HOUSE OF LORDS

Select Committee on Risk Assessment and Risk Planning

Corrected oral evidence: Risk assessment and risk planning

Wednesday 14 April 2021

11.15 am

Watch the meeting

Members present: Lord Arbuthnot of Edrom (The Chair); Lord Browne of Ladyton; Lord Clement-Jones; Lord Mair; Baroness McGregor-Smith; Lord Rees of Ludlow; Lord Robertson of Port Ellen; Viscount Thurso; Lord Triesman; Lord Willetts.

Evidence Session No. 18 Virtual Proceeding Questions 183 - 192

Witnesses

I: Major General Charles Stickland, Assistant Chief of the Defence Staff (Operations and Commitments), Ministry of Defence; Paul Wyatt, Director of National Security, Ministry of Defence.

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Examination of witnesses

Major General Charles Stickland and Paul Wyatt.

Q183 **The Chair:** Welcome back to the House of Lords Select Committee on Risk Assessment and Risk Planning. We now have the second panel. We will welcome Major General Charles Stickland, the Assistant Chief of the Defence Staff (Operations And Commitments), and Paul Wyatt, Director of National Security at the Ministry of Defence. You are both very welcome.

What involvement will the military and the MoD have in achieving the integrated defence review's commitment to develop a "comprehensive national resilience strategy"? What role does the military have in building civil resilience and responding to civil emergencies?

Paul Wyatt: As you have described, the IR has driven a cross-government, Cabinet Office-led review into our national resilience strategy. Defence has in the past played, and will continue to play, a very full part in those conversations. We are strongly linked up with the resilience community. We have staff operating in the crisis and contingencies secretariat on a permanent basis to make sure those linkages are sound and well found. As a result, we will be a full part of contributing to that review.

Major General Charles Stickland: The crucial factor for us here as defence is building on the lessons that we have learned over the last year, which have been fascinating, and the idea that we are in support of the civilian sector. We are probably going to talk about military aid to the civil authorities later on in the questions, but we very much see ourselves as a supporting actor in this activity, led by but catalysing the other government departments that own these problems. That is the only thing I would add.

The Chair: We will indeed come to military aid to the civil authorities later on.

Q184 **Baroness McGregor-Smith:** The integrated review contains a commitment to improving our ability to test and develop our capabilities through contingency planning and regular exercises. How does the military currently make use of exercises in war-gaming, particularly in assuring resilience?

Major General Charles Stickland: We have a long history of assisting Government in planning exercises and war-gaming, to use the phrase in your question. To give a good example, over the course of the last year, we have run war games and rehearsals for the G7, which we are planning for, and D20. We were a very key part of all of the rehearsals and war games for Operation Forth Bridge and the very sad events that are going on on Saturday.

Another really good example is a war-game series that we ran for a really complex cross-government problem of Covid connected to Brexit. "A bad

winter" was probably the best way to describe it. A military team, linked with our colleagues in the Civil Contingencies Secretariat, ran a five-day war game for the seniors of all government departments, to look at their contingency plans. We facilitated the war game and the structure, but we also acted as mentors and advisers as we then went through the after-action reviews of each scenario to draw out what the key lessons for departments were.

I hope that is a really good example and shows that we are actively involved in this process as we go forward. As the Government, in the integrated review, seek to hone their skills, we will again offer that to our colleagues across the Government as a skill set that we have.

Paul Wyatt: We have a wide range of people engaged in that process within the Ministry of Defence. We have our military staff, who are very familiar with both the training and the planning aspects of exercising and war-gaming. I should also mention our Defence Science and Technology Laboratory scientists, who help us with a great deal of the process supporting war-gaming, so the gaming theory and the structuring of games. They have skills that we draw on there.

Baroness McGregor-Smith: In any of the exercises that you have mentioned, did anything particularly surprise you about the outcomes?

Major General Charles Stickland: The really interesting thing is that a plan is not a plan unless it has a timeline associated with it and resources allocated to it. We found, particularly in the Fairlight activity, that some people had thought about contingency, but they had not then got to the next step of saying, "These are going to be my resourced options to deal with contingency". We catalysed that conversation.

The second one I would highlight, which was really interesting, was around interdependencies. We found a much broader cross-government conversation. Departments were potentially planning in isolation and not understanding the interdependencies between their needs for support or their need to support each other. Those were the two things that we drew out of the Fairlight planning. That is a really good example.

Baroness McGregor-Smith: Thinking that through, was there anything you thought the military could improve on, change or do differently as you went through those processes?

