

# Professor Vince Connelly - Written evidence (IUD0012)

## Written evidence submitted by Professor Vince Connelly on Reserve Forces.

**1. Area of Interest addressed in this submission.** What does the war in Ukraine tell us about the changing character of warfare? To what extent are the lessons from the war in Ukraine applicable to UK Defence? Is there a need for the UK to increase investment in integrated air defence and missile defence in light of the war in Ukraine? What are the implications for the UK's defence priorities, including manpower?

**2. Background.** The author of this submission is an academic psychologist who has carried out research for the Army and MOD related to Regular/Reserve interactions, Reservist recruiting and retention, integration of the Whole Force and the welfare of Reservist families. He is also a serving reservist. The views expressed here are his own as an academic researcher on reserve forces. He has authored many publications on reserves and army issues ranging from a recent book on [international reserve forces](#) to a RUSI article on [improving British Army productivity](#).

**3. Summary. The conflict in Ukraine underlines the importance of access to mass for the UK Armed Forces in terms of personnel, equipment and stocks. UK costs for planned increases in equipment and stocks are already high. Costs to increase permanent regular personnel, while welcome, would be potentially prohibitively high. Other NATO nations faced with similar demands are expanding their cost-effective Reserve Forces to access personnel mass. The UK is currently not, despite now facing a warfighting concurrent demand, well beyond current structures, of 1) deploying a large fighting force to NATO, 2) forces to defend the UK homeland and 3) retaining the institutional ability to sustain and grow the Armed Forces.**

**4. Action Recommended. The UK Armed Forces need to rapidly deliver the dual purpose (volunteer and ex-regular) reserve system abandoned post-Cold War and build mass through expanded Reserve Forces to cost effectively deliver individual and collective reinforcement against concurrent warfighting demands. This will improve UK Armed Forces capability and readiness, be more affordable, contribute to deterrence and sustain the UK Armed Forces in warfighting. The UK should increase investment in integrated air and missile defence and this was traditionally a cost effective wartime role for UK Reserve Forces and is still delivered in the continental USA by Reserve Forces.**

## Main Body

**5. Questions.** What does the war in Ukraine tell us about the changing character of warfare? To what extent are the lessons from the war applicable to UK Defence? What are the implications for the UK's defence priorities, including manpower?

6. The war in Ukraine has highlighted the need for any nations Armed Forces to be able to access and to sustain conventional force mass in terms of personnel, equipment and stocks. A peer adversary, such as Russia, can mass on NATO's borders against a thin wedge of NATO trip wire forces, complete a bite and hold of key territory and then slow down conventional attacks through defence in depth tactics, shielded by a nuclear arsenal. This means there will be a requirement on NATO to prepare for attrition of stocks, equipment, and personnel, if it came to conventional war. Most NATO nations professional Armed Forces are no longer structured for sustained conventional warfighting and even the USA considers it would struggle with the forces required to sustain conflict with Russia.

7. The UK wishes to remain one of NATO's key members. The UK, after Ukraine, is now looking to provide "a comprehensive force commitment to the Alliance through a substantial offer to the new NATO Force Model (NFM) <sup>1</sup>" with "one or both of the UK divisions... at

readiness under HQ ARRC as part of that warfighting corps<sup>2</sup>” in order “to fulfil a.. ..Strategic Reserve Corps role<sup>3</sup>” and “to conduct a multi-division fight at the corps level.” This is a considerable step up in terms of scale and there have been announced investments in modernised equipment and stocks to support this aim. Yet, the UK Armed Forces are planning to achieve the NFM offer within the current regular and reserve workforce levels.

8. To deliver this increased capability to NATO would require significant enabling effort by the UK Armed Forces and, for the army, would use much, if not most of its currently deployable personnel, regular and reserve. Russian tactics shows that UK capability would need to deploy with a potential threat also hanging over the UK homeland. Thus, there would be a concurrent requirement for force generation for any National Defence Plan, while generating an institutional capability to sustain and grow the Armed Forces for a prolonged conflict. There will be significant pressure on all Front Line Commands to provide the personnel, regular and reserve, from their current structures to achieve this concurrent demand. The Armed Forces will also need a reinforcement, regeneration and a reconstitution capability to draw upon to sustain a warfight.

