



HOUSE OF LORDS

International Relations and Defence Committee

Corrected oral evidence: Defence concepts and capabilities: from aspiration to reality

Wednesday 25 May 2022

10.30 am

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Members present: Baroness Anelay of St Johns (The Chair); Lord Alton of Liverpool; Lord Anderson of Swansea; Baroness Blackstone; Lord Boateng; Lord Campbell of Pittenweem; Baroness Fall; Baroness Rawlings; Lord Stirrup; Baroness Sugg; Lord Teverson; Lord Wood of Anfield

Evidence Session No. 7

Heard in Public

Questions 47 - 56

Witnesses

I: General Sir Nick Carter, former Chief of the Defence Staff, 2018-21.

Examination of witness

General Sir Nick Carter.

Q47 **The Chair:** Good morning and welcome to this meeting of the International Relations and Defence Committee in the House of Lords. Today, I welcome as a witness to our inquiry—Defence concepts and capabilities: from aspiration to reality—General Sir Nick Carter, who was Chief of the Defence Staff until last year.

Sir Nick, thank you very much indeed for joining us today. As explained, after my colleagues have asked their initial questions, I anticipate that they may wish to ask a supplementary at that stage. After that, I will open it up more to those who have not yet had the opportunity to ask a question.

As always, I remind our witness and our members that our session is broadcast on the record and is transcribed. Before we ask our questions, members should ensure, if they have any relevant interest to declare, they so at that point.

As always, I start with a rather general scene-setting question before my colleagues then take more focused questions. To set the scene, you were chief of staff during the period of the Integrated Review and its military manifestation, the Defence Command Paper. On reflection now, does the UK have adequate resources, including money, equipment and people, to translate those ambitions set out in the document into effective policy? If not, where would you wish the Government to focus their attention?

General Sir Nick Carter: The straight answer to that is no, it does not, and that is because many of the assumptions that the Integrated Review and the Defence Command Paper were based upon have changed since they were published, not least the rate of inflation, which is gusting 10%. Members will know that defence inflation is invariably greater than normal inflation. The upshot of all that is that the financial assumptions on which the Defence Command Paper was based are probably somewhat challenged.

I am not over the detail, for obvious reasons, but that would be my guess, so in financial terms it would be fair to say that the very large sum of money that the Government gave defence in November 2019—some £24.1 billion—which was predicated on certain assumptions, does not look as good as it might have looked back in November 2019. Having said that, that settlement looked out over a four-year period, and that, of course, is of some advantage to defence. None the less, inflation will be challenging.

The other assumption that has fundamentally changed is that many of us who were involved in the process did predict—indeed, I predicted it in January 2018—that Russia was going to be a very acute threat and might well do the sorts of things that it has now done. Notwithstanding all that, what has happened is a very significant global shock, both in energy and, perhaps more importantly, in food. Those are two things that not even

the most prescient of people writing this document in 2019-20 would necessarily have predicted. If food carries on being as challenging as it is likely to be over the next six to nine months, I suspect we will discover that there will be quite violent disruption, rebellion and revolt in many of the countries that matter to us.

Without going into any more detail, it is fair to say that the assumptions have changed, and the basis of that means that we should be thinking pretty carefully about what that means for defence and the country as a whole.

The Chair: You highlight some of the issues that the House has been debating with regard to the changes in circumstances since the Integrated Review was published. Indeed, the House is shortly to have a Thursday debate trying to update issues of the Integrated Review. My colleagues will focus now on some of those points, so thank you for setting the scene.

Q48 Lord Stirrup: Good morning, and thanks for being here. The subtitle of this inquiry is “from aspiration to reality”, which really gets at the heart of what we are trying to analyse here. You will recognise better than anybody that an effective strategy has to marry effectively ends, ways and means. Last year’s Defence Command Paper set out a number of objectives and ends and indicated some of the ways in which they might be achieved, but one thing it did not do was weave them together with the means into what you and I might term an operational plan.

You quoted Anthony Cordesman in your speech at the IISS in March last year, who said that the US Department of Defense budget “doesn’t tie spending to strategy in meaningful ways, nor does it show how a given strategy can be tied to a given region, real plans budgets, schedules, costs, and measures of effectiveness”.

You and I might argue that tying spending to objectives is at the heart of the strategy in the first place, and that if you do not do that, you do not have a strategy. How well is that done in the UK in the case of the UK’s Defence Command Paper and the work that inevitably will have followed from that? With hindsight, is there anything that you would have changed or improved in that regard?

General Sir Nick Carter: Yes, I quoted Cordesman, and I quoted him because I wanted to encourage defence to try to do what Cordesman had alerted us to and that was not being done in the United States. I was trying to get some momentum behind the writing, for the first time in my career—indeed, in my time as CDS—of a defence strategy.

The Defence Command Paper was never designed to be a strategy. As you well know, it is more of a policy framework, in many ways quite aspirational in what it does, and it provides the defence pillar of the Integrated Review of foreign security, defence and development policy. The answer is that it was never designed to be a strategy.

When I look back on it, one of the things I was absolutely determined to achieve before I left as CDS on 30 November was the signing off of a defence strategy, and that is what has been written. It is a classified document and is secret. It seeks to align—to your words—ends, ways and means in order to provide adequate clarity, not least for the direction of travel for defence in its relationship with the broader piece of government, but also to the stakeholders who need to have some confidence about what they should be force-generating in order for defence to be able to execute its objectives.