Major General Charles Stickland: One area that we identified and very definitely did something about was the MACA process, which we are going to talk about it. If you use the example of what has happened with Covid over the last 14 months or so, we had an established group of people who knew how MACAs worked. That would be BEIS for tanker drivers or the Home Office for various other things. We found in Covid that there were a huge number of other actors who we had not educated as to how the military could help or how you asked the military for help. We recognised that and ran an education programme for those

departments about how you ask for help and what the processes are to make it as slick and speedy as possible.

We also identified that we should not only have our liaison officers in the Civil Contingencies Secretariat. For certain crises, popping a civil servant or a military officer—sometimes the combination of the two is best—into another government department that you are working with increases that agility. They act as a translation mechanism. Those were the two that we definitely learned from that interplay.

The Chair: Major Stickland, would you also say that a plan is not a plan unless it has been exercised?

Major General Charles Stickland: Yes. I deal in crisis all the time. I would prefer to have a resourced plan on the shelf such that, at least if something happened, I had thought about it and gone through the intellectual rigour of resourcing it. You are right: the exercising of it draws out where all the seams lie and makes you come to a better level of fidelity. It also makes you agile in its delivery. I would concur and you are right. To the full delivery, exercising is really important.

Paul Wyatt: There is also something in the power of templating. You can only plan for so many different eventualities. One of the things that we found particularly helpful in the Covid context was that much of the planning we conducted on possible worst-case scenarios around Brexit required relatively modest adjustment to become a reasonable contingency plan for Covid. We are offering the same skills, volumes of people and talent. A plan, even if on the title it says it is for a particular thing, can become applicable to other things. Templating is quite powerful.

The Chair: I had never thought of Brexit as a virulent disease before.

Q185 **Lord Browne of Ladyton:** The question I want to ask is about a very specific exercise capability, which is red-teaming. It follows on neatly from the answers you have given and the questions you have addressed today. Let me draw your attention to the terms of the UK integrated review and its conclusions. On page 97, under the heading "Reform priorities"—I stress the word "priorities", because it lists a relatively small number of them—it says we will need to "foster a culture that encourages more and different kinds of challenge, further developing capabilities such as red-teaming to mitigate the cognitive biases that affect decision-making". From your experience in the MoD, with the military beyond that and further in government, namely what you have recently been doing to help with the response to the Covid-19 pandemic, to what extent do we have a red-teaming capability? Do you have experience of it being deployed? Would normalising it in the way in which they recommend it not mean setting up some dedicated capability to conduct frequent exercises of red-teaming?

Paul Wyatt: We do not have a standing red-teaming capability per se. We have a range of different organisations, individuals and skills that we

can draw on to challenge us under certain circumstances. An example that I would use is that, during the drafting of the SDSR in 2015, which I was intimately involved in, one of the things that we were conscious of was that that document would be read by our adversaries or potential adversaries just as much as by our friends or potential friends. We drew on experts within the research and intelligence communities across government, which spent their days understanding the mindset of those adversaries, to say, "How is this document, as drafted, going to be received? Have we got the pitch and tone correct? It is wonderful if our allies think it is a fantastic document, but are we getting the messages that we are seeking to get across to our adversaries or potential adversaries?" That is an example of taking a tailored approach.

The obvious organisations that we draw on in doing that from a cross-government perspective are our Foreign Office colleagues and the excellent research capability that they have, and our colleagues in the intelligence agencies. Within defence, we have the Development, Concepts and Doctrine Centre, which is very familiar with thinking in that conceptual space and seeking alternative views. It can either itself help us with that or introduce us to others.

Major General Charles Stickland: I have a couple of examples as well. I would also reiterate that this is not something we hold as a capability; it is drawn together around a particular problem. That is probably the right way to go, because you need the right experts to be able to challenge on the right issue. We were asked, for example, by the Government to give Emily Lawson some help when she was running the very successful vaccine programme. We had MoD staff supporting her and Brigadier Phil Prosser in the game. A very small team was just offered to go and just offer some challenge.

In some areas, it was just very useful to expose, "There is a scene there that we need to be thinking about for the future", but also in some ways where the team could offer challenge back to government where they needed greater assistance. We did a similar thing with what we called Operation Broadshare, which was our support into the Caribbean. We used a military team to challenge the Foreign Office on its policy and how it wished to play it in terms of support in Covid.

A final one would be that, as Paul alluded to, we have, as we develop our future capabilities, a series of exercises called planned force testing. We always use Dstl and DCDC, the Development, Concepts and Doctrine Centre, to provide the view of the adversary and also our allies, as we run those simulations and design the force for the future. I hope a couple of other examples give a flavour of how we use it and how we have used it.