9. The culture of a military like Russia is also one that can potentially endure suffering and incur casualties on a scale that has not been planned for by NATO nations since the Cold War. The current numbers of casualties from the Ukraine war are well into six figures. Even the Israelis with overwhelming firepower have sustained over 7000 wounded and 500 dead in six months. As the UK Chief of the General Staff himself put it “we need to plan to reinforce and regenerate the force - for to only focus on the first echelon – i.e. those troops that we will put into battle at the start of a war - is to prepare for failure.”<sup>4</sup> And he underlined this recently by stating “Within the next three years it must be credible to talk of a British Army of 120,000, folding in our reserve and strategic reserve. But this is not enough.” This is not just an Army problem either but an issue for all the UK Front Line Commands since they all lack scale and depth.

10. Many NATO nations are facing the same issues as the UK and to increase mass of equipment, stocks and personnel have the problem of affordability and prioritisation. UK costs for planned increases in equipment and stocks are already high within a Defence budget constrained by many other factors. Costs to increase permanent regular personnel to increase mass sufficiently, while welcome, would be prohibitively high. In order to reduce costs, but still build personnel mass, most other NATO nations are rapidly expanding their Reserve Forces. For example, Germany, France, Poland, Netherlands, Czech Republic, Belgium, Rumania, Hungary not to mention the Baltic States are all expanding reserve forces. In the high North Norway is growing its Reserves, as is Sweden, and Finland already has a huge reserve capacity. It is hard not to find a European country growing its reserve forces, unlike the UK.

11. For most of the 20<sup>th</sup> Century the UK Armed Forces had a broadly dual-purpose reserve system. The Regular Reserves were a pool of personnel with previous full time regular service experience who retained a liability to be called back in a crisis. They provided much of the crucial individual backfill for regular forces on mobilisation for war. The other key reserve component were the part time volunteer reserves (now the Maritime Reserve, Army Reserve and RAF Reserve) who provided the collective capability and formed units to surge capacity and provide focused wartime reinforcement (providing utility but not equivalence to regulars). This gave the sustained depth required, providing an echelon for the deployed force, as well as a home defence capability, institutional resilience and other requirements.

12. However, the Regular Reserves were de facto abandoned by the UK Armed Forces at the end of the Cold War in 1991. The renewed focus on small to medium scale expeditionary

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<sup>1</sup>, [Defence's Response to a More Contested and Volatile World](#), Ministry of Defence CP 901, July 2023

<sup>2</sup> [“A change in ARRC-hitecture” British Army Review, 186, Spring 2024.](#)

<sup>3</sup> [“Piecing Together a picture of our future strategy” British Army Review, 186, Spring 2024.](#)

<sup>4</sup> [GGS speech to RUSI Land Warfare Conference June 2023](#)

operations had little need for a system designed for mass mobilisation. The UK volunteer reserve forces, now smaller than they have ever been, are therefore currently required to fulfill two roles, individual backfill for regular workforce gaps, and some collective capability to provide additional capability, but at such a low level that impairs meaningful training and value. Indeed, the lessons of Ukraine show that more than individual reservists are needed and that collective capability reinforcement from the reserve forces is a necessity. Ukraine experience (Bielieskov, 2023) demonstrates that having formed reservist units in place with officers and SNCO's with some training and experience providing focused collective capability helped Ukraine survive the first months of the war. Other evidence from Ukraine has demonstrated that "line holding" units are required within formations while the high value armoured formations manoeuvre and recover between tactical actions. These line holding units are often Brigade size light infantry formations capable of combined arms activity but of limited combined arms manoeuvre. This formation utility can be achieved with lower training, lower cost equipment, less logistic and transport costs and so is well suited to reserve forces.