I certainly found, in my time as CGS, as head of the Army, that that is what I was always scrabbling for. I wanted a defence strategy that I could plug my army aspirations into in order to be clear that the focus was right and the framework matched what defence was trying to achieve.

The defence strategy is something that I would commend to you. Whether it stands some of the tests or assumptions that we have just been talking about remains to be seen, but none the less it was a genuine attempt to try to align ends, ways and means and to get over the criticism that Cordesman had levelled at the US equivalent.

Lord Stirrup: That clearly is a document that, for the reasons you said, we cannot discuss in this forum in much detail, but could I ask you how well suited you think the structures and processes of the Ministry of Defence are to delivering such a strategy? I think, for example, in terms of the ability to be flexible about how and where you spend money, or the ability to say, "That is not right. We need to stop that and start something over here, and do it very quickly".

You have often spoken about doing things at the speed or the pace of relevance. That has traditionally been a problem in any large organisation, let alone an enterprise as large as defence. The way that defence is organised is, in many ways, extremely bureaucratic, as it has to be in a government department where Ministers are responsible to Parliament. Within those constraints, is there at the moment the responsiveness or the flexibility, both in processes and in finance, to be able to achieve such a strategy?

General Sir Nick Carter: It is a story in two parts. Covid demonstrated that one reason why the Government can always rely on the Ministry of Defence is that the Ministry of Defence is two things: a department of state on the one hand, and the headquarters of the Armed Forces on the other.

During Covid, you saw the headquarters of the Armed Forces stepping up to the plate and, in a very agile way, delivering what the Government required of it, whether it was Nightingale hospitals, the logistic processes, PPE acquisition or whatever else it might be. When we do that, which, in a sense, is our operational output, we can be very effective. The challenge always is how you bring operational agility into the department

of state and, to be frank, the necessary agility and adaptability is not there yet for the modern world.

Many people have had a go at this, not least Lord Levene, who you will recall, back in 2009 and 2010, wrote a very effective report on how the Ministry of Defence should be reformed in order to align responsibility, accountability and authority at more appropriate levels. The upshot of all that was that the single service chiefs became very empowered. They became empowered to run their 10-year programme, to work out what capabilities they should develop, and then to work out how they would resource those capabilities to deliver the effect that defence required of them. That was a very good step forward.

The challenge that we now have is how you align responsibility, accountability and authority at levels below them in a suitably empowered way, and how you align responsibility, accountability and authority in other parts of defence in order to make it possible for the single service chiefs to deliver what defence requires of them.

That is where you run into the conundrum that you touched on in your question, which is that you have this bureaucracy, which is very important, because we need to make sure that the expenditure is properly scrutinised. How do you apply proper scrutiny but also the fairness that comes with competing your requirements effectively with the necessary agility, which comes from an era of constant change, and rapid technological change in particular? That is an area where we are not in the right place at all.

How we move to a process, particularly an acquisition system, that makes it possible for the Armed Forces to have the stuff they need at the pace of relevance is a perennial challenge, and is becoming ever more challenging because of the increasing and exponential pace of change that we live with.

When you are dealing with software in particular—so much of the systems approach that we need to adopt to acquisition is fundamentally about having up-to-date software—you need open-system architectures, which can probably be delivered only if you have proper enterprise partnerships with industry. That then brings into question the relationships you have with industry, but my view is that, if we do not improve our relationships with industry and start to operate on the basis more of an enterprise, then, first, the UK will be the poorer for it, and, secondly, the Armed Forces will not have relevant technology in their hands to be able to deal with threats of tomorrow.

Q49 Lord Alton of Liverpool: General, good morning to you, and thank you for the reply you have just given to Lord Stirrup. Can we drill deeper into the remarks that you made to IISS back in March 2021? You said, “We can accept some risk in our current force structure in order to create headroom to invest in our future force structure, and indeed to utilise the significant uplift we’ve had in research and development funding to look properly to the future”. In the reply you have just given, you talked about

the importance of balance and of agility. How should we balance the trade-offs between the size of the Armed Forces and new technology? How should Russia's invasion of Ukraine or the military role in Covid, which you referred to a few minutes ago, shape our response? How does it assist us in working out whether 2% is enough, how much we spend and how we allocate that money in striking the balance that you have referred to?

General Sir Nick Carter: My first observation is that the role of the CDS, who, ultimately, is responsible for trying to ensure that defence acquires the right capability, will always be a judgment between taking risk today and tomorrow. It is that judgment that you have to exercise the wisdom of Solomon over with the other service chiefs. Sometimes you will get it right and sometimes, I am sure, you will get it wrong, but, essentially, it is about that judgment of balance between today and tomorrow.

My point about how rapidly technology is evolving is a vital one, because we are now moving from an era of industrial-age warfare, where it was about platforms, to an era where it is much more about systems. We have to be careful about learning too many early lessons from what is going on in Ukraine. There will be people who will be tempted to learn lessons about the future of the tank, for example, which we can elaborate on if we really want to. Equally, there will be people who, perhaps in a more sophisticated way, are beginning to learn lessons about how the Ukrainians are using Uber-based technologies to put very sophisticated artillery systems into the right place at the right time, without them getting knocked out by Russian systems, and using technology that is very sophisticated, bought off the open domain, to achieve their effect.