Lord Browne of Ladyton: Thank you very much; that is very helpful. If I may, I shall take advantage of having you further just for a very small supplementary to the supplementary. The integrated review team was consistent to the degree that it red-teamed its own process. In the challenge and assurance element of the review, it refers to that. Are

either of you aware of who red-teamed it?

Paul Wyatt: I am not sufficiently familiar with the process. I will be very honest with you and say that, as someone who was very intimately involved in the SDSR in 2015, I was delighted to be less involved in the integrated review this time around.

Major General Charles Stickland: I am afraid I do not know; I am sorry.

Lord Browne of Ladyton: I was just hoping you might, but we can find out.

Q186 **Lord Triesman:** Good morning, gentlemen. The integrated review notes that, in developing resilience capabilities, the Government would be considering quite a significant innovation of a civilian reservist cadre for support in times of crisis. We would like to ask how the military and the MoD might support such a force. Depending on what you have to say, there may be some supplementaries to that.

Paul Wyatt: There are a couple of things to say here. The first is to be entirely honest and say that we do not always find it easy to utilise our reserve forces ourselves. Finding the right people in the right time to do the right jobs is not always straightforward. We are acutely conscious that we need to do better.

Having said that, there is also a real need to be clear what we mean by a reserve body. There are two things that the reserve forces do or can do for us. One is the traditional wartime ability to access volume to make a force larger to deliver a fighting effort. You could say that we used the reserve very much in that context around Afghanistan and Operation Herrick.

The second, also utilised during Operation Herrick and Afghanistan, is to access high-end niche skills that we do not hold or do not hold at the volumes within the force. The medical profession is a really excellent example of this. We probably do not have enough brain surgeries to mean that a high-end brain surgeon is going to remain a high-end brain surgeon. It makes very good sense, therefore, for members of the Defence Medical Services often to be reservists working within the NHS, maintaining very high-end skills, and then joining us to support us under certain circumstances. There is a thing called the Engineer and Logistic Staff Corps that you may also have heard of, which is associated with the 77th Brigade, where we use the reservist structure to engage people with very particular civilian professional skills to build into the system.

The things that I would say are, first, that this is not straightforward; secondly, you need to be really clear what you want to do with your reserve force. It might be about volume and it might be about skills. You probably need to design it slightly differently depending on which it is.

Major General Charles Stickland: There are two lessons that I would draw from Covid. A really interesting thing that we are going to work on

and try to understand better is the use of what we call the regular reserve. They are people who have recently retired. We know that they are suitably qualified. They hold huge experience and skills. How do you draw those back in quickly? That is an interesting concept to explore from a civilian perspective, whether that is a retired civil servant or a retired nurse or doctor, for example, in resilience. There is a conversation to be had and lessons we could share there as this development continues.

The other one I would add to Paul's point about the use of reserves is that of speed and agility. That is another area where we have greater authority legally over our reserves than a civilian body would. But still, the model we used during Covid was that regulars went in first because they could go at very short notice. If we have to mobilise reservists in order to then take over from them, it takes a little bit of time to relieve the regular force to go back. At that point, the MACA would finish and we would hand over to a contractor or the job would be done. You could not have reservists on standby because it does not work from their mobilisation criteria or the employer that you are drawing that person from. Those are a couple of exposés as to how we might help the civilian sector but also how tricky it can be.

Lord Triesman: Could I just press this a little further? I understand the points that are being made about the reserve that is available to the military force in general, but we have heard quite a lot of evidence about the extent to which integrating with other civilians becomes absolutely critical on occasions such as when there is flooding, when there are going to be people with extremely important knowledge on the ground who will need to co-operate with whatever military assistance is being provided.

Major General, correct me if you think I am getting this wrong. You have been saying that it is easier to deploy the forces over which you have direct command because you can do it quickly and tell them what to do. A wider sense of what might be in reserve in extremis may very well mean that you are talking to civilians who do not have that essential sense of discipline. They may have it personally, but they do not have it in a formal sense. It might be a bit more like herding cats; I do not know. How can you assist that kind of integration of all the forces that might be available? Major risk affects and becomes a systemic risk to whole populations.

Major General Charles Stickland: I will try to answer your question, but I will do it by looking at the current structure. As we are talking about, this idea of a civilian reserve is a future idea. I can reassure you somewhat as to the local resilience forums that exist across the nation, whether in the devolveds or in England. They are done slightly differently, but fundamentally, at the local level, a local resilience forum has a lead. That could be a policeman or somebody from another service. Essentially, it sits as a hub to glue together the emergency resources, but also people from the third sector, charities or wherever, who may play through.

