House of Commons

Scottish Affairs Committee

Oral evidence: Defence in Scotland: the North Atlantic and the High North, HC 81

Monday 6 March 2023

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Watch the meeting

Members present: Pete Wishart (Chair); Deirdre Brock; Wendy Chamberlain; David Duguid; Sally-Ann Hart; Christine Jardine; Douglas Ross; Andrew Western.

Questions 1 - 62

Witnesses

I: Dr Rowan Allport, Deputy Director, Human Security Centre; Dr Marc DeVore, Senior Lecturer, School of International Relations, University of St Andrews; Dr Duncan Depledge, Lecturer in Geopolitics and Security, Loughborough University.

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Examination of Witnesses

Witnesses: Dr Rowan Allport, Dr Marc DeVore and Dr Duncan Depledge.

Q1 **Chair:** Welcome to the Scottish Affairs Committee for our first evidence session in our new inquiry on "Defence in Scotland: the North Atlantic and the High North". We have some experts to help us kick this session off, who will now introduce themselves and tell us who they represent.

Dr Allport: My name is Rowan Allport. I am a deputy director with the Human Security Centre. We are a London-based foreign policy think-tank. My main area of focus is interstate conflict, and that has, in the past, included the history of NATO's management of its northern flank.

Dr DeVore: I am Marc DeVore. I am a senior lecturer at the University of St Andrews, specialising in security and defence issues. It is great to see a lot of familiar faces in here. I am also, at the moment, a British Academy fellow advising FCDO, but everything I say here is going to be as an academic and represents only my own judgments and nothing beyond that.

Chair: Thank you for that. The whole Committee want to thank you for very kindly hosting us at St Andrews. We all found that a very helpful and useful conversation, so thanks for that.

Dr Depledge: My name is Duncan Depledge. I am a lecturer in geopolitics and security at Loughborough University. My main area of focus has been on the changing geopolitics of the Arctic, and particularly what it means to the UK in the 21st century. This is something on which I have been working on and off for the past five to 10 years.

Q2 **Chair:** You seem to be exactly the right gentlemen we need to kick off this inquiry. It seems that the terms "high north" and "north Atlantic" are inconsistently applied, and that there are different interpretations as to exactly what they are. What are they?

Dr Depledge: First of all, it is important to acknowledge that we tend to think that there are multiple Arctic regions rather than there just being one single homogeneous space. We might think about a European Arctic, a Russian Arctic and a North American Arctic. The European Arctic is the one that is most commonly referred to as "the high north", because this comes from a Norwegian term. For the British and for NATO, "the high north" has become the term of choice, because there is a degree of vagueness and elasticity to it that allows you to talk about things in the Arctic without necessarily provoking Arctic states into thinking that you are somehow making yourself felt in their space.

I would also suggest, from my own work and that of some colleagues, that we might now need to also think more about a wider north, which really tries to encapsulate the fact that the north Atlantic, the high north and the Baltic region are very much interrelated spaces now. We would probably be better off thinking about all three together as a wider north

rather than just focusing exclusively on a high north or a north Atlantic.

Q3 **Chair:** I have a map in front of me, Dr DeVore, and there are three different outlines of what the high north is. Which one is right?

Dr DeVore: I agree 100% with what Duncan just said. The term "high north" provides a degree of flexibility that gets around a lot of the previous academic debates about what the Arctic is. Does the Arctic begin with the permafrost? Does it begin with the end of the tree line? What exactly defines the Arctic?

As Duncan said, from a security point of view, the strategic importance of the Arctic dips well beneath where the Arctic circle ends and, from that point of view, "high north" is a very useful term for thinking about a security complex of the territory in the Arctic as well as the territory south of the Arctic that is indissociable from it.

Q4 **Chair:** Are the UK and Scotland part of the high north?

Dr Allport: Again, it is a very vaguely defined term. It melds into the north Atlantic itself. It depends on where the ice floes stop. As my colleague said, it is helpfully vague, but it also covers up the failures of just using the phrase "Arctic" in terms of the Arctic circle. Only a small sliver of Iceland is within the Arctic circle, but no one would argue that it is not a state in the high north, so it is useful in that respect.

Q5 **Chair:** We have got off to a very good start then, but we are no further forward in defining what the high north is. Maybe the next question will help us a little more. What are the UK's strategic priorities in the north Atlantic and the north region? What are the main priorities that we have for this region?

Dr DeVore: The priorities of stability and playing a large role in guaranteeing that stability are a constant. However, the geopolitical landscape has been changing remarkably this year, so we are probably entering a period of increased tensions and greater potential conflictuality in the high north, for a variety of reasons.

There are probably about three reasons that we can anticipate are going to lead to substantial tensions with Russia over time in the high north. The first is that, up until present, Russia has been balancing its need to co-operate with the West and other advanced industrial democracies for the technologies needed to exploit its resources in the high north against its desire to push territorial claims that are in contradiction to the foreign policies of us and allies. From that point of view, now that we have cut Russia off from the technological assistance that was the major reason for Russian co-operation, there is little left holding it back from pushing more heavily on its territorial claims.

Secondly, however this war in Ukraine goes, it is exacerbating Russian nationalism. A defeated Russia is likely to be more assertive in the high north as a way of demonstrating again that it is a great power. A successful Russia is likely also to be more assertive in the high north,

because it will view itself as re-empowered as a great power, but, in either case, a more nationalistic post-Ukraine Russia is likely to push us more in the high north.

Q6 **Chair:** Is that your view, Dr Depledge? Does the UK have the right set of priorities and approaches to its relationship with the high north, given what we have heard from Dr DeVore about Russian interests in the area?

Dr Depledge: I think so, broadly. What is really interesting is that, if you take a more historical perspective on this and look back 10 to 15 years at where the UK was in relation to this, you would say that there was an awful lot more that the UK had to do. This was before the UK had even published its first Arctic policy framework back in 2013. We have now just had its third iteration, so we can see that this has certainly moved up the agenda. The Ministry of Defence published its own Arctic document last year as well. In that sense, we are starting to see more priority and attention being given to the region.

The interest has also been fluid. Primarily, we could probably box UK interests in the region into three buckets. One is about scientific co-operation, which cuts across with climate change but also with environmental issues. The second is commercial. There was a particular interest, 10 to 15 years ago, in Russian oil and gas and what that could do. The third aspect is defence.

The commercial piece is the one that has started to fall away. If you read the latest UK Arctic policy framework and compare it to the earlier iterations, there is far less discussion of oil and gas, and that is partly down to trying to reduce dependence on Russian oil and gas, I would imagine. Science and defence are where the UK can really contribute the most at the moment. Particularly around science and defence is where the UK can invest the most and has the most control.

When it comes to the commercial aspects, the Government can support, they can advise, they can suggest and they can facilitate commercial activity, but, because, ultimately, those decisions come down to private operators, it is not really up to the Government whether we develop that.

Q7 **Chair:** Dr Allport, are we getting this balance right? Are defence and security concerns and issues being given the right type of emphasis in the UK's engagement with the high north?

Dr Allport: I think so. This inquiry does itself credit by bringing the high north and the north Atlantic together, because you have a situation where a lot of the threats to the north Atlantic and interests there, in general and for the UK specifically, are based in or emanate from the high north, so it is important to bring those there.

Looking at defence specifically, a key issue is homeland defence. That includes underwater infrastructure, cables, pipelines and things like that. Then we have defence of our NATO allies, current and, hopefully, soon to be Finland and Sweden.

There is also keeping the sea lines of communication open, particularly in the north Atlantic. If NATO wants to do anything significant in Europe, if it ever needed to, it would be dependent on US reinforcements coming in by sea. Even now, you are seeing a lot of the equipment that the US is donating to Ukraine come in by sea.

Then, of course, there is sustaining the continuous at sea deterrent that is primarily based in and patrols around the north Atlantic. When it is deployed from the Clyde, the area needs sterilising by Royal Navy and RAF assets prior to that.

As my colleague mentioned, there are then the wider economic, diplomatic and rule-based international order issues. Today we are probably going to address the UN convention of the sea and various navigation rights around the Arctic. Those are the main priority areas.

Q8 **Chair:** I was going to make that my last question, but you have just irked me into one more. Have we have ignored some of the interests and issues around the high north? Are we in a situation where we are trying to catch up now, because we have maybe not had it as any sort of priority or agenda item?

Dr Allport: That is a half-valid criticism. The Joint Expeditionary Force, since it was formed, has proved to be of great value, so that proves that we have not been neglecting that issue, with the focus on Afghanistan and then eastern Europe in more recent years. The centre of gravity of NATO will, unavoidably, move north when Finland and Sweden join us, so the basis is there to build on it, but we are not there yet.

Q9 **Andrew Western:** I have a couple of questions coming out of that initially. One would be around current Government thinking in the high north and whether it is long term enough. We read a lot about the potential implications as ice caps melt, etc. in terms of the availability of resources. Is there sufficient planning for a changing role for us in defence terms?