Some of that is not necessarily coming out very publicly in the open domain yet, so one has to be really careful about how one learns lessons and then applies them from what is going on, because they will not be obvious to everybody immediately. That is quite important to recognise.

The question implies that there will be a trade-off between size, in a way, and technology and capability. We will probably return to that in a moment, but there is a very delicate balance between mass and precision. There is always a temptation in defence circles to think that exquisite in technology will be better than mass. What we are seeing in Ukraine, notwithstanding what I have just said about lessons, probably suggests that mass remains relevant in all sorts of ways. Again, it will be about a balance with all these things.

When we consider mass, which I am sure we will do in a moment, some observations will need to be made about critical mass in relation to the size of our regular, and for that matter our reserve, Armed Forces.

We have to remember that the United States has demonstrated, at least three times in my career, how technology can give you an offset strategy. The offset strategy that most people would have noticed most was the one that we saw unfolding in 1990, when we took Kuwait back from

Saddam Hussein. What one saw there was the extraordinary bringing together of digital technologies, precision conventional strike, and all those remarkable images of targets being taken out that we could watch on our screens at home.

That proved to be a massive offset strategy, which enabled a force that was a lot smaller, in many ways, than Saddam Hussein's force to defeat an opponent that had greater mass. There are definitely occasions when you can see how an offset provided by technology can overcome some of the challenges of mass, but it will not always be the case, and one needs to be very clear that the offset will be a genuine one.

People are now scrabbling around for what will be the fourth offset, which I am sure will be based upon digital and data, and probably upon systems. Whether big platforms remain relevant in that environment is an interesting question, and those are questions that I am sure you are begging of others.

Lord Alton of Liverpool: Without trying to pre-empt colleagues who will specifically ask you about the size of the Army, nevertheless our colleague Admiral Lord West told the House during our Queen's Speech debate only last week that our Navy, Army and Air Force are too small. On the question of tanks, Lord Dannatt asked whether our 148 main battle tanks are sufficient.

I am also just interested to hear your reaction to what Jim Mattis, the US Defense Secretary, said four years ago, which was that Britain's "ability to continue to provide this critical military foundation for diplomatic success is at risk of erosion". Is that something with which you agree?

General Sir Nick Carter: It is definitely a risk. It goes back to the point I just made about critical mass. With all three services, and, for that matter, what we contribute in cyber and space, we have to be able to bring adequate combat power to bear within NATO that means that we get the appropriate respect.

We get a massive amount of respect at the moment in NATO for our thought leadership. I always found at the chiefs of defence meetings that we had in military committee session that people often picked up the words that I spoke, because they respected what we said in terms of thought leadership, but that respect comes with having hard power behind it. Jim Mattis is right to observe that you need to have adequate hard power to have that respect with your allies and with your potential opponents.

Q50 **Baroness Blackstone:** After the 2010 defence review, you led the team that reorganised the Army. It asked for a reduction to 82,000 troops at that time. I wonder whether you could tell the committee a bit about whether the UK now needs to reconsider the role and purpose of the Army in the light of its further reduction to 72,500.

General Sir Nick Carter: Yes, I did lead it and I was the architect of the Army that was designed at 82,000 regulars and 30,000 reservists. That second part is a very important point that I will come back to.

I mentioned, in answer to an earlier question, that when designing military capability, or for that matter the size of any of our services, you have to get the right balance between what we call the generated force—the one that goes to fight for you—and the generating force, which is all the institutional overhead: the recruiting system, the training system, the education system, the acquisition system, headquarters, supply and maintenance, the people who write your doctrine, and all that stuff. It is also about the people who the individual services give to the joint domain—to the permanent headquarters in Northwood, the Ministry of Defence or whatever else it might be.

It is very difficult to get below an irreducible level of that generating force. If you get to a position where the generating force cannot go any further, you end up taking the lean meat of the generated force. The 82,000 was very carefully constructed to get the right balance with the irreducible mass of the generating force in order to provide adequate red meat for the generated force.

It was the most significant change to the structure of the British Army since 1957. It was the first time we went back to first principles to redesign it. In redesigning it, we wired it very finely. Our judgment was that if you were going to take more out of it, you would have to go back to first principles and redesign it. Management consultants will tell you that if you cut by 5% or 10%, you can salami-slice, but if you cut by 20%, which is what the 82,000 represents, you have to go back to first principles.

The reduction in the size of the Army from 82,000 to 72,000 is nearly 20%, and that begs questions as to whether that structure is sound. The only way to de-risk it is to integrate the Reserve much more closely into it. Challenges come, of course, with the Reserve, because it will not be as well trained or as ready. History probably tells you—we saw this in 1914 and in 1940—that what normally happens is that the poor old regular outfit, in Army terms, gets malleted in the first few months of the war, and then you hope that you will get enough time to reconstitute, based upon your reserve and what is left of your regular force.

That is still the case today, I would have thought, but there is still that question about what the minimum critical mass of your generated force is. My view, as the architect of Army 2020, is that 82,000 was finely wired and that if you go below 82,000, it will be challenging.

