

Public Accounts Committee

Oral evidence: [Defence Capabilities and The Equipment Plan 2019-2029](#), HC 247

Thursday 28 May 2020

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Members present: Meg Hillier (Chair); Gareth Bacon; Sir Geoffrey Clifton-Brown; Peter Grant; Gagan Mohindra; James Wild.

Liaison Committee member also present: Sir Bernard Jenkin (Chair).

Gareth Davies, Comptroller & Auditor General, Adrian Jenner, Director of Parliamentary Relations, NAO, Jeremy Lonsdale, NAO Director, and Marius Gallaher, Alternate Treasury Officer of Accounts, HM Treasury, were in attendance.

Questions 1-83

Witnesses

I: Sir Stephen Lovegrove, Permanent Secretary, Ministry of Defence, Charlie Pate, Director General Finance, Ministry of Defence; Sir Simon Bollom, Chief Executive of Defence Equipment and Support, Ministry of Defence, Air Marshal Richard Knighton, Deputy Chief of the Defence Staff, and Air Commodore David Bradshaw, Assistant Chief of Staff, Combat Air.



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Report by the Comptroller and Auditor General

The Equipment Plan 2019 to 2029 (HC 111)

Examination of witnesses

Witnesses: Sir Simon Bollom, Air Commodore Bradshaw, Air Marshal Knighton, Sir Stephen Lovegrove and Charlie Pate.

Chair: Welcome to the Public Accounts Committee on Thursday 28 May 2020. Today, we are looking at the issue of expenditure on the defence Equipment Plan, and linking it with the discussion about our defence capabilities, on the back of two excellent National Audit Office Reports. These are two issues that the Committee has looked at regularly—certainly in the decade that I have been involved. It is the third straight year that the National Audit Office has concluded that the Equipment Plan is unaffordable. We have looked at different capabilities at different times, but this brings it together. The NAO reports that most capabilities are entering the service months or even years late. This is a regular issue for us and the National Audit Office. Today, although we will obviously be looking at those Reports, we want to ask you some wider questions about how we plan defence. Obviously, covid-19 will have an impact, and we will come to that later.

I would like to introduce our witnesses. We have Sir Stephen Lovegrove, who is the permanent secretary at the Ministry of Defence; Charlie Pate, who is the director general finance at the Ministry of Defence; Sir Simon Bollom, the chief executive of defence equipment and support at the MoD; Air Marshal Richard Knighton, who is the deputy chief of the defence staff and particularly deals with financial and military capability; and Air Commodore David Bradshaw, the assistant chief of staff capability delivery on Combat Air particularly.

We have a big job to get through today, in the light of various issues arising. Before we go into the main session, I just want to thank you, Stephen Lovegrove, for the letters that you sent us as permanent secretary. We will come to the one about the Equipment Plan scheduling and costings later. I want to ask you about the review into Project Shepherd and the delays that that has undertaken. You have written to me saying that you are unable to give me further information about the timings; that was only yesterday. I am very puzzled, because that was started at the end of 2018. We are now in mid-2020. What is taking so long?

Sir Stephen Lovegrove: I wish it had been quicker, candidly. It has been a very, very complex process, involving a number of different witnesses, because obviously the programming question has been in train for many years. The specific issue that is holding us up a bit at the moment is Maxwellisation, as it is colloquially known: a number of the statements

referring to people who have been involved in the programme have to be sent to them and checked for objections, and that has taken a long time. Obviously, Maxwellisation has been a problem in the publication of any number of reports in the past, most notably the Chilcot report. That is effectively what is holding it up at the moment.

I think we are very, very close to the end of this process. The chair of the audit committee is looking at the final document pretty much as we speak, and we hope to get it to you very shortly. As you know, we have been keeping the NAO very much up to date with the draft findings. I am hopeful that there will not be any remote surprises in that. I regret that it has taken so long. It has been inevitable, unfortunately.

Q1 **Chair:** It is a real disappointment for something that, on the face of it, should have been a simpler process. There should have been an acknowledgement earlier that there had been some errors. Let us leave it there. We would be grateful if you can write to me immediately when it is available so that we can have a look at it, and let us know what is able to be in the public domain and what is not. We would still like to see the papers, even if it is on a private basis. There must be something that you will produce publicly, presumably, as a result of this.

Sir Stephen Lovegrove: Yes, of course. We have already made a number of changes to the ways in which we oversee projects like that and, most notably, the ways in which we deal with whistleblowing complaints as well, so it has not been complete stasis during the process.