I will be honest with you again. Those resilience forums are at different levels of maturity. If they exist in an area where there is flooding on an annual basis, they are very well worked up. They know how the processes and procedures work, and they can galvanise the community to best effect. Others, where they have not had to deal with those sorts of things, are less so. There is a structure by which you can harness the expertise of all the emergency services as we go through.

One little example that we found very useful during Covid was that we popped additional planning resource into local resilience forums at their request and just gave a little more structure, because of the enormity of the Covid challenge. Just by putting a little bit of spine into that, we allowed the civilian control and the civilian authority to play through. All the way through, we did the classic thing of understanding, supporting, and enabling that architecture to be rolled out. There are already structures to build on and there are some really powerful lessons that we can take forward in terms of galvanising civilian authorities.

Paul Wyatt: The point has been made by implication, but it is worth just drawing it out explicitly. One of the things that the reserves absolutely do for us is, because they have a broad regional footprint, in circumstances like those Charlie describes, we are able to mobilise people in the field who understand the local environment and have pre-existing relationships. We are better at being supportive because we are not parachuting people in from far away. We are helping to deliver local solutions. That is a really important part of our approach to using reserves.

Lord Triesman: It really is being a supporting actor rather than being directive, although you would probably get a quicker result if you were directive.

Paul Wyatt: It would perhaps be quicker but we are not necessarily convinced it would be better. We are very clear that our job is to help the experts thrive, not to seek to become experts in everything.

Q187 **Lord Rees of Ludlow:** This is really just an extension of the previous question. How might the Army's experience of responding to the current pandemic influence its future involvement in other civil emergencies? Perhaps I could mention two specific things. We had a quote from the Commons Defence Select Committee's report, which said, "We believe earlier use could have been made of defence's unique capabilities and skills, notably in the areas of strategic planning and crisis management." It added, "The Government must ensure that defence is consulted as early as possible in future such scenarios and that other government departments are fully aware of the range of capabilities defence can offer". The second point is that, clearly, one lesson of the pandemic is that the most effective interventions and organisations have been those at a local level, such as the vaccination programme. To what extent can the Army, which is clearly in principle centralised, localise among the devolved Administrations and the cities? You have partly answered that by talking about the resilience fora, but I just wonder if either of you

would like to expand on that point.

Paul Wyatt: In terms of what is next after Covid for military support going forward, we have alluded to it a little but it is probably worth highlighting. We probably went into Covid initially thinking that the thing that we would do most would be drawing on the scale of the Army and the Armed Forces to assist our civil colleagues. While we were up at 7,000 to 10,000 at times in support of this crisis, the reality is that we probably added most value around our ability to support with the stuff that Charlie has mentioned already, such as planning and adding functions that are not particularly glamorous, like a chief-of-staff-type function, to organisations that know what they are doing but that need the ability not to have to worry about the day-to-day running of governance and systems during a crisis. We will certainly look to encapsulate that in our offer far better going forward.

That walks into the next part of this, which is about what we can do in terms of talking about what the Army and the Armed Forces can do into the future. We need to be better at describing those softer supporting functions that we can provide, because, if anything, those were probably the things that really made most of the difference.

Major General Charles Stickland: I used a bit of a bumper sticker. We very definitely took an approach, agreed by the Secretary of State and CDS, that we were going to understand, support, enable and catalyse. That was the way we approached our interplay into this crisis. Indeed, that is very much how we approach many of the areas where we support the civilian authorities. A military or defence footprint putting its size 12 into the problem straightaway is really unhelpful many times, because we do not understand the nuances or the expert areas of some of the areas we walk into. It is not our business. That is why this idea of enabling and supporting is really powerful. That really underlines what Paul has said.

On the local side, you heard me talk of the local resilience fora. It is interesting, because a lot of this was not one size fits all. There was a genuine conversation as we started to understand, whether it was testing or vaccinations, how this was going to be done by the Government. We then had to respond and say, "How should our network spread out to support that?" We ideally, as Paul said, tried to use groupings that were local to the problem. It was not always achievable but, interestingly, the military has an agility in certain areas where it being able to be centrally co-ordinated is of huge value.

For example, with the vaccination team, locally delivered, we had what we called vaccination quick response teams. At one stage, we had 88 of these teams able to move around the country to a point of need. If we found that either there was a population that was not on target or we had an opportunity to be seized, the Department of Health and Social Care could say, "Can you have teams there, please, for an extra five days to surge and bring us back on target?" That was something that the local response structure could not deliver, so we were able to enhance it by

going to the point of need. Sometimes our agility and centralisation are of help to that local level. I hope that again paints a slightly broader picture.

Lord Rees of Ludlow: Just to follow up, to what extent do you need more in-house expertise so that you know right from the start who the key people in the different regions are?