There is then another question that links to the RAND paper on UK Government thinking in the high north around the fact that, understandably, overall responsibility for this sits with the Foreign Office. To what extent should there be a greater role for the MoD or, indeed, an overall role for the MoD, given the shifting geopolitics in the region?

Dr DeVore: British policy towards the far north has not necessarily been too short term, but, fundamentally, the politics in the high north have changed, with Swedish and Finnish accession to NATO and with Russia appearing to be a far more revisionist power. Up until last year or about 14 months ago, I was very hopeful that the Arctic could remain this exception and zone of peace and co-operation in otherwise tense relations between western Europe and Russia.

I would say that the ship has sailed on that and the overall climate of confrontation with Russia has now nestled in the high north. I do not

think that policy before was neglecting long-term ramifications, but we need to take long-term choices today, if we want to be competitive in the high north.

The UK does not have any icebreakers in service. I do not know whether icebreakers are necessary, but it should be a policy discussion. Since the cold war, the UK has not built—and this is the same for the United States—any ships that are ice-hardened.

There are a lot of choices relating to investments. The ports and the infrastructure that we would be using to project power in the high north would also need to be redeveloped. There are a lot of long-term strategic investments and decisions that we need to look at now, considering these changed geopolitical circumstances, and carefully weigh for how we are going to respond.

Dr Depledge: My colleague has laid that out very nicely in highlighting what has happened in the short term. Longer term, Britain had developed a fairly balanced and comfortable position, which it was prepared to maintain going forward for the foreseeable future. That was very much about respecting the primacy of the eight Arctic states and the idea of a circumpolar consensus that decisions in the Arctic would be taken by consensus by the eight Arctic states, and the UK would be there more in a supporting role and more from a wait-and-see standpoint.

The kinds of changes that were just mentioned have suddenly created a huge amount of uncertainty about the region, and it is really up to the UK to ask itself whether it is going to step into that now and be a part of those discussions, which are going to be about the future of the Arctic.

If the Arctic Council, whose activities, you will know, have been paused, although there is some limited activity going on, does not recover, what does the future hold for governance in the region? Is it going to be an A7 bloc—a group of Arctic states without Russia—or is there going to be scope for non-Arctic allies like the UK to play an even greater role? The UK has to be prepared to step into that now and, ultimately, do more.

On the question raised by the RAND report, we have been going around on this for at least the past 10 years as to whether there should be a special envoy, an ambassador or something to try to bring together and better co-ordinate UK Arctic policy. Not to do any disservice to the work of the Polar Regions Department, but it is flagging the fact that that department has to also look at Antarctica. In that discussion, it is fair to say that, because there is a sovereign interest in Antarctica, that is probably always going to take priority and most of the resource.

The question is whether there is scope for a figure or a body outside of that Polar Regions Department that can act as a focus point, bringing together all of the different issues from the UK and Scotland, act as a convening power and add weight to UK interests in the region.

Q10 **Wendy Chamberlain:** Thanks, witnesses, for being here today. Apologies, but I will need to leave during the session because I have a

PhD student from St Andrews to go and see in Portcullis House.

We have touched already on Russia's invasion of Ukraine and what impact it is having on the defence and security situation. It was very interesting, Dr DeVore, that you said that it was the last 14 months, thinking again. Was there no change in assessment post the annexation of Crimea? That was the point where the view of Russia internationally started to change.

Dr DeVore: The situation in the high north has been becoming increasingly conflictual with Russia since 2008. There was the flag planting in 2007. In 2008, Russia started a series of measures of a military build-up. In 2011, they created an Arctic brigade and started designing their new class of armed icebreakers. From 2013 to 2017, they built a lot of new facilities. After 2014, Russian rhetoric and actions became more strident in the area, and major western oil companies started pulling back from joint ventures.

Until February 2022, there was still the hope, cherished by many, including me, that Russia, while being more assertive, was not as revisionist and that it would operate within a certain framework up in the high north. Things were becoming more tense, but there was still enough reason to hope that the Arctic Council and that constructive engagement with Russia might be able to keep the conflict and the tensions from having repercussions up in the high north.

Since February 2022, that is, essentially, no longer the case, particularly with Finland and Sweden joining NATO and with the new Duma laws on the north-east sea route.

Q11 **Wendy Chamberlain:** So there is still that tension there. Dr Allport, does Russia's invasion have implications for how Russia will apply its bastion defence strategy? Is there evidence that they are changing their approach?

Dr Allport: They now have additional concerns in terms of the Finnish border. Previously, it was the case that it would be the US or Norway that had to be within the bastion strategy. Now they have a hugely extended land frontline that they have to manage. Finland is buying a fleet of F-35s that should be able to do a reasonably good job of penetrating their defences, so they will have that to concern themselves with as well.

In terms of the bastion defence strategy and their overall strategy in the north, their position is considerably weakened. It was always generally understood that Finland and Sweden were western-aligned, but, now that they are within the formal NATO structure, they will be able to co-operate. This goes for the Baltic states as well. You will, in a few years, have a fairly advanced air force within a very short range of Estonia, and that will make any Russian move on the ground into Estonia quite difficult. That does not solve a problem, but it relieves one of NATO's issues in terms of forward deployed forces.

Q12 **Wendy Chamberlain:** Dr Depledge, we have already mentioned Finland,

Sweden and NATO, but, from what Dr Allport said there, it sounds like what Russia is doing is spreading itself thinner and thinner. What are the immediate implications if Finland and Sweden are admitted to NATO, which certainly seems to be the very clear direction of travel?

Dr Depledge: The implications for NATO and for the Nordic countries are that it is going to probably demand a fundamental rethink of an awful lot of the defence assumptions that they had. As my colleague just mentioned, while there was a tacit sense that Sweden and Finland were not entirely outside of the alliance structures, by bringing them in, there is now a commitment to defend them, and that has to be factored into NATO planning, essentially.

It has also created opportunities for Norway, Sweden and Finland to strengthen their defence co-operation as a grouping within that, and there are opportunities for JEF. All of these different things were previously divided: "How do you bring together non-NATO and NATO allies?" Now that they are together, there is an opportunity, but it is also going to require a lot of work to figure out how that looks in practice. The Norwegians have said that they need to completely rethink their plans now.

Q13 **Wendy Chamberlain:** On rethinking, what does the UK need to be thinking about from its defence strategy perspective, given where we are now?

Dr Allport: It does not need to be necessarily in as much public detail as it was during the cold war. During the cold war, you had the British Army of the Rhine on the central front of Europe. You had 3 Commando Brigade going to Norway, and British elements of the Allied Command Europe Mobile Force going either to Norway or to Turkey. It does not need to be quite that explicit, but you do need a better considered approach to the north than you have now. What we have now is, "We will do bits and pieces occasionally."

There is an underlying strategy in terms of training cold weather formations, but there needs to be something a little more fundamental in terms of, "We are willing to commit this to this, to this and to this in this contingency." There needs to be a more formalised and more transparent approach, and that will be difficult, given that so many of the assets that will be required are double, triple or quadruple-hatted in terms of the various tasks that they will have, not only in NATO but around the world.

Q14 **Wendy Chamberlain:** There are still lots of calls on our existing equipment and personnel.

Dr Allport: There are lots of calls. One of the issues is that a problem will quite often spread to the Arctic rather than start there. For example, it is a case of, "The forces have gone to eastern Europe. What is left for the north?"

Wendy Chamberlain: That is a challenge for Russia as well.

Dr DeVore: I definitely agree with everything that my colleague said. It strikes me that there are both challenges and opportunities for the UK in the current situation in the high north.

The challenge is that, as my colleague said, the UK fundamentally needs to rethink strategy in the north. Once Finland joins NATO, the longest border between NATO and Russia is going to be in the high north. While this theoretically improves NATO's strategic position, it also creates significant security dilemmas, because, all of a sudden, NATO forces, including Sweden's excellent air force and Finland's very well-trained mass mobilisation army, are going to be very close to key Russian strategic targets such as St Petersburg, Murmansk and Archangel.

I would imagine that, all things being equal, this is going to produce a degree of arms racing up along that frontier, and that is something that the UK needs to be concerned about, but it also provides certain opportunities. Almost certainly, once Finland and Sweden join NATO, NATO is going to create some form of high north command structure that may embrace the Baltic. It may be more specifically high north. The discussions are ongoing.

The UK could easily position itself as the leader and perhaps hold the headquarters of the naval component of that, but doing so would require clear investments and a clear bid to take that leadership. I see it as a case of challenges that the UK's defence forces need to consider, but it is also an opportunity to assert UK leadership in an increasingly strategic zone.

Wendy Chamberlain: And not get into a position where we overpromise.

Q15 **Christine Jardine:** You have covered most of what I was going to say, but it strikes me that, every time we speak about Finland joining NATO, we are replicating almost exactly the situation that we have in eastern Europe, further south, with Ukraine. Have western allies and NATO, either deliberately or just through not thinking about it, overlooked the strategic importance of Finland to Russia for decades, right back to the First World War? Finland is, historically, part of Mother Russia, and perhaps it is only now that the strategic importance of Finland is becoming recognised. We have been very slow to get off the mark and we have a lot of catching up to do.