Q2 **Chair:** I would hope so, because an individual managed to raise some important concerns, and it is important that anyone who is seeking to ensure that defence procurement and delivery is done and reported better is listened to. I think you would agree, Sir Stephen, that it has not always run so smoothly and there is plenty of room for improvement.

Let me move on to the general issues relating to the funding shortfall, which we as a Committee and the NAO repeatedly come back to. To make it even more complicated for us, the method for estimating the funding shortfall changes every year. Why is that? Is it to hide something, or is it to make life more difficult for yourself? Could you explain what is going on?

Sir Stephen Lovegrove: It is certainly not to hide anything. Whether or not we make life more difficult for ourselves is an interesting question, and sometimes I think we probably do. We have some thoughts about trying to get this on an absolutely durable, sustainable and understandable basis, which Mr Pate will talk about. There is no dispute or question, and there has not been for the past three or four years that I have been doing this review, but that the defence budget is out of balance. We have not argued at all with the PAC or the NAO when they have said that in the past few years. The last time that I came before the Committee to answer on this particular set of questions, I quoted the then Chancellor, who said that a comprehensive consideration of defence spending was due next year, so that would have been 2019. That, I am afraid, is what we need. There are



broadly three ways of getting the defence budget into balance, and ideally we would have all three. No. 1 is ongoing efforts to—

- Q3 **Chair:** We are going to come to that a little later. Perhaps I should go to Charlie Pate. You have to establish a consistent approach to make life easier for yourself. There needs to be a defence review and everyone is waiting for it—we will come to that later—but when will there be a consistent approach that will enable us and you to make better comparisons and better feed into that review, Mr Pate?

Charlie Pate: We have been refining our approach, and we do now have a basis for setting out the plan. We have had to refine our approach both to the budgets and to the projected costings in Equipment Plan 19. We have had to take a prudent approach to the available budget, setting the most likely costs against that, and we need to do that to ensure that we do not commit beyond that available budget. That is why we have introduced those commitment levels, and I think that was the right thing to do to ensure that the Department does not go beyond the available budget. We have put those in place for this plan and we have kept them in place going into the new financial year—given that lack of a long-term funding settlement that Sir Stephen mentioned, we have needed to put those in. Equally, we have continued to refine our understanding of the costs of the programme. The NAO Report picks up on efficiencies and adjustments for realism; it is right that we have put those in and made those as realistic as possible.

- Q4 **Chair:** Can I just chip in there? You say they are as realistic as possible; we have constantly raised, with the support of the NAO's numbers, concerns that those efficiency savings are not really achievable. Efficiency savings have become slightly weasel words in Whitehall. You have just given a fairly confident interjection that you are confident that those efficiency savings are realistic; are they this time, really? Can you give us evidence—some examples of a couple of those efficiency savings and how you are going to make sure that they get delivered?

Charlie Pate: Let me be clear. There are two sets of efficiency savings in the plan: the £7.5 billion against project efficiencies; and then we have assumed a further £4.7 billion of efficiencies—and I think that is where there is a question. We do recognise that there is uncertainty in that, and that is part of our range. For me, rather than focusing on an exact spot on a 10-year plan, I think it is more helpful to look at the potential range of costs. Frankly, that is where we are in a similar position to where we were last year.

Just on efficiencies, in that £4.7 billion of further efficiencies that we have assumed, we are working all the time to refine those plans. The DE&S has got an awful lot. A couple there are around new support arrangements for ships, submarines and naval bases. It also has a project to improve the management of general munitions and take savings out of that. We have taken that through the investment process over the past few months and seen savings come out of those. So it is a continual process that we see, and it gives clarity to that £4.7 billion.



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Q5 **Chair:** Are Air Command and Joint Forces Command achieving their planned savings, from your point of view, Mr Pate?

Charlie Pate: It is definitely a big challenge for them, but as of '19-20 we have delivered within our departmental budget. I think the Strategic Command and Air Command numbers reflect the different make-up of their budgets. What we do not have reflected in the overall efficiencies for Strategic Command are the Defence Digital efficiencies, and they similarly are working with their suppliers and working through a lot of legacy IT programmes, and we expect considerable savings to come out of those over the coming years. On both of those there are plans; they need to mature and this is a 10-year frame. But I come back to the fact that we did deliver within budget for '19-20, which gives me some confidence that the adjustments we made in the equipment plan last year are on the right track.