Major General Charles Stickland: Every year's worth of resilience work and Covid proved that the Standing Joint Command (UK) based in Aldershot, and its joint military command network across the UK, already has liaison officers and commanders who link in with the local community. We were really reassured that we could just enhance and grow those persistent relationships that they have. We called it our neural network. We reinforced it in areas but we had a building block of the persistent relationship. Our instinct is that we do not need to enhance that any further. We have the right balance of resource associated with it, because it was so successful, to scale up and down.

Paul Wyatt: The reality here is that every crisis is a bit different and dynamic. Within defence, we have an approach where we have a crisis spine. Because we are a largely international and/or UKCT-facing organisation, we have candidate partners that we think we are going to draw together for the crisis spine. We did not think that our people who were experts in safety and resilience were necessarily going to be the candidate partners for our crisis spine.

In the case of a global pandemic, we did not need the international policy and strategy team for country X or country Y. We needed our people who really understood health, safety and security to be the partners. The first lines of your manual almost need to be, "You are probably going to talk to some different people from all those people you think you are going to talk to". We need to not concrete in our interactions with the rest of government too much. We need to recognise that, just as we have to flex, government will flex as the crisis comes around.

Q188 **Baroness McGregor-Smith:** Just to continue with this question, I am interested in understanding what lessons the government departments that you interacted with could learn from this emergency and what they would change going forward when responding to any civil emergency. I am particularly interested in your comments on agility and centralisation. What have different government departments that have had to deal with something new learned from you during the pandemic?

Major General Charles Stickland: That is a really interesting question; we are both pausing. I will start by trying to give you a sense. This is a comment rather than an answer to your question, but please do not think me evasive. What needs to be centralised and what needs to be decentralised? There are benefits to both.

A really good example would be some work that we supported Public Health England with to do with the rollout of ventilators. We centralised the importation of ventilators and then ran a hub-and-spoke activity to

the point of need. Centralisation was probably the right way to deal with that particular problem. The vaccine rollout and energising the network that already existed from GP to pharmacy to local health areas was decentralised. One of the areas I suspect other government departments will look at is that debate about when to centralise and centrally control and when to federate and decentralise.

Paul Wyatt: At risk of being the MoD person talking about mission command in a civil context, which is probably not a terribly good idea, there is something about mission command. To be clear about what I mean, we are comfortable in defence with being in command but not in control. You set out an intent; you set out aims; you set out objectives. You give those who are then in control insight into what you are trying to achieve, and you trust them to get on with it. Sometimes in government, we tend to think in terms of either being in control or out of control. There is probably something in the Covid experience where we all collectively need to borrow something from our Armed Forces colleagues, which is being better at understanding that we can put a controlling framework in place and then allowing others to succeed at the local level.

Baroness McGregor-Smith: It is going to be quite interesting to think about how government departments structure themselves going forwards to deal with any future emergencies as they now have more experience post this pandemic. I am particularly interested in the hub-and-spoke point about who does what on the ground as opposed to who does anything centrally.

Q189 **Lord Clement-Jones:** Good morning. You have both given some extremely interesting and important examples of how the military aid to the civil authorities system works. We keep coming back, as you touched on earlier, General, to the understanding of the system in other government departments, let alone at a local level. Is there sufficient understanding? Has that changed as a result of the pandemic? If there is insufficient understanding, how do we combat that?

Paul Wyatt: We need to guard against complacency here. It would be foolish of me to say, "Of course there is sufficient understanding". It draws back to Charlie's point about the exercises and work we did to essentially move from what you might describe as our frequent shoppers to those who are not necessarily used to interacting with us. We are in a pretty good place right now but we ought not be complacent. We need to recognise that that is going to be an ongoing requirement.

Major General Charles Stickland: Building on Paul's point, the first answer to your question is that we have a very strong relationship with the Civil Contingencies Secretariat and permanent liaison officers within that structure linked to ourselves in the MoD and the Headquarters Standing Joint Command. We will now continue that education process, either through liaison officers or by linking to the people who, to use Paul's phrase, were not initially frequent shoppers but now we believe we have a relationship with. We will make sure that there is a constant drumbeat of that education, because people change over and

circumstances change. To overcome that complacency, we can only invest in that education. That is how we are going to have to play it as we move through into 2022.

Paul Wyatt: Some of this talks back to the point that I made about the importance of templating. An abstract conversation about what a battalion from the Army can do for you can be quite a difficult conversation to have with a civil department or a local authority for very understandable reasons. Having the ability to provide examples of the support that we have provided, in Covid, previously or within our standing plans, is important to make this real.