13. If much of the current individual backfill is covered by the UK Regular Reserves then this gives conceptual freedom to design the UK volunteer reserves most effectively for collective capability. Volunteer Reserves are cost effective and for 20% of the peacetime costs<sup>5</sup> provide collective capability that can be trained effectively in peacetime to provide utility in wartime. The recent set of RUSI papers by Brazier and others<sup>6</sup> provides, using history and comparisons with our near Allies, a set of recommendations as to how UK volunteer reserve forces could be reformed so as to provide collective capability for war including reserve force brigades and collective capability for air and maritime domains. Many similar recommendations have been made repeatedly over the last few decades by commentators<sup>7</sup> and by the UK [External Scrutiny Team](#). The UK volunteer reserves trained during the Cold War to provide formed units at relatively high readiness and lower cost. These units were not expected to fulfill all the missions and tasks of regular force units but instead provided a narrower and more focused set of missions and tasks that were considered achievable when compulsory mobilized for war.

14. Readiness for reserves is often put forward as a barrier to using such forces but is often a relative measure where the point of comparison is between regular and reserve readiness rather than measuring the actual readiness and capabilities of the total force (the regular and reserves combined) compared against the force of a potential adversary. The length of time until reserves are ready is indeed important to consider but, even in a rapid deployment scenario, not all forces are needed immediately; some can deploy later in the flow, allowing reserve forces some additional time to get ready before they need to begin deployment operations and many nations including the UK have limited lift and logistics to support all units deploying concurrently anyway.

It is also not wise to rely on citizen armies grown from scratch after war has started as the sole basis for expansion. Ukraine's experience has shown that "third echelon" home grown units of citizens lacked a cadre of experienced officers and NCO's and were difficult to bring to combat effectiveness. Volunteer reserve forces provide the basis for expansion through the provision of citizens who have experienced being an officer or SNCO in the Armed Forces and this was why the UK Armed Forces used the volunteer reserve forces to successfully expand at the start of WW2 and planned to do similar in the Cold War with reserve forces home defence units.

## Recommendations for action

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<sup>5</sup> See DSTL [Cost comparison analysis of army regular and reserve sub-units](#)

<sup>6</sup> Brazier 2022 "[Mass, Mobilisation and Reserve Forces](#)", Brazier & Hockley 2023 [Maritime Reserves: Grasping the Opportunity](#) and Brazier and Mans 2023 [Depth and New Capabilities: Delivering on the RAF's Ambition for the Air Reserves](#)

<sup>7</sup> For example, see Williams, Richard & Graeme Lamb. 2010. *Upgrading our armed forces*. Policy Exchange. <https://www.policyexchange.org.uk/wp-content/uploads/2016/09/upgrading-our-armed-forces-sep-10.pdf>

15. The UK needs to re-adopt the dual purpose reserve system abandoned post-Cold War and build volunteer reserves that can cost effectively deliver collective capability in parallel with a reinvigorated Regular Reserve to provide individual reinforcement. This will substantially improve capability and readiness, be affordable, contribute to deterrence and deliver reserve forces focused on warfighting. There is ongoing work to reinvigorate the UK regular reserves and deliver more collective capability from the volunteer reserves but it is too constrained by funding, lack of equipment, poor infrastructure and culture.

16. The UK needs to expand its reserve forces. This must go beyond the planned reinvigoration of the regular reserves and seek to increase the size of the volunteer reserve forces and its collective capability. As pointed out this can be done cost effectively using current infrastructure and units as the basis for expansion.

17. The UK Armed Forces need a whole force generation and mobilisation plan for large scale conflict encompassing all the concurrent demands of large scale war. Transition to War, reinforcement and deployment plans existed in the Cold War to improve readiness and provided templates for training and a focus for experimentation. The Armed Forces will also need a reinforcement, regeneration and a reconstitution capability to draw upon to sustain a warfight. This was also present in the Cold War. While progress is being made on some of these areas acceleration is required.

18. The Ukraine war has shown that some older equipment is better than no equipment at all. The MOD process of disposal rather than mothballing or passing to the reserves needs examination and reform to provide a reserve of equipment for the expanded reserve forces.