You might reasonably ask me, “So why did you, as the CDS, sit over this reduction?” The answer, as I said in an answer to an earlier question, is that these are always judgments that you make about the balance of risk today versus risk tomorrow. Given the resources that were available to us, the judgment was made that we should take that risk, but it was not a risk that sat comfortably with me and many other people.

In the light of what Mr Putin has demonstrated over the last three months, it is perfectly reasonable for us to ask whether that figure needs to be revisited. If more money were to become available, there are a number of places you might spend it, but I would have thought that would be one of the places that you would look to make a choice as to whether that was the highest priority to spend that money.

I often paraphrase the first chairman of the US Joint Chiefs of Staff, Omar Bradley, who observed that American military power was only as strong as its weakest service. One of the things that we need to be conscious of at the moment is the extent to which our Army is strong enough to be able to deal with the challenges of today and tomorrow.

I have mentioned the Reserve a number of times. We must not lose sight of the Reserve, which will be very important to national resilience. We learned that through Covid. Indeed, the review that Lord Lancaster did on behalf of defence recently was a very good attempt at trying to put the reserve in the right place in the way we think about this.

It would be advisable for all of us to keep an eye on whether we invest in the Reserve adequately, because, ultimately, the Reserve will be something that we will have to fall back on if we were ever to fight the war that we might have to fight. You can use it in all sorts of ways, for national resilience but particularly as the fundamental resilience you need to prop up your regular force structure in the event of you having to fight that war that you might have to fight.

Baroness Blackstone: If, from your point of view, we look at this pessimistically, more money may not be available. In that case, what would you propose doing? Are there some functions that the Army currently performs that perhaps we should revisit and consider whether they should be done by somebody else?

You mentioned in your previous answer that we have to have adequate combat power within NATO. I am not quite sure what that means, but can I assume that if we are to perceive our future as very much being part of NATO, that has some influence and effect on what kind of people we need in the Army, not in reserve but amongst the active troops?

I just wonder also whether you have given any consideration to the sort of people who should be recruited and how they should be trained, and whether there are benefits from doing this in a somewhat different way than the way we do it at the moment.

General Sir Nick Carter: First and foremost, in answer to a previous question, I was talking about minimum critical mass and about what the minimum hard power capabilities are that each service needs to bring to NATO, so that we have that credibility with our allies.

In the case of the Air Force, it is probably the ability to mount an offensive in the first 24 hours of day/night capability and to be able to do that alongside particularly our American partners. In the Navy, it is the ability to provide leadership of the maritime taskforces that will be

necessary to be able to secure access in the Baltic Sea, the Black Sea, the Mediterranean or wherever else it might be. In the Army, it is the ability to bring a division of troops to bear within a NATO core organisation.

It is hard to put numbers on that, but it needs to be capable enough to have all the necessary combined arms systems that are required, whether that is armour, artillery, infantry, air defence or electronic warfare—all the panoply of things that are necessary for a modern army to be able to fight—which are normally contained at the divisional level.

That is the minimum acceptable standard that the Army needs in order to be able to contribute to NATO. With that come a whole load of deductions that you draw about what that means for the overall size of the Army. I am not sure that we need to go into the technical detail here, but it tells you that the Army probably has to be in the order of 80,000 to achieve that effect. It can certainly be backfilled by reserves, but, ultimately, that is probably where it needs to be.

To your question about whether there are functions that the Army should or could no longer perform, the answer is that so long as it can provide a division that can war-fight in a NATO context, it is providing what we should be delivering as a premier power within NATO. Depending upon what readiness assumptions you apply to the use of that division, soldiers can be used in other ways. They can be used to achieve effect in Africa, the Middle East or, for that matter, the Baltic region. You can deploy them in different ways, provided you are able to bring them back to fight as a division when it is necessary. There are multiple functions that can be performed by the Army.

It comes down to an analysis about what we think is the minimum acceptable level of our contribution of hard power to NATO. From that, we can then draw deductions about what the size and structure of our Armed Forces should be. That, traditionally, is the way that we have always planned it.

Q51 Lord Anderson of Swansea: The Defence Command Paper emphasised the challenges below the threshold of open warfare, such as the “use of non-lethal means to influence and secure objectives”. This necessarily involves delivery by a wide variety of agencies, which begs the question of whether the co-ordination, in your judgment, is adequate for that purpose. Secondly, should that balance—non-lethal, lethal, below the threshold, open warfare—now be questioned as a result of the real experience of warfare in in Ukraine?

General Sir Nick Carter: The Defence Command Paper was fundamentally based upon something called the integrated operating concept, which was published in September 2020 and which I wrote. The Integrated Operating Concept sought to do two or three big things. The first thing—the clue is in the title—was that it made the point that, given the way in which our autocratic opponents were now essentially using all the levers of statecraft below the threshold of war in order to achieve

their objectives, we also needed to be able to compete below the threshold of war to ensure that we did not allow them to be able to achieve their objectives below the threshold of war.

That, of course, means that the UK needs to be able to integrate all the levers of statecraft to achieve that, which means that our national security system needs, fundamentally, to be thinking about how it does that integration, which we might want to come back to. However, the Integrated Operating Concept also said that in order to be able to deter your opponents effectively, you none the less needed to have hard power and the evidence to be able to use it and to war-fight in order to keep that deterrence in the right place. It did not, in any way, exclude what we are now seeing the Russian regime doing in Ukraine.