Dr Depledge: I was trying to pick out the question.

Christine Jardine: Have we been slow off the mark with Finland? Have we overlooked the importance of the high north Atlantic, particularly Finland, and do we have an awful lot of catching up to do?

Dr Depledge: I am not so sure. This goes back to an earlier question about whether Ukraine was the turning point for all of this. Already, probably since 2018 or 2019, we have started to see closer UK engagement, not just with Norway, which, historically, has always been the case, but with both Sweden and Finland in training and exercising.

Not to labour the point about the wider north, but Sweden and Finland are particularly interesting in that construct, because they look both ways, essentially. They are high north and they are Baltic, and that is what brings together the Nordics and the Baltics.

Precisely because of that, with JEF being set up and with the British presence in Estonia, there is already an understanding that whatever was going to happen in Estonia was going to be greatly shaped by events in the Baltic, and that brought Sweden and Finland in. If you had asked that question six or seven years ago, then maybe, but it was increasingly already starting to change.

Christine Jardine: So we were aware of the issue.

Q16 **David Duguid:** Thank you to all our witnesses. It is good to see Dr DeVore again. I am going to follow on from the discussion that we had in St Andrews a little bit later. I wanted to come in on the Finland and Sweden aspect of things and maybe broaden out the question to the overall NATO approach. As NATO expands—and maybe we should be careful about using that language—into the Arctic region, particularly with Sweden and Finland, do NATO armed forces have sufficient capacity to face the high north and Arctic region, or does the inclusion of Finland and Sweden bring that capability into NATO and balance it out?

Dr DeVore: Today, the inclusion of Finland and Sweden balances out the ledger, and probably even does more than that if one considers the amount of Russian military assets that have been pulled into the fight in Ukraine. NATO has not particularly invested in the technology or training needed to operate in the high north. There are some exceptions. The commando force has been active continually in Norway and does great jobs up there. The French did an interesting freedom of navigation exercise across the northern sea route in 2018, but overall it has been a somewhat neglected area for NATO.

The Nordic states have specialised in defending their backyard, and Finland certainly has maintained a large conscript mass mobilisation reserve system. At the moment, they are perfectly capable of defending themselves. The challenge is going to be that, five or 10 years down the line, as this becomes the new frontier between NATO and Russia, if Russia succeeds in reconstituting and recapitalising its military forces, a larger percentage of those are likely to be on the NATO-Russia boundary, which is now going to be in the high north. We are fine now, but we probably want both ourselves and other NATO allies to dedicate and specialise a large proportion of our forces for operations and collaboration in the high north.

Q17 **David Duguid:** You mentioned the potential establishment of a dedicated Arctic/high north command. What specific actions need to be taken to establish that? Do you or anybody on the panel have any thoughts about where that might be located?

Dr DeVore: This is going to require a lot of committees in NATO, so there are going to be a lot of transcripts to wade through and, hopefully, a lot of diplomacy. Broad picture: the Baltic as a naval theatre is going to decline precipitously in importance. With Finland and Sweden joining NATO, the Russian Baltic fleet cannot get out of St Petersburg.

On the other hand, Russian anti-access technologies, anti-ship missiles and things like that mean that we also cannot sail a fleet up to St Petersburg, so the eastern Baltic is probably going to end up as a no-go area, except for small boats and very quiet Swedish submarines. The high north is going to become increasingly important for both us and the Russians as the primary area of naval competition.

If there were a high north command, you would probably have both a land component and a naval component to that. Most likely, for the land component, one would see some amount of diplomacy between Scandinavian and Nordic countries about who gets to have the headquarters. It would probably end up in some place like Sweden, or maybe Norway as the oldest Nordic NATO member. The UK would be very well positioned to get the naval headquarters as possessing the largest navy dedicated to the theatre. Probably for NATO operations in the high north, though, ports and facilities in northern and north-eastern Scotland and the Orkneys would be absolutely key.

Thinking about what infrastructure could be repurposed for that, both as permanent ports and as potential dispersion ports, if Ukraine has showed us anything, it is that, in order to be less vulnerable, it is better to operate from a larger number of small ports than be concentrated in one port that your enemy can target.

David Duguid: That is particularly interesting from a north-east Scotland perspective.

Dr Depledge: It is worth acknowledging that NATO has Joint Force Command-Norfolk, which is dedicated to north Atlantic and high north maritime operations. In the sense of thinking about security in the north Atlantic and in the Greenland-Iceland-UK gap, there is already a NATO command that was stood up in 2018 and shares its headquarters with the US Navy.

The bigger question is, looking to the future, whether you seek to build out that command and do more with it, and how you integrate the land component into that. If you have a north European land component—we are thinking of Finland, Germany and the Netherlands—can you integrate that into a command based in Norfolk that is primarily dealing with maritime concerns, or do you need something new that is going to bring these things together?

Dr Allport: Finland and Sweden will definitely be, at least in the short to medium term, net security contributors. I would add that, as a wider NATO issue and not just a high north issue, we need to give some serious

thought that we do not build plans that depend entirely on the US carrying the bulk of the work. It is possible that they would be unwilling—you can see a Trump return to the White House—but it is more likely that they will be unable, because of their commitments to manage the Pacific and China.

For example, we have nine P-8 aircraft in Lossiemouth. The unspoken assumption is that, if there is a major crisis or war, reinforcements will come over from the US to supplement that. The question is what we do if the US is engaged with China at that point or has just come out of an engagement with China and taken heavy losses. Are we in a position to enforce a policy set, not necessarily completely without them but without them doing the heavy lifting?

David Duguid: I have heard more questions back from you than the questions I gave, but very interesting questions none the less.

Q18 **Sally-Ann Hart:** I am going to ask some questions on climate change. It was quite interesting to note that, just in February, the UK Government announced that they are committed to playing a key role in promoting stability and prosperity in the Arctic, as they can see that climate change has triggered dramatic upheaval in the region.

My first question is to Dr Allport first. Is climate change a NATO issue, and should NATO prioritise climate change as a security or defence issue?

Dr Allport: It is a NATO issue, on several levels. For example, in the Arctic, there are potentially drastic increases in traffic across the northern sea route. It will probably not be a new Suez canal or anything that drastic, but it still has to be monitored. Rights of navigation and free passage need to be monitored. Outside that, you also have issues like climate change in Africa, which will bring new migrant flows, and that will potentially drag NATO's attention southwards. It may get to a level of instability where NATO has to become involved on some level, which will divert attention from the high north. Essentially, it works on multiple levels.

Dr Depledge: I agree that it absolutely matters to NATO, not just because of the potential security challenges arising, but also because of the operational effects, and we can look at that in two ways. First, how is NATO going to deal with the changing Arctic environment? It is changing, so it needs a great deal of awareness if it is going to be sending ships and aircraft into the region. That is a problem for the individual countries as well to think about.

Then there is a mitigation piece that never gets discussed, which is that, if you are extending your military footprint back into the Arctic, we know from history that this had enormous environmental and climate-related consequences in the region. If you are now putting more military kit back in, can you do it in a way that is going to not have drastic consequences for the environment and, I should add, the indigenous people who also

stand to be affected by these things? NATO absolutely has to be thinking about how it is going to be doing this.

Dr DeVore: I would like to agree with everything that my colleagues have said and probably add two more areas where climate change is definitely a NATO issue. The first of these is piggybacking off of my conversation over coffee before this with Duncan, who has a current research project looking at net zero and militaries.

Militaries are some of the most carbon-emitting, fuel-inefficient users on this planet. NATO, collectively, is by far the world's largest defence spender. NATO has an interest, scientifically and economically, to figure out to what extent you can reduce military carbon emissions while remaining militarily competitive with your opponents. That is something that NATO should get a handle on in terms of its own carbon signature.

A secondary area where climate change is a NATO issue is that any infrastructure in the high north is going to be disrupted by the effects of permafrost melting. That is going to be our infrastructure. That is also going to be Russia's infrastructure. A lot of the bases that they spent so much money building between 2013 and 2017 in the high north may become very difficult to use, because sinkholes are going to eat up the roads leading to them.

Climate change is something that NATO needs to take into account in its planning calculations and do what it can to mitigate its own contributions to.

Q19 **Chair:** Is NATO conscious of its role in being a major polluter? Is it something that they are addressing? Is there anything that any of you could share with us about that?

Dr DeVore: I will pass over to Duncan, because he knows much more about this than I do. In a previous position, I advised the Swiss agency for defence procurement back in the early 2010s. At that point, there was a real disconnect between central European countries—the Germans and the Austrians—which were reducing the carbon footprints of militaries much more seriously than UK, US and France, your traditional intervening great powers. I have no idea where that is today.

Dr Depledge: NATO is certainly increasing its interest in this area. The strategic concept referred to climate change for the first time in a major way. NATO's Secretary-General has been on the record as saying not only that NATO has to get a handle on climate security threats and how NATO forces are going to adapt to operate in more extreme and unpredictable environments, but also that NATO needs to address its own carbon boot print.

