ The MoD's 2022 Arctic defence strategy document, *The UK's Defence Contribution in the High North*, outlines current departmental efforts but is short on quantifiable specifics.²⁶

8.12 More broadly, during the Cold War, the British Army was generally split between a 'heavy' force orientated towards the defence of European NATO and a lighter 'out of area' force which while retaining a NATO mission was

²⁴ Thomas, R. (2023) 'UK MoD looks to private sector for military parachute training'. Airforce Technology [Online]. Available at: <https://www.airforce-technology.com/news/uk-mod-looks-to-private-sector-for-military-parachute-training/> [Accessed 4 June 2023].

²⁵ For an example of recent Army Arctic training, see: 'Paratroopers 'break the ice' with JEF and NATO allies' (2023). British Army, 22 March [Online]. Available at: <https://www.army.mod.uk/news-and-events/news/2023/03/paratroopers-break-the-ice-with-jef-and-nato-allies/> [accessed 4 June 2023].

²⁶ Ministry of Defence (2022) *The UK's Defence Contribution in the High North* [Online]. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1063855/The_UK_s_Defence_Contribution_in_the_High_North.pdf [Accessed 4 June 2023].

available for other contingencies, as was demonstrated during the land phase of the Falklands War. It is now questionable as to whether the British Army could engage in an expeditionary operation of any real scale without jeopardising its NATO commitments.

9. Outstanding or near-future capability, resource and readiness shortfalls facing the Royal Navy (RN), Royal Fleet Auxiliary (RFA) and Royal Marines (RM) are also significant.

9.1 Delays to the Type 26 frigate programme have resulted in the Type 23 frigate force being run on far past its expected lifespan. Refits to extend their lives have become more expensive as additional problems have been discovered. At present, there are only 11 frigates in service, with recent suggestions that this may soon fall to 10 as a result of HMS *Westminster* being retired earlier than planned due to its level of deterioration and the cost of repairs.²⁷

9.2 RFA *Fort Victoria* is the only RFA solid stores ship and is critical to the operation of the UK carrier strike group. Despite this, it is reported that the ship is now at reduced readiness due to personnel shortages.²⁸ While it is planned to return the ship to service in time for a deployment to the Indo-Pacific in 2025, it remains an elderly single point of failure, with three replacement vessels only just ordered under the Fleet Solid Support Ship Programme (FSSP) with the delivery of the first ship planned (likely optimistically) for 2028. Additionally, the two *Wave*-class tankers are now at extended readiness.²⁹

9.3 Delays to the *Astute*-class attack submarine programme have resulted in a dip in available vessel numbers. Even when complete, only seven submarines will be procured. These will not only have to cover all current tasks but also, from 2026, “increase visits” to Australia in support of the

²⁷ Navy Outlook (2023) ‘HMS Westminster refit suspended and her return to service in doubt’ [Online]. Available at: <https://www.navylookout.com/hms-westminster-refit-suspended-and-her-return-to-service-in-doubt/> [Accessed 4 June 2023].

²⁸ Naval Outlook (2023) Twitter 25 May [Online]. Available at: <https://twitter.com/NavyLookout/status/1661677820832100354> [Accessed 4 June 2023].

²⁹ Thomas, R. (2023) ‘What fate awaits UK Wave-class fast fleet tankers?’ Naval Technology [Online]. Available at: <https://www.naval-technology.com/news/what-fate-awaits-uk-wave-class-fast-fleet-tankers/> [Accessed 4 June 2023].

AUKUS programme followed by the rotational presence of an *Astute*-class submarine “As early as 2027”.³⁰

- 9.4 The Type 45 destroyers have suffered serious issues with their propulsion system, leading to the Power Improvement Project (PIP) upgrade to replace the two existing diesel generators with three more powerful models. Delays to this programme have impacted availability.
- 9.5 The aircraft carrier HMS *Prince of Wales* has suffered from well-publicised propeller shaft issues, making it unavailable. However, repairs are reportedly well advanced and it should have recommenced operations (following further upgrades and a period of maintenance) by autumn 2023.
- 9.6 A decision has been made to utilise the more than four-decade-old RFA *Argus* as the lead ship of the Littoral Response Group (South), which will operate in the Indo-Pacific. While this is the correct decision given the assets available, it is inescapable that the ship is now 42 years old and will inevitably be increasingly prone to mechanical and other issues as time passes.
- 9.7 The Royal Navy’s Merlin HM2 fleet has only 30 aircraft but is tasked with both most Navy airborne anti-submarine warfare missions (Wildcat HMA2 helicopters do not possess a dipping sonar) and Airborne Surveillance and Control taskings (when fitted with the Crowsnest system).
- 9.8 The recent news that the Type 31 frigate will receive the Mk.41 vertical launching system (with 32 missile launch cells) as is already planned for the Type 26 (with 24 Mk.41 launch cells) is welcome. However, it will require significant additional procurement of munitions for their utility to be fully realised.
- 9.9 Delays in ordering the *Dreadnought*-class ballistic missile submarines to replace the *Vanguard*-class have led to the latter having to continue in service beyond their design life. While the material state of the vessels is