More to the point, it emphasised that one needed to be conscious of that and, indeed, be in a position, were that to look like it might happen against a NATO ally, to war-fight in response to it, because, by doing that, that would mean you had the ability to deter it from happening. It recognised both that we needed to change in order to be better in competitive terms below the threshold, but also that we needed to be investing in capabilities to be able to war-fight above the threshold of war in a war-fighting context.

I think you used the term “the grey zone”. One has to be very careful about what one thinks the grey zone is about, because the implication is that it is all a slightly nefarious activity involving disinformation, misinformation and all the dark arts. Lots of deniable capabilities are being used; the Wagner Group is achieving Russian ends in DRC or wherever else it might be. The reality, of course, is that all of that is true, but there is also an awful lot of stuff that is happening openly. Competition means that you are also competing for the minds of your potential allies and partners. In military terms, that means that the ability to project power, which an aircraft carrier could do very admirably for you, or the ability to go to Kenya and train a Somalian battalion to go and secure Somalia, is really important, because we do not want the Chinese doing that on our behalf. These are equally as important as being able to counter disinformation and bring the legal and diplomatic instruments to bear to make sure that you win in international law or whatever it might be.

We are now in an era of constant competition and probably constant confrontation, where we no longer have a unipolar world but a multipolar one—I did not really answer the Baroness’s question about skills—where we genuinely need people who can play multidimensional chequers. It is something that none of us has done in our lifetimes. You have to go back to the 1940s to find the last time we played multidimensional chequers in terms of strategy. We need to be thinking like that.

Equally, we need to recognise that some of the skills that we need to do all this are definitely absent. They are absent in some of the specialisms that we need and in some of the broader training that is needed to get people to be able to think in that particular way.

My observation would be that one needs to get into the detail below what the Defence Command Paper was saying. One needs to get into the defence strategy and to understand that the Integrated Operating Concept was about trying to think of a way of putting defence, and government more broadly, in a position to exercise deterrence in a modern way against opponents who, very cleverly, have thought about how they can outmanoeuvre our conventional deterrence and are using all the instruments of statecraft in very nefarious ways to achieve their ends.

We cannot afford to be passive in this competition, and we need to recognise that they will do everything from disinformation through to what Putin is now doing in Ukraine.

Lord Anderson of Swansea: This constant competition above and below the threshold begs the question as to whether we as a country can maintain excellence across the whole spectrum. You touched on this in your lecture. What scope is there for burden sharing? For example, in the new carrier force, we concentrate on the carrier itself, but the escorts were all from other countries. What is the scope, in your judgment, for burden sharing and greater specialisation among our close allies?

General Sir Nick Carter: The answer is that we are very effective at integrating other armies, navies and air forces into our own Armed Forces; we do that well. The carrier group is a very good example of that, where there were many different nations involved at many different stages during that deployment to the Indo-Pacific, not least the US Marine Corps, all the way through. You see that in all our domains—land, air and maritime. That is fine, once you have agreed the military objectives that you are trying to achieve.

The challenge, which NATO wrestles with on a daily basis, is that you have to get political agreement so often to achieve the military objectives, so that you can work together. The big problem that NATO has and that we all have in western democracies is that our autocratic opponents are seeking to undermine our way of life and the freedoms that we espouse. Where we are challenged is that, in seeking to defend those freedoms, we risk undermining the very freedoms that we are seeking to protect.

It will always be difficult in western-style democracies to outmanoeuvre autocracies that really do not give a damn for those sorts of freedoms. When we need to integrate both internationally and interdepartmentally, these are challenging problems that have to be overcome, and I have a great deal of sympathy for those who are trying to do it, having been part of it. It is not easy to do.

NATO is, in many ways, as effective as it is as a defensive alliance because it is underpinned by Article 5—an attack on one is an attack on us all—but that, of course, implies an attack. What is going on now in the world is, “How do you define an attack?” We see this particularly in cyber, but you also see it in disinformation terms and in space, et cetera.

Understanding what that threshold looks like in relation to Article 5 is a big problem.

It is also a very big problem to get genuine political agreement for anything that happens below that threshold and to do it in a way that is adequately agile. That was one of the reasons why we created the Joint Expeditionary Force, which is a group of nations—the Nordic states, so it included Finland and Sweden even before they applied to join NATO, as well as Norway, Iceland, Denmark, the Dutch and the three Baltic states. The great advantage of that grouping is that it was able to do stuff below the threshold of Article 5. Indeed, we exercised it very regularly and thought about it. We had ministerial war games, where we had some great scenarios where a Russian destroyer was sunk by a Norwegian oil tanker off the coast of Denmark—“extrapolate”—and got Ministers into a position where they had to genuinely think about the consequences of all this sort of stuff.

It is groupings like that, of like-minded people who perhaps see it in that way, which in many ways I suspect may be an important ingredient in the future, because getting 30—hopefully, in due course, 32—nations to agree in an adequately agile way to deal with some of the challenges that we are talking about and that will happen below the threshold of Article 5 is a perennial problem.