NATO has been working internally on developing a methodology for understanding its own emissions profile. It is not a publicly available methodology, but they have been working on that and, apparently, sharing that with allies, so that everyone can try to get a handle on this.

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Q20 **Sally-Ann Hart:** It is interesting, the environmental impact of war. Just looking at the sea routes and the effect, how will the opening of the new sea routes as a result of climate change alter the defence landscape in the north Atlantic and the high north?

Dr Depledge: It is an interesting question in terms of which sea route you are talking about, because it could be the window of the north-west passage on the Canadian side, which is perhaps of less concern.

Sally-Ann Hart: There are quite a few, are there not?

Dr Depledge: The north-east passage on the Russian side is going to be a very difficult one for western forces to operate along militarily. Then there is a transpolar route, which takes you near the top through the ice as it is retreating. That is potentially interesting because it takes you away from the Russian coast and a lot of those problems, but that is, of course, a far harsher and far more unpredictable environment to go into. It is far more remote, so you would have to be able to sustain yourselves and, if something went wrong, there would not be a lot of people around to help.

It is going to be very difficult for militaries from outside the Arctic to utilise these routes as a passageway between the Atlantic and the Pacific. That said, from a UK perspective—here, we are looking very long-term, I would say—if we think of where China is heading in the future, if it is able to sustain its growing military prominence and develop a capability that it could send through the Arctic, we might have to think about whether the Arctic becomes a gateway for future Chinese projection into the Atlantic, but we are still quite a way from that.

Dr DeVore: I would agree with everything that my colleague said, but I would like to add two aspects to it. First of all, when we are talking about northern sea routes, the first one that is rising to prominence is the north-east sea route going along the Russian coast. That is because the ice on the north-east sea route is melting more quickly than the ice on the north-west sea route, so the legal and UNCLOS type issues relating to the jurisdictions of sea routes are going to be posed first for the Russian sea route before being posed for the Canadian sea route.

That said, the issue is challenging for both our security and our posture, as well as that of the Russians. The challenge for us is that, as the ice is retreating on the sea route and it is becoming more navigable, the Russians are trying to claim, basically, that it is an interior sea route, that they can control it in the same way that the Egyptians control the Suez canal, and that you have to give 45 days' notice if you are a civilian ship or 90 days' notice if you are a military ship. You have to take on board Russian pilots. You have to pay the Russians. There are all sorts of conditions that we consider are incompatible with UNCLOS and the law of the sea.

The Russians have built a series of military positions along their north-east sea route to enforce this attempt to, basically, turn the north-east

sea route into a territorial sea controlled by Russia. That creates real incentives for NATO, the UK and partners to conduct freedom of navigation exercises to challenge this Russian attempt to establish a de facto claim to something that is very tenuous or illegal in international law. Of course, if one is doing freedom of navigation exercises, each time we do it we are risking some form of military confrontation up there.

That is the first way in which the retreating sea ice is creating a strategic dilemma, in that, to assert international law and defend UNCLOS, we have to do exercises that are going to be putting us in a confrontational position vis-à-vis the Russian Federation.

Secondly, from Russia's point of view, the retreat of the sea ice is going to make the bastion defences that my colleague mentioned much more complex. Already, Russian submarines and Russian anti-submarine warfare capabilities have lagged behind US and UK ones. Up until present, they have relied on sea ice as a mitigating factor to help their submarine bastions. As that ice retreats, the bastions will become more vulnerable to our own incursions, so it is challenging for both us and our competitor up there.

Dr Allport: I do not have a great deal to add to that, except to circle back to something one of my colleagues said earlier on in this session. Particularly if Ukraine ends badly for Russia, it will have an incentive to press on access to the northern sea routes to prove that it is still a force to be reckoned with. It will probably take a gamble that NATO is not really willing to fully press the issue, and that is a vulnerability in terms of a lack of resolve.

Q21 **Sally-Ann Hart:** Looking at Russia's new legislation that it has made, developed or imposed limiting navigation along the northern sea route, does that have legal basis in international law? Should the UK and its allies be responding to that?

Dr Allport: My understanding is that they have right of innocent passage through these waters, but I am not an international legal expert in this area, so I would have to pass on.

Dr Depledge: It is a question to really ask a legal expert for the nuts and bolts on, but, essentially, Russia sees these as internal waters, and that is what it is basing its claim on. The UN law of the sea has an article in it for ice-covered waters, meaning waters that are covered with ice for more than half the year, essentially, and that bestows certain rights on coastal states to regulate those waters on environmental grounds. Canada exploits the same logic sometimes in saying, "These are ice-covered waters and, therefore, we are going to use that as the mechanism for control," so there is a little bit of haziness around that.

There is then the challenge in terms of contesting that. My colleague mentioned the conflict potential of these freedom of navigation operations, but the other potential challenge that would have to be taken into account is if something went wrong. If you had an accident or if your

ship broke down, who would you be calling to help? You are going to be calling Russian search and rescue, basically, so there is a huge amount at stake if it went wrong.

When the Americans were talking about freedom of navigation operations a few years ago, these debates were being had then, and people were saying, "Well, yes, but, if you go and something like that goes wrong, it is just deeply humiliating."

Q22 **Sally-Ann Hart:** But then, if you do not go and exercise your freedom of navigation, the Russians will just say, "This shows that these are our waters." Therefore, you have to exercise that right in order to retain it.

Dr Depledge: Yes. Strategic ambiguity is going to get you only so far.

Q23 **Sally-Ann Hart:** Moving on to global competition, I am going to bring China in on this one, but wait there a minute. To what extent is the Arctic likely to become a site of increasing global competition, for example, for resources such as minerals, or territorial disputes, because of climate change in the future?

Dr DeVore: That is a worthwhile question. I do not think that the Arctic is necessarily going to become a realm for increased geopolitical competition because of the availability of exploitable resources. A lot of the views about resources are based still on the US geological survey from 2008, which, basically, estimated that 30% of the world's undiscovered gas and 13% of the world's undiscovered oil lies in the Arctic.

But 70% of those resources are within states' exclusive economic zones, meaning that it is only a minority of the Arctic's resources that are really up for grabs, and most of that would be deep-sea resources. There has also been a fisheries treaty covering the central Arctic up until 2050, which alleviates some of those challenges. That is not to say that states are not going to compete for Arctic resources, but the amount of Arctic resources that are easily exploitable and up for grabs is not such that it should spark a huge new wave of geopolitical competition.

The biggest challenge is not necessarily actors like China, but Russia. Russia views Arctic resources as more valuable than anybody else does. In 2010, Vladimir Putin gave this speech where he asserted that there were $5 trillion-worth of resources under the Arctic. If they believe that there is untold wealth under the Arctic that is exploitable, and they have something like four existing disputes with other states about either boundaries or jurisdictions in the Arctic, the conflict potential with them over Arctic resources is quite real.

Dr Allport: China has an interest in the sense that it has significant investments in Russian Arctic developments in oil and gas. They would, if they came to fruition, provide them with an alternative line of supply as opposed to from the Persian Gulf, through the Indian ocean and up through the South China sea. China probably sees it as more of an

alternative supply rather than seeing itself directly competing in the Arctic.

Q24 **Sally-Ann Hart:** Dr Depledge, how should the UK respond to China's increasing interest and presence in the Arctic, particularly with a view to its friendship with Russia at the moment? Are China's aims contrary to British interests now?

Dr Depledge: Can I just add a couple of thoughts on the previous question and then come to that? I absolutely agree with what my colleagues said. I would just put a slightly different take on it. It may not be competition for the resources itself that is where the competition occurs, but rather competition around the rules-based order in the Arctic, and the regulations and the governance around, say, deep-sea mining, which is one that is attractive, or around the extraction of fish. There, we have to think very carefully about two things.

First, one of the lessons that we can take from Ukraine and the way that the rest of the world has responded to what is happening in Ukraine is that, when the West stands up and says, "We are protecting the rules-based order," other countries are not necessarily against that, but they are not necessarily for that. There is a degree of concern there that we cannot always count on the rest of the world to rally round to our point of view on these kinds of questions.

Marry that to the breakdown of the Arctic Council and this circumpolar consensus. If Russia and China started to deepen their co-operation and to present an alternative vision of how this extraction should occur, could the West rely on the rest of the world not to go with that, rather than coming round to a more sustainability, climate and environment-focused agenda? That is an interesting competition to think about.

Coming on to the specific piece about what the UK should do, China poses a really interesting problem to think about in the short term. A lot has been said about China and how it has arrived in the Arctic, but a lot of that is overstated. Certainly, if we go back 10 years, when the Chinese were stepping up their interests in the region beyond the Russian Arctic, particularly in the Nordic Arctic, the North American Arctic and places like Greenland, there were all these great projects and great investment opportunities.

An awful lot of those have not come to anything, and there has been a lot more pushback against China. China has been almost boxed into the Russian Arctic, in many respects, by a growing concern in more recent years that we need to be careful about what we allow China to invest in. We need to be careful not to overstate the size of the Chinese challenge in the Arctic.