Q6 **Chair:** And if they are not, and you do not manage to achieve them, what will be the consequence?

Charlie Pate: The plan sets out the potential range and that £13 billion of risk that we believe there is in the overall costed plan, and that will be on the rest of the Defence budget. It is very difficult when the equipment plan was 40% of that, as the majority of the rest of the budget is people, infrastructure and activity, and all of those are difficult in different ways—I know that the Committee has been looking into all those areas. But that is where we would have to balance. In our delegated model through to Command, the point is that they run that balancing against the overall defence plan that Ministers sign up, but it is for the Commands to manage within their delegated budget, which, as you know, are bigger than those of many individual Whitehall Departments.

Q7 **Chair:** Sir Stephen, one of the challenges for you, as permanent secretary, is that if you have the Commands obviously responsible for certain elements of this, you have to have some control at the centre, but if some of these efficiency savings are not achieved, decisions have to be made about which projects' funding should be cut. Obviously, we will come back to the detail of the actual defence review, but in the short term, without a review, how will you manage those decisions in the Department, given that some of them would have to be made quite quickly? It is hard to make a decision to completely axe something without the comfort of a full-blown review and the political leadership behind it.

Sir Stephen Lovegrove: That is true. What we typically seek to do is to look at some of the less strategic capabilities, which we are capable of making decisions on outside of a full-blown, multi-year strategic review, and ask difficult questions of those for the Commands. Ultimately, we believe in the delegated model and would like the Commands to make their own decisions. Sometimes those are cut; more often, to be honest, they are deferred and descoped. As you know very well, Chair, deferring programmes in order to give Ministers proper choices within a strategic context has the result of pushing the bow wave of the unbalanced budget



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out a year or two, making it a bit bigger. That is one of the reasons why the imbalance in the budget looks to be a bit bigger every year.

Obviously, there are other techniques that we use. There is reference in the Report to the commitment restrictions that we have placed on the Commands, which gives me confidence, as the accounting officer, that if push comes to shove, we will not breach our budgets. Again, that has the effect of instructing the TLBs—the top-level budget holders of the frontline Commands—to deal with long-term projects in short-term chunks of approval, which is not ideal.

Q8 James Wild: Is it realistic to assume that Joint Forces Command—Strategic Command—and Air Command can deliver 100% efficiencies? I should declare my interest as a former special adviser in the Ministry of Defence. Is there any record of any of the TLBs delivering 100% of their efficiencies in previous years?

Sir Stephen Lovegrove: I will ask Charlie Pate to answer that question. He is a bit closer to that detail.

Charlie Pate: Both commands, as I was saying earlier, have different forms of their portfolios, as you will have understood. Both of them are actually made up of a lot of relatively small projects, and it is to those areas that they tend to go to make savings and find efficiencies.

To answer your question, no, we have not delivered our efficiencies over the previous years. That has been part of the problem that we have had. The efficiencies set in SDSR '15 did not provide investment or give us time, frankly, to make the savings that were put into the settlement. Now that we are further on, all the commands have their own efficiency plans, as well as the head office plans. The finance directors of Strategic Command and Air Command have assured me that they have plans in place to find those savings. Again, I come back to the fact that we lived within budget last year.

Q9 James Wild: How are they actually held to account? Sir Stephen talked about the delegated model and giving the responsibility to the TLBs to deliver, yet when they do not it comes back to head office as a problem, which then hits other parts of the defence budget. What is the actual accountability for the heads of each of those services to deliver, and what are the consequences if they fail?

Charlie Pate: Sir Stephen delegates the budgets through to the chiefs of the frontline Commands. It is their personal responsibility to live within those budgets, which are agreed each year. Their finance directors are their principal financial advisers, and they have a dual reporting line into me. I hold the finance directors to account, and Sir Stephen, with the Chief of the Defence Staff, meets quarterly on a formal basis with the chiefs of staff—

Chair: Mr Pate, you are describing a formal process. I would expect that you, as a finance director, would have that in place. That is not unusual. Mr Wild, do you want to press the point about the consequences?



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Q10 **James Wild:** I remember from my time that the efficiency savings were not hit, and consequences did not seem to follow. I wondered whether, since my time in the Department three years ago, new mechanisms and new accountability have been put in place for the senior individuals who are responsible for these targets?