Q52 Lord Wood of Anfield: Good morning. I wanted to ask you about the translation process of science into military and defence capability. The MoD trumpets its science capability. It did it last week, in fact, when the Chief of the Defence Staff visited DSTL. Are there problems in this translation process, other than problems that are endemic to all translation processes, from science to military defence capability? Are there problems that the UK and the MoD system has that, in your experience, are qualitatively different. What do they stem from if there are problems? Is it a cultural problem or is it about relations with the Treasury? What is your perspective on this?

General Sir Nick Carter: I have a number of thoughts. The challenge that we particularly have at the moment is working out what your big bets should be, because there are so many different technologies that might be relevant to the future of defence. Invariably, it will be a combination of technologies that will probably give you the offset that you need to be able to prevail. Making those choices will be a bet, and how you get behind the bet and do not allow other priorities to begin to influence the amount of resource you are putting behind the bet is a perennial problem for all institutions, not least for defence.

The second thing that is a problem is that you have to do this consistently and over a decent horizon in order to realise the opportunity. Much of the technology that we benefit from these days has come from defence technology in the Cold War. We were fortunate in the Cold War that it was easier. You had longer horizons and there was more consistency about it.

It is much harder now to make that big bet over a longer period of time, because people invariably change over quickly and there is a temptation to put your imprimatur on it, and perhaps to make your claim for what it might be. Nailing down what the big bet is and then genuinely getting behind it is the most important problem. I do not think any of us are particularly good at that; defence was not particularly good at that either.

The next problem, which I slightly answered when I answered Lord Stirrup's question, is how you do this in partnership with others. Defence science and technology is a very small ingredient of the science superpower that the Government believe this country is and should be. You have to avail yourself of the national enterprise in science and technology to really get behind a big bet. How that is organised in this country bears thought. Defence is a very small part of that and needs to avail itself of the opportunity that comes with a much broader piece of all this.

Those would be my judgments about it. We are very fortunate in defence with an excellent Chief Scientific Adviser now, who has some really good thinking on all of this and has a pretty good science strategy now, which is plugged in. The process is reasonably holistic. Inevitably, different stakeholders have different perspectives that need to be banged together from time to time, but in broad terms it is better than it was.

So much of this depends upon having confidence in the longer-term defence budget. The answer I gave at the beginning about defence inflation and inflation more broadly is a worry. If you wind the clock back a year and a half, when we were not so worried about inflation, we felt that we had pretty good confidence about what the defence programme would look like over a four-year and probably even a 10-year period, which meant you could be reasonably confident that the bets that you made in science and technology might be able to be seen through.

There are now some challenges on that, as I alluded to in my opening remarks, which we need to be leery of, because, ultimately, this requires longer-term horizons. It also requires agility, because things will change quite quickly.

Lord Wood of Anfield: Just coming back to the first part of what you said, I do not want to misinterpret you, but were you suggesting that in the past there has been a problem of the science community in relation to defence being siloed compared to the broader science community in the country, and that that problem is getting better? Is that what you were saying, or did I misunderstand that?

General Sir Nick Carter: I am not commenting either way. I am just saying that, for it to be effective in the modern world, it is vital that defence science is part of the broader national science, because no longer is defence able to do this on its own, as it probably did so often in the Cold War.

Lord Wood of Anfield: In your experience, are we now better placed or

similarly placed to other countries in that respect?

General Sir Nick Carter: We are probably better placed. We also, interestingly, have the advantage that the chief NATO scientist at the moment is a Brit, which is a good place for us to be. We need to be continuously asking ourselves whether we are doing this in a way that is integrated nationally within and outside government, but also integrated with our closer allies.

Q53 **Lord Campbell of Pittenweem:** Just as a comment, NATO finds its activity restricted from time to time because of caveats, which are, essentially, the product of political decisions. I think in particular of the difficulties in Afghanistan. General Richards found caveats quite often being to his disadvantage.

Just leaving that on one side, the one thing you have not mentioned is nuclear. We know that there has at least been a threat of nuclear war-fighting. How far does the application of principles that you have discussed this morning embrace that possibility that we could find ourselves with a serious threat? For example, we know that there are nuclear-capable missiles now in Kaliningrad. Indeed, there were some reports suggesting that nuclear warheads had been delivered to Kaliningrad as well. That is an issue that has emerged out of Ukraine. How far do we have to take that into account?

General Sir Nick Carter: It is fundamental, once again, not least because, of course, Russia's nuclear doctrine is different to ours, as is its capability.

First and foremost, it published a new doctrine at the beginning of last year called "launch on warning", which is worrying. Secondly, it is well advanced in its missile technology, and it is very challenging to tell the difference between conventionally armed and nuclear armed missiles. That is a factor.

The third factor in relation to Russia is that its doctrine does allow for tactical use of nuclear weapons, which it would regard as not being that much of an escalation above conventional weaponry. That is, of course, a worrying way of thinking about nuclear weapons, because, in NATO, we very clearly delineate between conventional and nuclear capability, regardless of the size of the nuclear weapon.

The next observation I would make is that, if you wound the clock back 35 years, you and I would be talking about this every day, and I do not think that we talk about nuclear as much as we should do. There is no longer the academic debate that would have gone on with people like Michael Howard and co back in the day. Having a debate about nuclear is ever more important.