When it comes to what the UK should do about it, it has to be in concert with allies. It has to be in terms of shared messaging and a co-ordinated response. Ultimately, it is going to be down to the Arctic states

themselves to decide how much investment or how much engagement they want to accept from China. Having the UK preaching from the side lines, when our own relationship with China has different dynamics—

Chair: I am very conscious of time. I know that this is a fascinating conversation. We want you to please expound some of this, but we are just conscious that we are maybe detaining you unnecessarily. If you could maybe condense your responses, do not feel that you have to say the same as everybody else when you are being asked these questions.

Q25 **Sally-Ann Hart:** It is interesting, because China has described itself as a near-Arctic state. Does anyone else have anything to add to that question about how the UK should respond?

Dr DeVore: China proclaimed itself a near-Arctic state in 2018 and, subsequently, stated that its objective was to be a polar power by 2040. That received enough blowback from the Arctic eight that they have backpedalled, and that term of "near-Arctic state" has been dropped from subsequent Chinese diplomatic communications, which shows that the Chinese are still sensitive to the way in which they are perceived in the area and that they realise that maybe they were overstepping what the Arctic eight were willing to view there.

That said, as you suggested, our policies are invariably pushing China into Russia's arms in the Arctic. As we divest from the Russian Arctic, China becomes the only partner capable of funding large-scale development projects and bringing technologies to Russia that it does not have. In a way, this is creating a rapprochement, whereas Russian and Chinese objectives in the Arctic prior to 2022 were somewhat divergent, particularly on things like the north-east sea route.

I do not really see much that we can do to drive a wedge between Russia and China in the Arctic, but it is worth recognising that Russia's increasingly tense relations with the West, and our divestment from Russian projects in the Arctic, are going to inevitably push them to co-operate more closely up there.

Q26 **David Duguid:** Again, thank you, witnesses, for your fascinating answers. When I first thought, "I am going to ask a question," I thought, "I will get my turn," but then so many other questions have come up since then. I am going to limit myself to what I was planning to ask you.

Bringing it back to our own exclusive economic zone here in the UK, particularly in the north and around Scotland, and our offshore and sub-sea infrastructure, we have existing oil and gas platforms and pipelines, for example, but also a growing amount of offshore wind and undersea cables being installed all the time.

To what extent are those vulnerable to threats? There has always been a vulnerability there, but to what extent has the threat from the direction of the Arctic and the high north increased?

Dr DeVore: That is a great question. Yes, the threat up there has become manifest within this past year. The fact that Russia—presumably Russia—has been cutting cables and sabotaging pipelines shows an appetite for certain hybrid behaviours that were always physically possible, but we did not necessarily think a state would engage in during peacetime.

We have to be more concerned about that threat. I suspect MoD is doing various things to make this infrastructure more resilient. We probably have to look at making the infrastructure more resilient either by deterring attacks on it or by being able to quickly repair, replace or defend infrastructure going forward.

Q27 **David Duguid:** Dr Allport, in some of your responses you have raised some thoughts that were not in my mind before. I was just wondering what your response to that question would be.

Dr Allport: We need to worry because they have the capability and they have, to some extent, the intent. The Government are currently moving forward with devising various countermeasures. Some of that is traditional intelligence. RFA Proteus will be the first of the seabed security monitoring vessels. The flipside of that is that there is a lot of undersea infrastructure. There are a lot of pipelines; there are a lot of cables. There is a fair amount of redundancy there.

The main threat is agents of chaos, as it were, rather than fundamentally shutting things down. We do not have an equivalent of Nord Stream in the UK that we are critically dependent on, but this is still a major threat and it would cause significant economic disruption.

Q28 **David Duguid:** Thanks for that. It is all very worrying. Is there anything specific that the UK Government as a whole or the various industries and energy developers developing these offshore projects, particularly in the field of offshore renewable electricity, should be thinking about or doing differently to address that threat?

Dr DeVore: I do not know what they are doing today. I would hope that, from the onset of projects, there is an active consultation and receiving of advice from the MoD on risk mitigation. I doubt that was occurring to the degree it should have been a year and a half ago. Going forward, that is probably the right response. Resilience and responding to this threat need to be built into these projects from a relatively early stage. Otherwise, they will become overly temping targets for agents of chaos.

Q29 **David Duguid:** Another question occurs to me, if I may have one more on this subject. Is there any way in which the offshore energy infrastructure we are continuing to build poses a threat to our defence capabilities by getting in the way? I am not saying we should not do it, but is there a risk there that needs to be somehow addressed?

Dr Depledge: The only thing I can speak to is that I know concerns have been raised—like you said, not in the sense that we need to not do this—

about the Navy's surface warships. You are reducing their operating space by putting more stuff out at sea. That in itself is a consideration. How do you plan that in such a way that you can minimise the impact on naval activity in those waters? Will the Navy be sufficiently attuned to where stuff is to avoid it?

David Duguid: I am very familiar with that concept from the fishing industry, which looms large in my constituency. I will not go there either.

Dr DeVore: I would say offshore infrastructure is a two-edged sword. On the one hand, if it is not included in naval manoeuvres, if one does not have civil-military consultations about how it will be used, it can obstruct operations and pose a challenge. On the other hand, in the event of a major conflict, if one has properly planned and considered things, it can also be an asset.

After 2014, the Russians put a fair amount of radars and air defence equipment on the nine oil platforms they seized in the Black Sea. The Iranians regularly weaponise platforms. If one were to ever face a really large conflict in the north Atlantic, offshore infrastructure could, with some lead time, also be turned into an asset as opposed to being a liability. That requires planning, wargaming and exercising to do properly.

David Duguid: As you say, those are probably better questions for the MoD, but thanks for your input.

Q30 **Deidre Brock:** Thank you, gentlemen. This has been an absolutely fascinating session and a great start to the inquiry. I appreciate that.

I just wanted to ask about the importance of Scotland-based capabilities to UK operations in the north Atlantic and the high north. As that region becomes more strategically important, what further demands do you expect will be placed on Scotland-based capabilities? Dr DeVore, you mentioned further investment in ports up in the far north, for example in Orkney and further down. What are you expecting to see happen?

Dr DeVore: I am not sure I am expecting anything in particular to happen, but, as the strategic centre of gravity for UK naval operations shifts, and as allies such as the Americans or some of the western Europeans operate more in the high north, Scottish ports and maritime facilities could play a larger role.

Looking geographically, Scapa Flow in Orkney is probably the best natural harbour any NATO member possesses for controlling the GIUK gap. If redeveloped, it could be a major centre of operations. The south harbour of Aberdeen would also have certain potentiality.

Q31 **Deidre Brock:** What makes Scapa Flow the best for that purpose? Is it the depth of the harbour? Forgive me.

Dr DeVore: It is depth, size and geography. Scapa is a very large harbour. If one is talking about massing a bunch of ships but having

them anchored sufficiently far apart that they do not constitute an easy target, Scapa is large enough to do that. It is the only location that far north that has that geography. Given that there are a fair number of airbases on the Orkney and Shetland Islands, as well as at Keflavik in Iceland and nearby on Norwegian territory, it is also easy to protect from an air point of view. Those are the geographical advantages Scapa has.

If one is thinking in terms of long-term deployments and sustainment, probably Rosyth with its port infrastructure has the potential. If the Americans are contributing but not in a leading role, as my colleague mentioned, Rosyth would be a very logical place to maintain and refit American ships collaborating in GIUK gap type operations.

Deidre Brock: Dr Depledge, you were nodding. Do you have anything to add?

Dr Depledge: I was nodding in agreement primarily. One of the interesting things would be to think about how much more capability is going to be needed in Scotland. The UK has been proceeding in partnership on maritime patrol aircraft, for example, with the Norwegians, Iceland and the Americans. Clearly, there is a sense that this capability is going to be distributed around a little bit. How much more does Scotland need to be able to take? You do not necessarily have to be doing this by yourself because you are doing it in partnership. That is a question worth exploring.

Lossiemouth is now being described as a super-base. There is a sense that we will put everything in Lossiemouth. I sometimes wonder about the strategic sense of that. I know Kinloss and Leuchars still have operational runways and things. You could perhaps very quickly bring them back so you could disperse your forces a little bit. Longer term, if the threat environment got worse, they are the kinds of things you would probably have to reinvestigate in Scotland.

Q32 **Deidre Brock:** You are suggesting that we spread things out from Lossiemouth rather than having it all concentrated there.

Dr Depledge: Yes, exactly.

Q33 **Deidre Brock:** One of you mentioned something about that before. Dr Allport, the think-tank you work for and are representing here, Human Security Centre, has raised concerns about Scottish bases being priority targets in the event of war. You pointed out that HMNB Clyde and Lossiemouth do not have permanent ground-based air defence capabilities, being dependent on combat aircraft. Could you expand a little bit on that? What other proposals has the Human Security Centre come up with that the MoD might be thinking about in terms of addressing those issues?

Dr Allport: Historically, RAF bases have had a surface-to-air capability, but that was divested. The Rapier missile batteries were disbanded in

2008, I believe.[1]They have a limited anti-drone capability. The RAF is currently developing and investigating that.