Charlie Pate: We have much clearer management information now that goes ultimately to the defence board and the Secretary of State, and shows individually how TLBs are managing, both in-year and on the longer-term planning basis. It is on that that they are held to account through the year. Each finance director has, as their No. 1 objective, to manage within the budget that they are provided with, and there are consequences for their end-of-year appraisals if they do not manage that. I have to say that for the last year, each TLB managed within the 1% forecasting restriction that we have on them.

Sir Stephen Lovegrove: We have, in the last couple of years, cut delegations to the frontline commands when they have either breached their targets or breached the processes by which they are putting forward proposals. It is not a system without—

Q11 **Chair:** Can you give us a precise example of where you have reduced the freedom for a command?

Sir Stephen Lovegrove: I can, although I think I would prefer to do that in private if that is all right, Chair.

Chair: In that case we will pick up that thread after the meeting.

Q12 **Peter Grant:** Mr Pate, I want to come back to you first and pick up on the comment you made about the efficiency savings that you have used to keep within the budget. Is it the case that part of what you describe as efficiency savings consists of either cancelling some items of procurement or delaying them into a future year?

Charlie Pate: Simply, no. We are very careful, and the NAO has audited this with the DE&S efficiency savings, that each of those are real savings—reductions in contract price—and I suspect Sir Simon can give some specific examples there. Those have been through—again, sorry to sound processy, but there is a process in place to get agreements with the individual finance directors on each saving that it does not reduce outputs, but reduces price.

Q13 **Peter Grant:** Just to be clear, you are giving us an assurance that there is nothing in the defence Equipment Plan that should have been in place and operational at the end of the year, but was not actually in place? Is that what you are telling us?

Charlie Pate: For broader reasons, overall there continue to be challenges. I think Sir Stephen said at the beginning that we are having to defer and reduce scope in specific areas to meet the overall challenge. We do not class those as efficiencies. We show that those are the problems and we do that as part of our planning process. So we have had to make



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deferrals. The NAO Report talks about protector deferral and we are clear that that is what those are, not efficiencies.

- Q14 **Peter Grant:** Maybe it was careless wording in my original question. Just to be clear, part of the way in which you have kept within the budget has been by not doing everything that the budget was there for at the start of the year. Is that correct?

Charlie Pate: Yes, we have had to make adjustments as we have gone along. Certainly, in the financial year just gone, we had to do a savings exercise mid-year because of the budgetary pressures, and we took specific saving measures as we went through that, yes.

- Q15 **Peter Grant:** I want to come on to Sir Stephen, the permanent secretary. When you gave evidence to the Committee two years ago, you confirmed that, as accounting officer, you are accountable for keeping within the departmental budget. Is that still the case? Are you still happy to confirm that you are responsible for keeping within the budget?

Sir Stephen Lovegrove: Certainly.

- Q16 **Peter Grant:** Are you also responsible as accounting officer for delivering the Equipment Plan that the budget was based on?

Sir Stephen Lovegrove: I am responsible for delivering the Equipment Plan within the constraints of the budget, but my primary responsibility is to not overspend the budget that Parliament has granted me to do so.

- Q17 **Peter Grant:** Are the consequences for you more severe if you repeatedly go over the budget than they would be if you repeatedly kept within the budget but did not deliver everything in the Equipment Plan?

Sir Stephen Lovegrove: I do not know. It is certainly the case that the consequences for me as an accounting officer would be—as they would be for any accounting officer for breaching their parliamentary authorisations—I would imagine, extremely severe, so that is something that I am not going to do under any circumstances. I would say the Equipment Plan does not have—and cannot have, actually—the level of precision and definition that I think you are implying it ought to have. There will always be slippages and alterations in over a thousand projects of this type of complexity in this kind of environment. It is not the same as building an extension on your house; it is a much, much more complex, much, much more dynamic, much, much more technologically sophisticated exercise than that. There will always be a degree of variation around the edges of any given project

- Q18 **Peter Grant:** Thank you for that answer. The National Audit Office did the Equipment Plan Report over two years ago, and two of its main conclusions were that the Equipment Plan was unaffordable and the Ministry of Defence had underestimated the degree of overspend or unaffordability. Those two conclusions, almost word for word, appear again in the Report we are discussing now. As the accountable officer, how do you account for the fact that two significant problems identified two years ago are still being reported back to this Committee today?



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Sir Stephen Lovegrove: The fact that the Equipment Plan is unaffordable, as I said at the beginning, has never been contested by the Department or by me in front of this Committee. The nature of it being unaffordable does not mean that we are going to breach our budgets.