19. Despite the military capability arguments in favour of having reserve forces that reinforce and sustains the UK Armed Forces in war, the cost effective economic sense of investing in reserve forces collective capability and the lead our allies show us in their collective use of reserves, the key risk is that the UK will spend its limited funds on the regular component to improve their already stretched readiness. This will provide some extra capability but nowhere near the mass that the war in Ukraine clearly identifies is needed to address the implications of warfighting in Europe.

### **Is there a need for the UK to increase investment in integrated air defence and missile defence in light of the war in Ukraine?**

19. Yes. Ukraine has shown how both adversaries have developed their reconnaissance strike complexes at scale and pace *"leading to synchronization of violence across an immense battlespace at depth and width, creating a combat area orders of magnitude larger than what was historically feasible"*<sup>8</sup>. This illustrates the requirement for all NATO nations to develop air and missile defence to protect deployed forces and to have credible National Defence Plans. In a large scale conflict the UK will be vulnerable to long range missile strikes, undersea attacks and even the possibility of small-scale drone attacks launched from within the UK itself.

20. The UK MoD has announced significant work to move forward to develop a National Defence Plan in the near future. The successful defence of Israel from the major drone and missile attack on the 14<sup>th</sup> April 2024 underlines the requirement for an integrated system interlocked with NATO allies but also highlights the responsibility of each nation to make a significant contribution to their own defence. The UK has not had an integrated national air defence and missile defence system, including any ground based assets, since the Cold War. During the 1980's, the UK could call upon many more fighters and ground based medium and short range air defence systems. This is no longer the case and there are far fewer fighters concentrated on a few vulnerable air bases with no ground based UK air defence assets beyond a small Army capability that is configured to protect the Army's deployed forces.

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<sup>8</sup> See [Ukraine's Lessons for Future Combat: Unmanned Aerial Systems and Deep Strike](#) by Harry Halem

21. While today's air platforms are significantly superior to the Cold War there are human limitations to consider in sustained warfighting. There appears to be, for example, no UK reserve of aircrew available to replace aircrew casualties or those exhausted in a sustained conflict as has been exposed by the air campaign in Ukraine. It is notable that Israeli Air Force squadrons include many reserve aircrew to increase aircraft daily sortie generation "by nearly two and a half times"<sup>9</sup> compared to nations like the UK. The Israeli Air Force has continued to sustain itself at a high rate of sorties for more than 6 months across a high intensity campaign. The use of reserve aircrew also means crews can specialise in mission sets and so avoid the negative issue of regular aircrew "covering far too many mission sets". A recent paper for RUSI has highlighted how a UK Reserve of aircrew could be quickly and cost-effectively built<sup>10</sup>.

22. The UK has committed to increasing its Missile Defence and has recently agreed a sale to the UK of a US Ballistic Missile Defense Radar and two Command and Battle Management and Communications nodes but it is not yet known when these would be in service nor what interceptor capability would stand alongside them. There is planned expansion of the medium range ground based air defence capability currently fielded by the Army and RN that could also contribute to close in defence of critical civil and defence infrastructure. The fielding of the DragonFire laser capability plus other anti -drone technology would also provide a vital component of a layered air defence system. Together this would all represent a significant cost to deliver and would require numerous personnel additional to current tasks and roles.

23. It is often considered that technical military tasks are beyond reservists. However, two of the few nations with a 24/7 integrated air defence and missile defence system, the US and Israel, use reservists throughout their integrated capability. For example, the US 100<sup>th</sup> Missile Defence Brigade uses a mix of part time and permanent reservists and as these individuals specialise in this role, are not posted away, then they develop deep expertise in their roles. The personnel and other costs associated with regular personnel the capability are also significantly reduced. In fact, UK ground based air defence has primarily been delegated to the Reserve Forces as a nationwide integrated capability was only truly needed in wartime, is UK based and so can be reinforced with Reservists rapidly. On 26th September 1938, 58,000 reservists were mobilised for Air Defence during the height of the Munich crisis. The members of these units had all signed an undertaking to be called up during a National Emergency at minimum notice and most were in place within 12-24hrs.

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<sup>9</sup> Brower, K (2004).

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