In terms of traditional kinetic systems, of the type we have been passing on to Ukraine to deal with Russian drones and cruise missiles, the RAF does not operate those and the Army does not have them on such a scale that they could be deployed both to forward-deployed forces, say in eastern Europe, and for homeland defence. That is the lack of capability you have there.

The vulnerabilities in Scotland are to standoff cruise missiles like the Kalibr cruise missiles launched from Russian submarines, which we have seen used in Syria and Ukraine. There are also air-launched missiles as well. The Ukrainians have been successful in using fighters against some of these cruise missiles, but you really need a multi-layered approach with a backstop of missile defence to stop them.

As you say, at the Lossiemouth super-base we have a great percentage of the UK's fighter force, all of the maritime patrol aircraft and soon all of the airborne early-warning aircraft in one location. You can disperse them, but that causes its own problems in terms of technical support.

You really need a fairly robust defence. It does not need to be ultra-hardened. There are limits to the capability Russia could bring to bear. They could not shut down the Ukrainian air force, as they tried to at the beginning of the war.

This is not something you want to slip through. Particularly, large aircraft like maritime patrol aircraft are not in hardened shelters, for example. They are in basic metal structures that you can put a missile straight through. It is not the thing you want to happen even to a small degree because you will lose a lot of capability.

Q34 **Deidre Brock:** Indeed, so you are basically saying that there is not sufficient anti-missile defence.

Dr Allport: No, not in Scotland. There has been a shortfall since the last of the Rapier batteries went. There has been a shortfall since just after the cold war ended. The Bloodhound missiles were not replaced as was planned. That was one of the post-cold war cuts. We have not had a proper anti-surface-to-air missile capability since then.[2]

Q35 **Deidre Brock:** Are you aware of any plans in place to try to strengthen that?

[1] Clarification from Dr Rowan Allport 10/3/23: The RAF Regiment as a whole withdrew the last of the Rapier surface-to-air missile systems in 2006/2007. The Rapiers based at RAF Lossiemouth itself (operated by 48 Squadron RAF Regiment) were withdrawn in 1996.

[2] Clarification from Dr Rowan Allport 10/3/23: 'ground-based surface-to-air missile' rather than 'proper anti-surface to air missile'

Dr Allport: The Army is in the stages of putting together a missile and airborne threat system. We do not have the details of that and we do not know the scale of that. It is scale that will be important in terms of what is available to do what simultaneously.

Dr DeVore: This is a major issue. Russian doctrine and its campaign in Ukraine hinge on shutting down airbases quickly by striking them on the ground. Thankfully, for the next couple of years, Russia's stockpile of Kalibr missiles will be depleted based on its operations in Ukraine. It will probably take at least six years, even in the absence of Western sanctions, to reconstruct their arsenal to what it was before the war began.

Concentration in super-bases creates very vulnerable targets. There are basically four things you can do to defend aircraft. One of these is what my colleague mentioned, which is defence. That is providing better air defence systems capable of shooting down missiles. One is dispersion, which could involve reactivating airbases, such as previously decommissioned airbases like Leuchars, or dispersion to civilian airports.

A lot of what Ukraine did to avoid having its own air force grounded from day one of the war was very timely dispersion. Dispersion, rather than defence, probably played a greater role in the Ukrainian air force's survival.

Q36 **Deidre Brock:** The planning would have been in place in Ukraine to be able to do that rapidly.

Dr DeVore: Yes. Dating back to Soviet times, they built a lot of dispersal airfields. The Ukrainian air force was dispersed from its main operating bases before the war even began. Dummies are a third thing. It is very difficult from a satellite, particularly a Russian satellite, to distinguish what is an inflatable aircraft versus what is a real one. Getting them to waste money on destroying inflatable aircraft is something that is very useful. The Ukrainians have been doing that, and the Serbs did that against us in 1998 or 1999.

Defending our airfields against something that we view as a proximate threat requires multiple measures, which we probably need to start thinking about, given the way geopolitics has gone.

Q37 **Deidre Brock:** You said there were four: defence, dispersal, dummies and—

Dr DeVore: It is hardening. Hardening was the first thing introduced after the Israelis destroyed the Arab air forces in the 1967 Arab-Israeli War, where air forces discovered they could defend themselves by building big concrete shelters to cover aircraft. That is easier for defending small fighters than large P-8s, but hardening can also be very successful particularly against a threat like Russian Kalibr missiles, which are not good at penetrating bunkers.

Q38 **David Duguid:** A lot of the questions I was planning to ask have already been answered. I will try to compress things as much as I can.

Following on from the conversation we had back in St Andrews, Dr DeVore, and given the previous focus on places like Iraq and Afghanistan, I wanted to ask a bit more about whether the UK Armed Forces, or NATO armed forces at large, have the right kind of cold weather or Arctic capability to be able to respond to the changing landscape. You have already covered a lack of icebreakers. Without going over things we have already spoken about, what gaps have we not talked about that still need to be addressed?

Dr DeVore: Part of the question is about training and kit, and part of it is an issue of prioritisation. If one is operating in the very high north, there is a lot of training and bespoke equipment that is needed and is not readily employable in other theatres of operation.

The UK commando force has been very focused on this. They train very hard. When I was recently meeting with the Swedish Arctic rangers, they said the Royal Marines were one of the only non-Arctic forces they viewed as equally capable of operating in this environment as themselves. That requires a lot of bespoke equipment and training, which also makes these forces less capable of, say, being deployed to Estonia to face Russian tanks.

There is a question of how specialised one wants to be on the high north mission. There is a much higher bar in terms of specialisation for that than there is if one wanted to contribute to Finland's defence around Karelia, for example, which is south of the Arctic circle in Finland, or to the defence of the Baltics. Defending further south involves, yes, some cold weather exercises, thicker jumpers and things like that.

If you are really operating in the north, you cannot have tanks and certain vehicles. You need less of a logistical footprint. All of that makes you better for that environment but potentially less capable in others. There is a real question of trade-offs that needs to be, and I hope is being, weighed.

Dr Allport: Thought needs to be given as to the scale they are intending to operate in the high north. For example, the littoral response group is built around a Royal Marine company. Previously, 3 Commando Brigade in its entirety was assigned to the high north during the cold war at least. There is a question about the scale you want to operate, how you want to posture yourself and how you train that force to be able to deploy it when you need it.

Dr Depledge: I would reinforce the points about geography, specialisation and scale, of course. The other piece of the puzzle we might need to be thinking about more is automation. It is certainly worth exploring drones and unmanned systems. The Protector drones are coming in, for example. Even if they are going to be controlled from

Lincolnshire, it would be useful for them to be based at Lossiemouth so they can spend more time on mission in the high north.

In the next 10 years it may not all be about whether we can find enough personnel and ships. There might be innovative solutions to investigate that can help mitigate these challenges.

Q39 **Christine Jardine:** That was very timely because I was going to ask you about drones. Just to recap slightly, it is interesting to hear the names of the bases you have mentioned, such as Scapa Flow, because they are all critical in British military history. The only one you have not mentioned is Holy Loch. I wondered whether that might come into it as well.

Dr DeVore, you mentioned that there are no icebreakers or ice-hardened ships any more. Do we have to look more to autonomous weapons and autonomous systems like drones? Presumably, hopefully, these could operate in any conditions for defence and security in the north Atlantic and the high north.

Dr Depledge: It is a really good question. James Rogers, a colleague from the University of Southern Denmark, has done a lot of work on this. He may be someone to tap up for his expertise specifically. I would recommend him to the Committee.

Yes, drones are interesting in all kinds of ways. My colleague talked about the Arctic being remote and the need to operate with a lighter footprint. You need fewer people and all these sorts of things. You can already see how drones and unmanned systems would potentially create all kinds of advantages.

The question comes back to, "How do you power them?" If they are operating in extremely cold conditions and they are battery-powered, for example, how long are they going to be able to remain on mission before you have to bring them home? All of that needs thinking about, but there is a huge opportunity space there to dive into.

Q40 **Christine Jardine:** Does the UK currently have the drone capability it would need to operate effectively in the high north, if it had to?

Dr Depledge: It depends on which part of the high north. The Protector will do fairly well north of Scotland and into the Norwegian sea. Whether it can operate up near Svalbard or north of Svalbard I simply do not know.

Q41 **Christine Jardine:** That brings me back to the question about the capability based in Scotland. Dr Devore and Dr Allport, do you want to add anything to that?

Dr DeVore: I would echo everything that has just been said. Operating in the high north, particularly the higher you go, is very fraught. It affects drones as well as it affects people. All things being equal, uncrewed or unmanned systems are going to have a greater comparative advantage

the further north one goes. One simply cannot take drones one was using in Iraq and Afghanistan and expect them to operate in Svalbard.

This is definitely an area one would want to invest for operating in the high north. One also has to tailor the technologies for it. Yes, UK Royal Navy actors have been experimenting with and debuting promising drone technologies that would be applicable. One would need to continue that development process to the point where it will produce the capabilities that we want.