³⁰ White House (2023) ‘FACT SHEET: Trilateral Australia-UK-US Partnership on Nuclear-Powered Submarines’. Press release. 13 March [Online]. Available at: <https://www.whitehouse.gov/briefing-room/statements-releases/2023/03/13/fact-sheet-trilateral-australia-uk-us-partnership-on-nuclear-powered-submarines/> [Accessed 4 June 2023].

publicly unknown, the *Resolution*-class Polaris missile-carrying submarines were known to have had a number of technical problems towards the end of their lives. The longest-serving *Resolution*-class remained in service for 28 years. The longest-serving British nuclear submarine was operational for 33 years. HMS *Vanguard* was commissioned 30 years ago and will likely serve into the 2030s.

9.10 A decision has been made to pivot the Royal Marines away from mass and towards a forward-based littoral model utilising small units supported by advanced technology. While such formations undoubtedly have utility in some circumstances, there are doubts over how resilient these groups would be in all but relatively benign circumstances. Brigade-scale Royal Marine landings are no longer envisaged.

10. The RAF faces a number of outstanding or near-future capability, resource and readiness shortfalls.

10.1 There is a shortfall in combat aircraft numbers. The retirement of 30 Tranche 1 Typhoon aircraft in 2025 (with the majority of their airframe lives remaining³¹) will leave only 107 Typhoons in service. 48 F-35B aircraft should be delivered by the end of 2025, but these will be jointly operated by the Royal Navy and will have a commitment to carrier operations. Additional orders are planned to bring the F-35B fleet size to 74 and plans to further increase the use of UAVs will eventually help mitigate shortfalls, but the low number of airframes will endure for the rest of the decade at least.

10.2 There is a shortfall in fixed-wing transport aircraft numbers and capabilities. The imminent retirement of the C-130J Hercules will reduce net air transport capacity and create a special force support capability gap which will last until at least 2025.³² This is not to argue that the

³¹ Jennings, G. (2023) 'Upgrade and retention of Tranche 1 Eurofighters 'technically feasible', BAE Systems tells UK Parliament'. Janes, 3 February [Online]. Available at: <https://www.janes.com/defence-news/news-detail/upgrade-and-retention-of-tranche-1-eurofighters-technically-feasible-bae-systems-tells-uk-parliament> [Accessed 4 June 2023].

³² Jennings, G. (2023) 'RAF confident of complete capability transition to A400M by 2025'. Janes, 19 May. [Online] Available at: <https://www.janes.com/defence-news/news-detail/raf-confident-of-complete-capability-transition-to-a400m-by-2025> [Accessed 4 June 2023].

A400M Atlas is not a superior aircraft in many respects, and more suitable to global tasking given its greater range and payload. However, France and Germany are A400M operators and are also procuring new C-130J aircraft for specialist tasks.³³ The NAO Equipment Plan report of November 2022 notes that plans for additional A400M have been judged unaffordable.³⁴ Even if resources were made available, delivery would take considerable time.

10.3 There have been delays in ordering 14 new model Chinook helicopters with extended ranges due to budget shortfalls. The order is still pending review, and aircraft deliveries are not due to be complete until the end of 2030.³⁵ There is a need not only to replace older Chinooks but also the utility of the new model's increased range will help cover some tasks previously assigned to the C-130J fleet and in supporting the Persistent Engagement strategy.