I would bet you that, if nothing else, countries like Iran and North Korea are noticing that the nuclear rhetoric that is going on at the moment is really rather useful. My judgment is that this will probably lead to greater rather than fewer aspirations from countries for nuclear proliferation, and

that should worry us as well. This needs to be raised up the agenda more than perhaps has been the case. We should be thinking hard about how we wargame it, as military and officials but also, more importantly, as Ministers. Thinking through the implications of the use of a low-yield nuclear weapon in Ukraine and what our response to that should be would clearly be exercising people, because the big challenge in the modern world, amongst others, is how you manage escalation.

The challenge we have is that, when you are talking along the lines that we are now talking, Russia has an advantage in escalation management. The risk of all this is that you end up with an unwarranted miscalculation. There are some really important issues that this is bringing out, which I am sure are being discussed at the heart of government at the moment.

Lord Campbell of Pittenweem: This is Cold War language, is it not—"launch on warning"? We will be back to flexible response if we are not careful.

General Sir Nick Carter: Yes, it could be. You know as well as I do that the diplomatic instruments and systems that managed arms control—and, for that matter, the confidence-building measures—do not exist any longer in terms of the extent to which you could pick up the phone and tell Mr Gerasimov that you are not doing anything. These are harder to do now. We do not understand each other like we used to. The days of SOXMIS and BRIXMIS—those two missions that used to work on either side of the inner German border—do not exist any longer. How you manage confidence building and the diplomatic mechanisms necessary to do all of this, in a world that will have more nuclear-armed countries rather than less, is something that should be worrying all of us.

Q54 **Baroness Sugg:** We touched briefly on the Indo-Pacific. Going back to Baroness Blackstone's comments on the need for prioritisation, we saw the Integrated Review have a broad set of ambitions, but not all can be achieved, necessarily, given the current resources that the military has. Given the events in Ukraine, is this pivot to the Indo-Pacific looking a bit overambitious, or is it still a strategy worth pursuing?

General Sir Nick Carter: First, I will pick up on "strategy", because I do not think it is a strategy as such. I will come back to that if necessary. When one reads the Integrated Review, one needs to be clear that it is absolutely consistent in saying that our security is assured through Europe and through NATO.

In tilting towards the Indo-Pacific, people are being realistic about what that means. On a routine basis, we are talking about two operational patrol vessels being stationed in the Pacific. We are talking about exercising there a bit more frequently. We are not talking about adjusting, in any great numbers, our effort to the Indo-Pacific. I do not think that we are talking about, for example, sending a carrier group there every year. My guess is that we are probably talking about sending it every three or four years, and I do not think that the next date has yet been nailed down. It is all relative.

Having said that, if we were all sitting here, regardless of what might have happened in Ukraine, and we had not talked about tilting towards the Indo-Pacific, you would all be saying, "Hang on a minute. Is this not the Asian century? Surely we should be taking a bit of account of what is going on in the Indo-Pacific and Asia in particular". The answer is that, in terms of our national prosperity, if we are not oriented to some degree in that direction, I suspect that we will be the losers in all this, so there has to be some effort that goes that way.

The trick with all these things, which comes back to the question about strategy, is making sure that the ends, ways and means, as Lord Stirrup rightly put it at the beginning, are in balance in order to be able to achieve the effect.

Q55 **Baroness Fall:** I wanted to turn to the Russian people. You mentioned in your interview with the *FT* that you thought that it was important that we kept our lines open to them, however difficult. Having lived there as a child, there was always, in my view, a line with regard to encouraging Russians in their desire to buy blue jeans, for example, which was part of what won the Cold War in the end. How do we stop generations of Russians loathing the West and entrenching this bad situation down?

General Sir Nick Carter: It is important to distinguish between the Russian regime—and, for that matter, Mr Putin—and the Russian people. Our "fight" is not with the Russian people. The difficulty that we have with all this, of course, is that Putin has brought down a digital Iron Curtain, which makes it phenomenally difficult for anybody to reach out to provincial Russia.

We are all hearing about the trendies in Moscow and St Petersburg perhaps having some sympathy with our perspective on all this, but they are only the trendies. It is the people in provincial Russia, as you probably know better than I, who we need to be in touch with and to persuade that the regime is not for them.

That is very difficult to do, because, of course, Russians fundamentally believe in Russia being a great power and, therefore, they respect strong leadership and like leaders who give the impression that their country is a great power and are pushing that down other people's throats. It is difficult to do. There are, though, indications, such as the fact that we have seen two relatively senior officers as commentators now on state television coming out and questioning the special military operation.

First and foremost, my judgment would be that those two individuals did that only because they have very high-level support. They would not do it on their own. The high-level support wants Mr Putin to be messaged, because they are unable to message him from within the inner circle. It is a sophisticated information operation to try to get after him.

The other ghastly hope that we might have is that the casualty rate keeps going up and that families—mothers and dads in particular—in Russia begin to notice that people are not coming home. That, of course,

was a feature of what happened in the late 1980s in Afghanistan and undermined the Soviet occupation. Sadly, we have to hope that that carries on, which is a ghastly thing to hope for, but that may make it resonate more at home.

We also have to work out, in information operation terms, how we can genuinely isolate Mr Putin internationally. We are deluding ourselves if we think that he is not working very hard on the global south. They are. They are not bothering with us, for obvious reasons. Only if you do that will you then be able to make the sanctions stick.