In brief, we have the capability to get there. I do not think anybody necessarily has the mature drone capacity to operate in the places we are talking about, but we can develop it, if that is our priority.

Dr Allport: I would agree. Drones have the ability to become a great force multiplier in the high north and almost everywhere else. I will just add, though, that they bring additional complications to operations. For example, a few years ago the Iranians shot down quite a large and sophisticated US drone. They knew it was a drone. They would not have done that had they thought there were crew on board. You are potentially lowering the threshold, if you send in ships, aircraft or sub-surface vessels that are uncrewed.

Q42 **Christine Jardine:** What advantages would there be to using these capabilities in Scotland?

Dr Allport: If, for example, you wanted to operate them as an appendage to the maritime patrol force, the P-8s, it is always useful to have everything at a common base. The thing about drones is that they have a huge amount of endurance. It matters less where you base them than is usually the case with crewed aircraft. [3]

Q43 **Christine Jardine:** Moving on from that, one of the other things that is often talked about is being able to provide a capability in space. I cannot remember which one of you mentioned Russian satellites at the beginning. What opportunities might there be for Scottish spaceports to meet the demand for satellite launches, or for the wider Scottish space development sector, as we look towards operations—I do not want to use the word—in the high north? Have you not thought about spaceports?

Dr DeVore: I would like to refer everybody to the work of my colleague at St Andrews, Adam Bower, who was at the event when we spoke in January and who also submitted written evidence. I will tell you what I have learned from him.

Basically, Scotland is very well positioned when it comes to space. It is in the process of building three spaceports, with two vertical launch ports,

[3] Clarification from Dr Rowan Allport 10/3/23: This is a specific reference to the Protector drone and its potential ability to support the P-8. Drones in general have a broad variety of levels of endurance, and require differing levels and types of support.

one in Sutherland and one in Shetland, and Prestwick airport potentially being used as a horizontal launch facility.

Glasgow is a leader when it comes to producing small satellites, and much of the satellite market is moving in the direction of small satellites. In the security and defence area, small satellites are less vulnerable and they are easy to put up. As we have seen in recent years, Russians, Chinese, Americans and Indians have all tested anti-satellite weapons. Hitting a small satellite is much more difficult and less worthwhile in terms of the cost-benefit trade-off than hitting a larger satellite. From a civilian point of view, small satellites are useful because they are cheaper. As microprocessors get more powerful, you can put more capabilities into something the size of a shoebox.

Scotland definitely has advantages, particularly for low-earth orbits and polar orbits, which are orbits inclined at 80 to 90 degrees relative to the equator. Launching from Sutherland or Shetland has real advantages. All of this means Scotland could potentially emerge as a major space actor. The commercial space launch and commercial small satellite industries are booming quickly, but the number of start-ups is booming more quickly than the industries themselves. There is going to be furious competition and a winnowing process.

If Scotland is ultimately going to end up as being a key provider there, it is going to require good public policies: investing in research and universities, helping speed along the regulation for getting spaceports built—from what I have heard, that is an area where the UK is lagging—and other public policies that can potentially bolster the sector.

Dr Allport: It is a booming industry. Norway and Sweden are also building spaceports for the same reason. I am not an expert on these sectors, but, as I say, this is a highly competitive area. It may come down to what price we are willing to pay for a sovereign space launch capability and what the trade-offs are there.

Dr Depledge: I would circle back to the environmental impact considerations, which often get forgotten. It is quite interesting. I do not know what the situation would be for a vertical launch from Scotland. Certainly, when Russia launches a rocket, the debris quite often lands in the Canadian Arctic and affects the indigenous peoples there.

Where does the debris from the launch end up, given that you are launching near to the Arctic? How are you going to manage that? That is worth thinking through.

Q44 **Andrew Western:** One thing we have not discussed in terms of collective defence is the Joint Expeditionary Force. That may be because to some extent Finland and Sweden applying to join NATO makes it less relevant than it once was, but clearly there are things that specifically pertain to the countries that make up the Joint Expeditionary Force. Dr Depledge said very early on that he viewed the wider north as including

the Baltic.

Should the principal interest of JEF shift from the Baltic region towards the north? How can the Joint Expeditionary Force complement our other allies, such as NATO? What contribution can it make to defence and security in the high north?

Dr Depledge: It is a very good question. Should they divert from the Baltic to the high north? This is why I talk about the wider north. The point is that it should not be one or the other; it should be both. The question is not, "Which one should we choose?" It is, "What more do we need to bring to JEF so it can cover all of it?" With Sweden and Finland, it is again that point.

The simple argument is this: can you imagine a scenario in the Baltics that would not have a high north component to it? Ditto, if there was a high north scenario, would it not have a Baltic component? JEF has to be able to do both.

Dr DeVore: I would agree with that. Your question is a very good one because it really conceals two questions. One is a question of politics and the other is a question of specialisation. There are really three areas where one could imagine JEF operating: the Baltics, which has been its original mission since 2014; north of the Baltic Sea, in Finland but not yet high north, a place like Karelia or closer to Finland's more southerly borders with Russia; or all the way up into the high north.

The issue about whether it is going to be on the southern or the northern side of the Baltic Sea is a political question. There it is a question of how nervous our Baltic allies will be if we remove this capability. Would they be willing to keep their contributions to it if it was moved further up? Will the Swedes or Finns put any pressure to try to move it further up?

The cold weather training and equipment JEF has been doing in Estonia would be applicable to, say, Karelia. If you were moving up to Lapland and the high north areas, you would have to change fundamentally the table of organisation and equipment and do a lot of very extensive Arctic training, which would require a real re-specialisation.

From a purely military point of view, probably the best place to put JEF would be Karelia, but from a political point of view it might be good to keep it where it is, on the southern shores of the Baltic. It would be very costly to retrain it to operate in the truly high north.

Dr Allport: I will give a slightly different answer there. JEF is important to preserve the second centre of decision-making. It has a great utility in terms of being not NATO. It can explore ideas, particularly developing concepts that do not involve the US to a significant degree, without offence. It has a higher degree of flexibility than a European Union entity perhaps might have in the future. It is definitely worth preserving.

I can see a scenario in the future where NATO is once again distracted in a different direction, probably in the African or southern flank direction. Preserving JEF allows you to keep at least a core of expertise and focus on the high north, even if NATO's eyes are to a certain extent pointed elsewhere. If NATO were to develop a dedicated Arctic command, it would mitigate that somewhat. For the moment at least, JEF fulfils a very important role.

Q45 **Andrew Western:** What role do Scotland-based capabilities have in JEF?

Dr Allport: I would probably flag up 45 Commando in terms of the Arctic warfare infantry leads. Beyond that, though, there are all sorts of capabilities that can be added as and when needed in terms of aircraft, maritime patrol and soon airborne early warning aircraft. The entire attack submarine fleet will soon be based on the Clyde. There are a huge number of capabilities Scotland can offer to JEF, depending on what is needed, when and where.

Q46 **Christine Jardine:** How much is closer co-operation with our Arctic allies to create further opportunities for shared maintenance, such as the existing agreements, going to be important moving forward?

Dr Allport: There are existing agreements in terms of P-8 maintenance. We have an agreement with Norway. I am not sure of the details and exactly how that works. Given that all the P-8s, in not just the UK and Norway but soon to be Germany as well, are covering a similar patch of the north Atlantic and the Baltic, there is a great utility in terms of basing, one transferring to the other for cross-training and things like that.

Beyond that, though, we are already quite well integrated. The Royal Navy recently purchased a new anti-ship missile from Norway. There are other things in the pipeline as well in terms of operating the F-35, although the UK operates a slightly different variant to Finland and Norway. There is definitely a great deal of potential there.

Q47 **Christine Jardine:** What opportunities could there be for bases in Scotland? The potential is already there, but how do we develop it further?

Dr Allport: Again, it is difficult to tell. I cannot really think of anything off the top of my head right now.

Dr DeVore: I would definitely echo everything that has been said. It does strike me that there may be opportunities. This is very hypothetical, but, if other NATO members want to contribute to the high north because areas like the Mediterranean and the Baltic are becoming less strategic—certainly, the Baltic is becoming less strategic—they will probably need maintenance and sustenance closer to the high north.

From the point of view of Scottish infrastructure, one could imagine an accord for Rosyth to handle resupplying or maintenance on NATO allies

further from the south or the United States operating in the high north. The one opportunity that has not yet been seized but might be developing would be for Scotland-based ports or infrastructure to sustain NATO allies who are not already high north participants or Arctic-based states and support their operations further north.

Q48 **Christine Jardine:** Finally, from everything you have said today, it strikes me that, sadly in some ways, the tension is likely to shift to the high north, providing an opportunity for Scotland to benefit from the use of everything from our North sea installations to Scapa Flow or Rosyth, and there is a strategic capability and opportunity available to Scotland.

Dr Depledge: You can certainly see that this is about Scotland reprising a cold war role, which it has not been asked to play for decades.