10.4 Since the retirement of the Air-Launched Anti-Radiation Missile (ALARM) at the end of 2013, the RAF has been without a dedicated Suppression of Enemy Air Defence/Destruction of Enemy Air Defence (SEAD/DEAD) capability. The importance of being able to destroy or force an opponent to deactivate their radar systems has been underlined in Ukraine, with the US supplying a number of similar AGM-88 HARM (High-speed Anti-Radiation Missile) for firing from suitably modified aircraft.³⁶ As noted, Russia's inability to shut down Ukraine's air defence system has resulted in it failing to obtain freedom to operate over Ukrainian territory. The planned introduction by the UK of the SPEAR 3 missile with a multi-mode seeker and a range of around 80 miles could – particularly if used

³³ Machi, V. (2021) 'France, Germany launch joint tactical air squadron and training center' 2 September [Online]. Available at: <https://www.defensenews.com/global/europe/2021/09/02/france-germany-launch-joint-tactical-air-squadron-and-training-center/> [Accessed 4 June 2023].

³⁴ National Audit Office (2022) *The Equipment Plan 2022 to 2032: Ministry of Defence*, p.20 [Online]. Available at: <https://www.nao.org.uk/wp-content/uploads/2022/11/NAO-Report-The-equipment-plan-2022-to-2032.pdf> [Accessed 4 June 2023].

³⁵ Thomas, R. (2023) 'UK Chinook CH-47ER delivery subject to late-2023 review'. Army Technology, 23 May [Online]. Available at: <https://www.army-technology.com/news/uk-chinook-ch-47er-delivery-subject-to-late-2023-review/> [Accessed 4 June 2023].

³⁶ This is a repeat of a similar RAF experience during the Falklands War when Vulcan bombers were hurriedly adapted to carry US-supplied Shrike missiles to attack radars deployed at Port Stanley.

in conjunction with the F-35B's electronic warfare system – provide a new SEAD/DEAD capability.³⁷

- 10.5 There have been failures in the pilot training system. It has been widely reported that the RAF pilot training pipeline is suffering from serious shortfalls, leading students to be potentially waiting for extended periods for places despite a multi-year effort to fix the problems.³⁸
- 10.6 The decision to procure only nine Poseidon MRA1 has resulted in only a limited maritime patrol capability that would be dependent on allied augmentation in a crisis. It should be recalled that in 1996, near the height of optimism regarding relations with Russia, an order was placed to procure 21 Nimrod MRA4 aircraft.
- 10.7 Similarly, the decision to purchase only three Wedgetail AEW1 airborne early warning and control aircraft – itself a reduction from the planned five – will present serious operational challenges. The E-3D Sentry fleet was originally seven aircraft strong. The recent revelation that the RAF will still be taking delivery of all five radars originally ordered makes the cut from five to three aircraft even more difficult to justify.³⁹
- 10.8 The RAF's force of Poseidon MRA1, Wedgetail AEW1, RC-135W Rivet Joint and C-17 Globemaster aircraft all lack an in-flight refuelling probe to make them compatible with the RAF Voyager tanker fleet. This is in contrast to their Nimrod MR2 (replaced by Poseidon), E-3D Sentry (replaced by Wedgetail) and Nimrod R1 (replaced by Rivet Joint) predecessors. The new aircraft are compatible with the boom-receptacle in-flight refuelling system used by the US Air Force amongst others. One solution would be to fit the Voyager aircraft with booms.

³⁷ Bronk, J. (2023) 'Getting Serious About SEAD: European Air Forces Must Learn from the Failure of the Russian Air Force over Ukraine'. *RUSI Defence Systems* Vol.24 (Online). Available at: <https://rusi.org/explore-our-research/publications/rusi-defence-systems/getting-serious-about-sead-european-air-forces-must-learn-failure-russian-air-force-over-ukraine> (Accessed 4 June 2023).

³⁸ Haynes, D. (2023) 'Trainee RAF pilots face year-long wait to start flying lessons due to training 'shambles''. Sky News, 26 May [Online]. Available at: <https://news.sky.com/story/trainee-raf-pilots-face-year-long-wait-to-start-flying-lessons-due-to-training-shambles-12889921> [Accessed 4 June 2023].

³⁹ Allision, G. (2023) 'UK forced to pay for five radars despite cutting Wedgetail order'. UK Defence Journal, 6 May [Online]. Available at <https://ukdefencejournal.org.uk/uk-forced-to-pay-for-five-radars-despite-cutting-wedgetail-order/> [Accessed 4 June 2023].