Lord Clement-Jones: I absolutely take what you have said, and no doubt you hand out loyalty cards as part of the process. You get top billing in terms of building resilience and the resilience process. You are very much part of that in MACA in the integrated review. The question is whether the resource will follow the ambition.

Major General Charles Stickland: As you would expect, through the course of last year, we did a number of lessons-identified sessions to try to challenge ourselves on where we were wrong and where we were right. We found that the MACA process was absolutely fit for purpose because it absolutely asked some really fundamental questions of other government departments: "Can anybody else do this? How long is it for? What effect are you trying to achieve?" The effect thing was the really key part of the jigsaw: "Do not just ask for a soldier. Do not ask for a sailor. What are you trying to do? Defence will have a think and a conversation about how we might be able to deliver your effect".

From my perspective, it would be wrong to try to change that or have other things at readiness to try to deliver this. We support resilience, but in terms of core defence tasks we are using a defence resource that is waiting to do other things. That is why this process of a negotiation, an understanding and an action for a period of time until a contractual or other departmental solution can be put into play is really important. Otherwise, defence gets fixed. That is another really important thing as to why the MACA process was so successful and should just be maintained as it is.

Paul Wyatt: I very strongly agree with that. We need to make sure that we are on the right side of the line between resilience and reliance. To get into a situation in which we are relied upon too heavily would be bad both for civil organisations and for us. There are examples in which we absolutely plan for the nation to be reliant on the services we provide; those are built into our plans and full structure is generated. It is held to one side and not available for deployment as a result. The most obvious example I can think of off the top of my head on that is explosive ordnance disposal outside the M25. We would not propose to take those RLC and Royal Engineer personnel and deploy them on operations, even in the most acute of circumstances, because their duty and responsibility is to provide that support to the nation. We would not wish to see too many examples of that.

Lord Clement-Jones: We get the message that we should not turn you into a defence and civil contingencies force.

Major General Charles Stickland: There are nods of heads from this end.

Q190 **Lord Mair:** I would like to ask you about the roles of science, technology and innovation in risk assessment and risk planning for the MoD. Technology is clearly creating far greater opportunities and threats to the UK. It poses risks as advances in technology become available to adversaries who may seek to use them against us. In the most recent spending review, the MoD was the only department to receive a multi-year settlement. The MoD has multiple teams devoted to blue-sky scientific and technological research. It publishes its *Global Strategic Trends* document*,* describing a future context for defence and security right out to 2050.

Is the military more effective than other areas of government at embedding long-term thinking, using science and technology and investing against high-impact, low-probability opportunities and risks? If that is the case, what lessons could be learned from this and applied to other areas of government?

Paul Wyatt: One probably starts from the nature of the imperative. We seek to think from a long-term perspective, use tools and techniques and draw on organisations such as Dstl and the Development, Concepts, and Doctrine Centre when doing our planning. There is a very straightforward functional imperative around that. When it takes you many years to buy a frigate, a destroyer or an aircraft carrier, it is necessary to think in future terms, from a purely pragmatic capability-planning and investment perspective. We need to guard a little against convincing ourselves that we are necessarily any better than others at thinking about the future. We have a good crack at it and we take it very seriously, but this is extremely difficult stuff.

We do work really closely across government. The *Global Strategic Trends* document that DCDC publishes is published for Government, not for defence, and is drawn on by other government departments. We work with the Government Office for Science, and it directs our work in part, thinking about some of the future thinking as well. It obviously supports the Prime Minister in that.

We work hard at this. I would hesitate to say that we were necessarily better than anybody else. We are part of a whole-government system thinking about the future. We absolutely contribute to the risk assessment process of the civil risk registers that we have. We seek to contribute, but I would not necessarily seek to draw myself above them.

Lord Mair: Can I drill down a little further? The MoD launched in 2016 its innovation initiative. That was stated to fundamentally change how it goes about its business. Has it fundamentally changed the way the MoD goes about its business?

Paul Wyatt: I am speaking a bit off my portfolio, so I will give you a personal perspective rather than necessarily what my colleagues in the innovation environment would say themselves. "Fundamentally" is a pretty high bar, and we are not there yet. Innovation, the imperative to innovate and the need to challenge bureaucracy and find new ways of doing things are absolutely taking root within the department. We recognise that we need to be able to be agile and evolve. It is a work in progress. Having been involved in financial allocation, capability oversight and acquisition at times in my career, I see an organisation that looks more agile to me than the one that I was engaged with some years ago.

Major General Charles Stickland: I would look at it from a practical perspective of how we seek to think about using the military instrument of power. Out of that work that started in 2016, there are some really interesting and important programmes in terms of the exploitation of information, and particularly a programme called the multi-domain integration change programme. That is seeking to ensure that we understand not just how air, land and maritime work, but how you use cyber and how you use space so that we have five domains.