The fact that he has exported more fossil fuels in the last month than at any time in recent history is truly remarkable, as is the fact that the rouble is now back at what it was before the war started. These are all worrying indicators that we are perhaps believing our own PR and that we need to be thinking in a more sophisticated way about how we get our narrative to the appropriate places.

Q56 Lord Boateng: Thank you for your service, General. You mentioned Peter Levene and his review. Interestingly enough, in the second chapter of the review, if you recall, he outlines a number of areas where he thinks that the MoD is doing well. One of those is overseas operations and our model for overseas operations. You mentioned the Wagner Group. The Secretary of State for Foreign Affairs mentioned Wagner yesterday in a meeting that Baroness Sugg and I were at. Russia is using it in its global game plan. What does that tell us that we need to do, and what are its implications for our defence concepts and capabilities?

General Sir Nick Carter: Funnily enough, one of the design principles for Army 2020, the reforms that we did in 2011, came to me from—I am going to use the words advisedly—bitter experience of my long exposure in Afghanistan and, to a degree, Iraq. In both those theatres of operation it took us a long time to develop adequate insight and understanding of local culture and politics in order to be able to make an impact.

I felt that, in the design of the new Army, we should be thinking about how that Army could be employed overseas to be able to compete with organisations such as Wagner and, in so doing, develop the necessary culture, insight and understanding that would be appropriate, if you were going to work with indigenous partners to be able to help them stabilise their countries and become prosperous.

Thinking about upstream capacity building that helps African battalions be better contributors to UN operations in the Sahel or wherever it might be is something that is important for them but also for the narrative that we might wish to push into the world, which is different to that of our autocratic rivals such as China and Russia.

Lord Boateng: Is that part of what we are doing in Mali?

General Sir Nick Carter: That is an interesting question. Yes, up to a point. We need to be really clear that our small battle group in Mali is not

going to change the stability of Mali overnight, but it might do two or three other rather more strategic things.

First of all, it will give us a greater voice in peacekeeping circles in the UN, because we are contributing real capability to a very difficult UN operation. That gives us leverage in UN circles and shows us stepping up to the plate as a P5 nation to do just that.

Secondly, it gives us the ability to showcase our capability to other UN contributing nations like the Ghanaians, who then are more likely to want to be trained and developed by us. That is contributing to the broader set of UN objectives, but also getting our word out that what we stand for, and our thought, training and education leadership, is really rather better than what you will get from Russia or China.

I would call it more strategic. It will not have a massive tactical effect, for reasons that we all understand in terms of the ghastliness that is the Sahel at the moment, but by contributing in that way, we can have an effect at the strategic level, which is something that we should not underestimate.

Baroness Rawlings: I would like to return to your answer to earlier questions regarding technology and events “below the threshold of Article 5”. How would a cyberattack be covered by NATO’s Article 5? If we had a major attack, God forbid, in the UK, for example, would that mean that other NATO countries would come to our rescue or retaliate? How easy is it to know from where and from whom the attack comes?

General Sir Nick Carter: Jeremy Fleming has been saying that one of the things that is interesting about Ukraine is the extent to which the cyber dog has not barked as loudly as you might imagine. It has certainly barked within Ukraine, where both sides are availing themselves of the technology.

Baroness Rawlings: And Bulgaria.

General Sir Nick Carter: The bottom line is that it is possible to tell the difference between a state-based attack and a non-state-based attack—in other words, by some sort of substate franchise like we see in Russia, in St Petersburg, for example. That is because, generally, the level of sophistication of the attack is traceable back to state level.

I do not know, but my supposition is that the state parties in all this are apprehensive about what effect an impact of a state-based attack might have on the opponent, and whether it might bring on an Article 5-type response, because I do not think that anybody has been there yet. When you come down to escalation management, it is one of those very challenging questions.

On the direct bit of your question, it surely must be about the impact of it. Arguably, when Russia went after the Skripal family in 2018, that breached Article 5. We did not call for it as a country, because we did not feel the need, but arguably it did breach Article 5. There is a debate to be

had about the impact in relation to a cyberattack and, if it leads to loss of human life, that might well be slightly different to if it leads to the temporary closure of the City of London for a couple of days.

It is about impact, and mercifully we have not had to make judgments based upon state-based attacks and their impact just yet. Again, rather like the question from Lord Campbell about the business of nuclear, it is one of those things that one would hope people are wargaming and thinking through the impact and the consequences, so that we are not caught out in the event of it happening.

The Chair: Sir Nick, thank you very much indeed for your evidence this morning. We appreciate that it is against the background of this venue, because we are not high security clearance and we are broadcast publicly, which means that we could not drill down into the very detail of the defence strategy to which you referred in your first response. Thank for giving as much detail as is humanly possible in this time and venue.

In answer to Lord Boateng, you referred particularly to the role of the UK in peacekeeping. Tomorrow is International Day of UN Peacekeepers, and I have been reflecting very carefully on that as the incoming chair of UNA UK. I take over from my absolutely redoubtable and excellent colleague over there, although he may not be from my party, Lord Wood, against the background that both Russia and Ukraine serve within UN peacekeepers. Let us hope that, one day, we can go beyond the grim reality of the brutal attack by Russia on Ukraine and see some form of peace, however we define it. Thank you very much indeed.