10.9 The RAF lacks its own kinetic ground-based air defence systems, a capability which was steadily lost as a result of post-Cold War cutbacks. It also lacks an anti-ballistic missile capability. Such systems would be vital for airfield defence against a capable opponent.

10.10 There has recently been a pivot by the RAF towards training for dispersed operations to reduce the risk of strikes against aircraft located in a single predictable location.⁴⁰ This tactic proved critical in preserving the Ukrainian Air Force from destruction during Russia's invasion attempt. Sweden and Finland are amongst the nations that use this practice, including operating aircraft from suitable strips of roadway. Such operations should be normalised and additional resources diverted to support them.

A 'Tier One fighting force'?

11. It is difficult to precisely define what a Tier One force is. Categorisation of this type is arbitrary and not very helpful given no two forces are directly comparable and different components of a single military may be operating at different levels of capability. Funding, size, capability, personnel, reach & sustainment, reputation, influence and industrial base have all been identified as factors.⁴¹ Currently, it is probably correct to say that the US possesses the only Tier One military in the world. Placing the UK in the Tier Two category is also problematic given various shortfalls and the increasing number of militaries that have to some extent qualitatively caught up with the UK while retaining greater mass. Nevertheless, Tier Two is the most appropriate designation for the UK Armed Forces.

12. If we simplify the definition of Tier Two as being able to project power globally at short notice at a level that is at least compatible with operating alongside the US, the UK presents a mixed picture. The RAF and Royal Navy possess some highly developed capabilities but are both seriously constrained in

⁴⁰ Robinson, R. (2023) 'Disperse and survive'. Royal Aeronautical Society, 5 May [Online]. Available at: <https://www.aerosociety.com/news/disperse-and-survive/> [Accessed 4 June 2023].

⁴¹ Bagwell, G. (20??) 'Is the UK a Tier 1 military power?' Royal Aeronautical Society, slide 10. [Online]. Available at: <https://www.aerosociety.com/media/9981/01-greg-bagwell.pdf> [Accessed 4 June 2023].

mass, as well as resilience shortfalls in areas such as munitions stockpiles. The British Army has, certainly in terms of mechanised warfare, fallen badly behind its peers and will not return to a level matching the UK's ambition of being able to field a 'Warfighting Division' until the 2030s under current plans.

13. Possessing a Tier One force – however precisely defined – does not guarantee success, and its absence does not preordain failure even in ambitious operations. It is also not necessary for a significant number of meaningful tasks. Additionally, the UK Armed Forces will never act institutionally alone even when pursuing national tasks: an extensive diplomatic, international development and intelligence network act as critical enablers and force multipliers.
14. The UK is broadly reliant on acting within alliances to advance its interests. It cannot generally act fully independently, but its influence is often impacted by its ability to contribute. However, such methods of influence do not lend themselves well to objective measurement.
15. An important aspect of an armed forces with at least a broad spectrum of capabilities is that it complicates an opponent's decision-making. A justification given for the UK to possess an independent nuclear deterrent is that it adds a second centre of decision-making within NATO that Moscow has to take into account.⁴² A decision by the US not to act would not be the end of the matter, as the losses inflicted by the UK's far smaller nuclear forces would still be catastrophic. Similar arguments can be made concerning lesser challenges. Not being fully beholden to allies not only presents the UK with options to implement its policies within a certain limit but also influences the behaviour of its adversaries and allies.
16. The increasingly constrained ability of the US to act outside of the Indo-Pacific given the threat from China is only likely to increase the importance of the UK's ability to operate not in the total absence of the US, but without the level of support that might have previously been assumed. It will also be diplomatically important to ensure that the UK is seen to be capable of acting

⁴² Davis, I. (2015) 'The British Bomb and NATO: Six Decades of Contributing to NATO's Strategic Nuclear Deterrent'. SIPRI, p.7-10 [Online]. Available at: https://www.sipri.org/sites/default/files/files/misc/NATO-Trident-Report-15_11.pdf [Accessed 4 June 2023].

with relative independence to 'sell' the concept of continued support when the US has more pressing issues to manage. The war in Ukraine has already seen a lobbying effort – chiefly from the US right – to reduce support to Kyiv in favour of concentrating on countering China. The motives behind these calls are mixed at best – particularly given that inflicting setbacks on Moscow now will potentially allow more focus on Beijing going forward – but it is not hard to believe that they will become more mainstream in the near future.

6th June 2023