We have always talked about being a joint force; the next trick that this thought process brings you is that you have to be an integrated force such that you are able to exploit information in a different way and capitalise on it as you go forward. I would reflect from a personal perspective, seeing some of the things in my own service. There are areas where we are absolutely looking to fail fast, fail often and innovate, to put technology demonstrators into the field early and learn from them as pilots, rather than having large procurement processes. That is different. The multi-domain integration change programme is another important bedrock for a lot of that thinking as we go forward. That is a personal view as opposed to an expert view, but I hope that illuminates.

Lord Mair: The purpose of the Innovation and Research InSight Unit that the MoD set up was clearly to identify the threats and opportunities presented by emerging technologies. By those we mean artificial intelligence, robotics and cyber warfare. The purpose, as I understand it, was to make recommendations to senior decision-makers on strategy, and particularly on investment priorities. How do you prioritise investment against low-probability, high-impact risks versus investment for the more immediate requirements? In other words, it is the problem of spending money on something that might never happen and the question of spending money on low-probability, high-impact risks. I just want to ask either of you about the role of science and technology in trying to address these questions, particularly in the context of the rapidly moving areas of AI, robotics and cyber warfare.

Paul Wyatt: This one takes us pretty firmly out of our normal lane. Perhaps I will relate this to a part of the system that I am engaged with and familiar with, which is around counter-chemical and biological capabilities. There is clearly a range of protective measures that need to put in place.

Inevitably, this is difficult. It is about trying to make sensible and balanced investment decisions. You try to understand not just risk but also threat from a military perspective. That is the important additional dimension that we try to bring into play. The most sophisticated and complicated potential threat vector with no observable intent to use it, we probably ought not to be spending a great deal of money on. Ultimately speaking, this is probably the kind of question that we should address to our colleagues in the financial and military capability-planning area, because it is their meat and drink.

Major General Charles Stickland: From working with Paul and looking from an operations perspective into the work that we did with both the IR and particularly our part of the Defence Command Paper, we can be comfortable, if you look at the areas of investment both in defensive and offensive cyber as an example. That has very definitely been an area where we have recognised where threats lie and how we invest to mitigate those threats as we go forward. In trying to give an example where thought processes have changed based on the needs to innovate and recognise emergent risk and threat, that is a very good example from the Defence Command Paper of how defence has responded in that sense.

The final point I would make, which links again to our day job, is that that cannot be seen in isolation as a defence perspective. That is a national security component, and therefore we are linked very heavily with our agency colleagues into those two particular areas.

Lord Mair: Without going into specific details, would you say that the trends in artificial intelligence, cyber warfare and robotics have fundamentally changed the thinking about low-probability, high-impact risks? Might you now be contemplating risks that you would not have been contemplating a few years ago?

Major General Charles Stickland: Yes, in part. There has to be a prioritisation, as Paul has described, about capability and intent. We cannot mitigate for everything. A really good example would be absolutely considering that home and away have merged. We recognise that, with the ubiquity of information, you cannot think in terms of a homeland base, where you project things from or you protect, and an away game. We absolutely recognise that, essentially, they are seamless. We are thinking now, as you would expect, as to how best we command and control military resource accepting that home and away have merged. That is another really good example of how our thinking is changing in relation to both future threat and evolving threat.

Q191 **Lord Robertson of Port Ellen:** On that last point on the Ministry of Defence, we had a very important individual who was called AUS(H&O), which is what he was referred to in meetings; he was the Assistant Under Secretary (Home and Overseas). That seemed to me to include pretty well everything. The concept of merging home and overseas is not new. He is now called Director General, Operations, which is a bit more sensible.

I wanted to ask you about the resilience of the military itself. In looking at all of these issues, you cannot help thinking, "What is the capacity of our military?" If you were involved in major operations—you are not in major operations as it stands at the present moment—or there was a complete blackout or a major cyberattack, how resilient is our military today?

Paul Wyatt: Starting from the end of that question, around the catastrophic or unforeseen events such as a blackout, the approach that we have to resilience is probably best characterised as being by establishment and by organisation. There is a certain bottom-up nature to it. One of the things that I know that my colleagues within defence resilience are looking at is the balance between bottom-up and top-down, and whether there needs to be more in terms of shape and framework to the resilience effort.

That is not to say I do not think that we have a very good set of resilience plans. As someone who currently works in Main Building in London but has previously worked in Northwood in our Permanent Joint Headquarters, I am very familiar with the fact that all of our operational organisations that have liabilities for command and control have very clear contingency plans, alternate sites and all the things that you would expect to allow them to continue to exercise their responsibilities under loss of services.