Q49 **Deidre Brock:** Very quickly, there has been some criticism of the fact that the Royal Navy surface fleet is not seen much in Scottish waters. Could the challenges arising around the high north region potentially see more of the Navy fleet based up in Scotland, at Scapa Flow, for example? Is that something you could see happening in the future? Do you need it close to hand rather than in Portsmouth or wherever a lot of them are based?

Dr Allport: Full basing would probably be a challenge given that you need to duplicate a certain amount of the support infrastructure. That has more or less been pared down quite a lot. Ships are concentrated in the south of England at the moment. I am sure there will be a lot more activity. There are plenty of places there and on the way to stop, refuel and resupply before proceeding further north.

Q50 **Deidre Brock:** The investment in infrastructure down in the south means there is insufficient investment currently up in the north, in Scotland, to make that viable at least until such time as someone decides to put further investment in. Is that what you said?

Dr Allport: You could always invest and further develop the support infrastructure. I am not overly familiar with the picture in Scotland as it currently is. There is certainly scope for further investment in Scotland, if you wanted at least forward deployment if not basing.

Q51 **Douglas Ross:** Good afternoon to our panel. Can I take the conversation back to the discussion Dr DeVore and Dr Allport had about Lossiemouth and the potential for it to be an inviting target? That was your evidence, Dr Allport. As the MP for Moray, which is home to Lossiemouth, and someone who lives just over 10 miles from the base, what would you like to say to reassure my constituents about this?

Dr Allport: It would have to be a very deep conflict with Russia for an attack of that fundamental nature to happen. In the grand scheme of things, it is quite unlikely. I would still suggest that adequate measures have not been taken either in the form of the air defence systems I proposed or the dispersal options my colleague proposed.

Q52 **Douglas Ross:** Those adequate measures, which you said were last in place in 2008, under the previous Labour Government, were therefore removed when we still had the Nimrods at Kinloss.

Dr Allport: I believe so, yes.

Q53 **Douglas Ross:** That was long before the P-8s were thought of as being based at Lossiemouth. Was this a strategic decision by the Government to remove that? Was it a cost issue? I do not know how you appropriately reassure people there is not an imminent threat.

Dr Allport: This was in the good old days when we at least hoped that Russia was not going to be the state-on-state threat, as were a lot of the decisions taken that got us to where we are today.

Q54 **Douglas Ross:** In terms of what you are suggesting, what is the cost involved in that? Is it prohibitive? In your evidence, you mentioned that the Army is in control of this and is extremely limited in number in terms of surface-to-air defence.

Dr Allport: They are extremely limited in number. There are only a few regiments that specialise in this. We have had to pass some of that equipment on to Ukraine as well. That has made it more complicated. As I said, the Army is currently developing a programme to deal with the full spectrum of airborne threats. The question is whether that can be expanded to deal with threats to the homeland as well. That would be my question.

Q55 **Douglas Ross:** Is it cost-prohibitive or not?

Dr Allport: It is not cost-prohibitive. If you look at the equipment plan and the constant underfunding, it is another thing that needs to be added on to the list of things that need to be done. It is not cost-prohibitive in my view.

Q56 **Douglas Ross:** Dr DeVore, if you were trying to reassure my constituents, you might say, "We could shove some balloons up, and that would solve some of the problems." Could you expand on that? I say it jokingly, but I know it is serious and it has been used in the past. How does that work?

Dr DeVore: Decoys and dispersion tend to go hand in hand. The theory—this goes back to the second world war—is that you can keep a limited number of highly valuable aircraft safer by distributing them over a larger number of bases and also by putting up realistic decoys away from the real aircraft.

Q57 **Douglas Ross:** When you say "putting up", that is not putting them up in the air but putting them up to aim for on the ground.

Dr DeVore: Yes.

Douglas Ross: There is not going to be a P-8-sized balloon flying above Moray any time soon.

Dr DeVore: P-8s would be relatively large ones, but yes. Dummies can be produced in a variety of ways. There are versions that screw together, which are almost like giant model kits. There are inflatable ones. Most are not of P-8 size.

The thought would be that, in a pre-crisis or pre-conflict period, one would disperse the fleet of valuable aircraft and camouflage them while at the same time setting up a certain number of dummies to convince the enemy it is not worth striking them because they cannot be assured of hitting and attritting the real force or to get the opponent to waste its limited stock of missiles on fake targets. The Ukrainian approach has relied much more on that than very expensive point defences.

Q58 **Douglas Ross:** Before I come on to the dispersal argument, when both of you were discussing the potential threat to Lossiemouth with colleagues—I know it would not necessarily be by this means—neither of you mentioned the QRA, which is part of our protection there as well. Would you agree?

Dr Allport: Yes, QRA is the air defence capability at the moment. The one in Scotland is primarily dedicated to the Russian threat at the moment, yes.

Q59 **Douglas Ross:** On dispersal—this flows quite nicely from the reason why the QRA is there, with the P-8s, the Wedgetails and suchlike—we have a very unique weather stream in Moray, which is part of the reason why we are successful at getting these aircraft there. If you disperse them to other parts, yes, you have more targets, which minimises any potential losses in an attack, but they are based there for a good reason. One of the good reasons is the weather we have in that area. Is that something you accept?

Dr DeVore: Yes.

Q60 **Douglas Ross:** I was involved in the campaign to keep RAF Lossiemouth open. Part of that was because we had more flying days available. At a time when we are trying to ensure we are as ready as possible to launch in whatever circumstances, we want our crew and pilots to be able to train as much as possible. They could train more days based at Lossiemouth than at other similar stations.

Dr DeVore: Dispersion always has its trade-offs. Throughout the cold war, the Swiss and the Finns—the Finns might still do today—planned to disperse to highways and other places. They planned to disperse fairly widely, which usually does result in a lower sortie ratio because you are operating from facilities that are less bespoke. With Lossiemouth, one would face that in other terms.

One can imagine variants of dispersion. As I said, it is difficult to create dummies the size of P-8s. Dispersing the QRA would require fewer resources, which would mean that that target set could be dispersed and

therefore one could concentrate ground-based air defences on protecting the P-8 force. There are various ways one could do this.

Yes, to some degree dispersal does sacrifice efficiency for keeping your aircraft in one piece. You might have great flying weather, but that does not help you very much if your aircraft have been destroyed on the ground.

Q61 **Douglas Ross:** In this scenario, would you move QRA from Lossiemouth?

Dr DeVore: First of all, dispersion only occurs in the period immediately preceding war. Usually, the model is that you keep all of your assets at a large base in peacetime and then you have an immediate pre-war plan for dispersal and protection. That is what one would be playing around with.

It is the MoD and the RAF that should be doing the modelling and testing this with wargames. They can simulate the weather conditions. They should also pore very closely over the data coming from Ukraine about Russian's ability to detect targets, hit airbases and the ease of shooting down Kalibr missiles.

I was talking about the broad principles, but one would want to game it out and weigh the pluses and minuses. It might come out that dispersion, for the particular geographical reasons of Lossiemouth, is not the best option. It may turn out that one wants to plan some forms of dispersion and not others.

Q62 **Douglas Ross:** Finally from me, this is our first evidence session. We are hearing from a lot of people, but most of them are, like you, academics and experts in this area. Is there enough understanding among the general population in Scotland and across the UK about what is happening in the high north at the moment?

That might have been increased because of what is going on with Russia and Ukraine, but are we in a good place in terms of the general understanding and the debate we have in Scotland either through Parliament or through your discussions? You are shaking your head, Dr Depledge. While I am asking that question, is that a good thing? Do we not need to worry people about these things at the moment? That would be my follow-up.

Dr Depledge: I was shaking my head because that took me back to when I was doing my PhD research on why the Arctic matters to Britain in the 21st century. That was the exam question I was trying to answer. So much of our focus is on the great explorers, the Victorian era of expedition and this romantic image of the Arctic, but very few people understand that the Arctic is changing in profound ways. This is intimately related to issues around climate breakdown, why we need an energy transition and all of those sorts of questions.

In terms of the evolving strategic environment, we have to make sure people understand that. I do not mean that this is a massive public awareness thing, but, at a certain level, people need to recognise that what is happening in the Arctic does matter and we have a degree of agency with regard to that in terms of making decisions. Maybe we should be investing more resources in some of those challenges.

One thing that has come out of this discussion—it is part of the broader debate anyway—is whether UK defence is spreading itself too thinly at the moment. If you are going to say, "We need to start making trade-offs," someone needs to be making a very compelling case about why the Arctic should be attracting attention over, say, the Baltic, the Mediterranean or the Indo-Pacific. At the moment, our knowledge and understanding about the Arctic is probably behind those other spaces, and as a result it will suffer in those debates.

Douglas Ross: Hopefully, given the massive following of this Committee and those who watch it, we will all be better informed because of your evidence.

Chair: Thank you all very much for that. It was a fascinating session. You have got our inquiry off to the best possible start. We asked you for a couple of things, which I am sure you will provide to the Committee. If there is anything else you think would be useful to us, please pass that on to us. For today, thank you ever so much for your attendance.