There is a plan; there are plans. The thing that we probably need to do is to draw them together a little bit more from a central perspective.

Major General Charles Stickland: I would agree completely, because not to answer the question that way would be a little bit overoptimistic. We absolutely need to look at the lessons we have identified.

The other piece that I would pick up on, which you will remember from your time around the department, is that we continue to operate resilience for government from the Ministry of Defence. We still regularly rehearse our ability to provide services for continuity of government and alternative sites. It is a slightly more niche area, but it is worth reassuring that all of those structures that are in place are regularly rehearsed. The operational order that links them all together has recently been scrubbed and reviewed. That is another part of the resilience programme that I keep a close eye on.

Lord Robertson of Port Ellen: That is reassuring. Can I just take you beyond that? We are one of the few countries, in Europe certainly, and maybe even wider, that does not have a civilian force. We have a situation whereby a panic comes along, whether it be the pandemic, the Olympic Games or foot and mouth, and eventually the military is brought in because it has that capability. In most other countries, there is a civilian network or an emergency system. The integrated review starts moving in that direction with some of the points that we made earlier on about the volunteer force and reserve forces. Should we look at a model whereby there is a civilian force that would be the first line before we had

to bring in the capability that the military provided?

Paul Wyatt: It draws back to the point around the importance of the maintenance of expertise and understanding. Charlie has talked already about the fact that we had to walk into these situations from a very humble perspective, recognising that we did not understand the problem. Therefore, while there is a very important emphasis that must be placed on civil organisations having their own resilience plans and capacities, I worry that an additional generic resilience capability would not necessarily be the way to go. It is very important to have good resilience plans and capabilities, but something that looked a bit like us, in terms of being enthusiastic but not knowledgeable, might not necessarily add value.

Major General Charles Stickland: I would just re-emphasise the point that Paul made earlier on about the reserves and these reserve forces. You have to think very carefully about its design and what it is for. From a perspective of essentially having things at readiness, the idea of people sitting about without a specific function does not sit well. A really interesting conversation will evolve out of Covid as to what the design of that reserve force might be and what its utility is. Those are really important questions to tease through from the outset.

We also recognise that we must be careful not to overinterpret what Covid has told us. It was a very specific set of problem sets. We should bring out the generic lessons of resilience from it, such as that MACA works, the local resilience fora work and liaison officers work. We do not want to, to a certain degree, structure ourselves for just one event rather than multiple events.

Lord Robertson of Port Ellen: Maybe I am asking you the wrong question because you will inevitably be defensive on this, and I can understand that. It seems to me, through all of the discussions we have had on this committee, that it boils down to the lack of co-ordination that there is in terms of risk management between departments and organisations. For example, at our last evidence session, the director of Logistics UK—the organisation that used to be called the Freight Transport Association—ie the whole of road transport, had not heard about the national risk register and had not, before the pandemic, been consulted by government about what might happen in an emergency. Is there not a missing link here? Perhaps there should be a degree of centralisation when we look at the civilian side of risk management?

Paul Wyatt: That very much is going to be the question set that is going to be looked at in the context of the review that we talked about in the first set of questions. There obviously is civilian crisis infrastructure in the form of the Civil Contingencies Secretariat. In part, the question is the depth and breadth of that organisation. I am sure the review will look at what that organisation does and should do, and how it might evolve into the future.

Lord Robertson of Port Ellen: I do not know whether you, Lord

Chairman, want to ask the usual "Desert Island Discs" question at the end.

Q192 **The Chair:** No, I do not think so. As military personnel, they have to say that everything is going swimmingly. I want to combine one question from Lord Robertson with another from Lord Browne. In view of the issues of whether the military itself is resilient, do you exercise the possibility that there might be a prolonged electricity blackout? Do you have a red team to work out what would happen in those circumstances?

Paul Wyatt: Against that specific contingency, the answer is no. Against a generic contingency around loss of communications, power, et cetera, do my colleagues within the resilience community make sure they understand what the plans are and make sure that they are exercised at an establishment level? The answer to that is yes. We have resilience plans; they are exercised.

Major General Charles Stickland: To answer your point on the red-teaming side of things, that relates back to Paul's point. Drawing all those resilience plans together and understanding the totality of defence's risk to a certain degree is something I know that the head of defence resilience is actively looking at in relation to a blackout. That is one of the conversations we are having with the Cabinet Office. To reassure, that area is absolutely on the radar.

The Chair: That at least is good. Thank you very much indeed. Thank you to our witnesses for all of your answers, which have been extremely interesting and useful. I know they will form an important part of our report. Thank you to our staff, as ever.