The reality of the situation is that we have known about the budget being out of balance for a long time—as I say, we have not argued the point on that. There are broadly three ways of getting it back into balance. One is that we can continue with our efforts to procure efficiently and keep costs down, which we do, and manage the programme dynamically. But, more importantly, we can get a commitment of long-term cash which allows the resources to match the ambition, which we can only do in a comprehensive spending review. Or we can have a strategic look at the types of capabilities and commitments that are needed to achieve the Government's ambitions. That will obviously be driven by overall defence and foreign policy, and that gets done in an integrated review, as it is at the moment, or an SDSR.

Until we have that kind of moment—that kind of multi-year strategic reassessment—the job really is to make sure that we preserve decision space for Ministers so that they can make decisions on a day-to-day basis.

Q19 **Peter Grant:** Sir Stephen, the answer you have just given is, I think, the answer that the Chair cut you off from at the start of the meeting. You gave an almost identical answer to the Committee two years ago, to the same kind of questions. What I am trying to get out of you is for how many more years the Committee is supposed to accept you and your colleagues—in good faith and with the best of intentions; I do not question that—giving us the same answers to the same questions about the same failures, when time and time again the Reports we get from the NAO suggest that things have either not improved or improved so little that it has made little difference? Can you tell us how many more of these annual reviews we should expect to go through until either you or another Perm Sec will sit there and say, "We have now got an Equipment Plan that we are delivering on time and on budget"?

Sir Stephen Lovegrove: You will get them until we have a comprehensive spending review and an integrated review which puts it into balance.

Q20 **Chair:** Sir Stephen, Mr Grant is being very generous to you by only going back two years. I have been on this Committee since 2011 and we have seen the same problems. One of your predecessors, Sir Jon Thompson, was the first finance director to become Permanent Secretary and he was very focused on this agenda. So it is not through want of trying—and, as Mr Grant says, all the best intent. So, to push his point a bit, what is going wrong?

Sir Stephen Lovegrove: My view is that it is arguable that the SDSRs in 2010 and 2015 were both deficient in different ways. I think 2010 balanced the budget effectively, but without regard for the integrated nature of the force and the capabilities that were most needed to fulfil the policy ambitions. What happened was that in effect they balanced the



budget simply by cancelling uncommitted expenditure, without significant regard to strategic coherence.

In 2015 there was an attempt to rectify some of that dynamic, but that was at the expense, as it were, of over-ordering, which was enabled by over-aspirational and unsubstantiated efficiency targets. That is the situation that we have been in since I have been in front of this Committee, Chair. We have taken the view that we manage the programme that we have got in front of us—I take the view that we have managed the programme that we have got in front of us.

I will not breach my accounting officer responsibilities to Parliament, but the moment at which we can get this thing properly, substantially and structurally back in balance is the moment at which we have an integrated review going alongside a multi-year comprehensive spending review.

Chair: We are going to come to that later. Do continue, Mr Grant.

- Q21 **Peter Grant:** An alternative view, Sir Stephen, would be: why should Parliament agree to a significant increase in the defence procurement budget just now? What assurances can we possibly have that the Department will not just carry on in the same way it has been doing for the past 10 or 15 years—in effect, deliberately over-programming and then having to delay the procurement of equipment, except with a bigger budget with which to have delays? The track record of the MOD over the past 10 years does not exactly inspire confidence that if we provide more money for equipment procurement, the practices in the Department will be any better than they are now.

Sir Stephen Lovegrove: The track record of the past 10 years is actually that there has been an improvement. Indeed, it says on page 14 of the NAO's Report that in 2009, 80% of projects were late, but in 2019, 46% of projects were late. In terms of cost, I think the record shows that the MOD has been on a journey of improvement. There is of course better progress to be made, but we are definitely improving. Indeed, last year, as the various reports say, we were £20 million out, but we were £20 million down, not over.

On time, it is less good: we do have a problem with that—there is slippage, for a variety of reasons. To a degree, that is a bit inevitable in projects as complicated as this. Again, the NAO makes the point that we are not alone in that: we have an average of 26 months' delay, the Australians have an average of 27 months' delay, and the Americans also have an average of 27 months' delay, so we are all pretty much in the same place. I would therefore not agree with your characterisation that the past 10 years have been anything other than a record of slow but steady improvement, which we aim to continue.

- Q22 **Sir Geoffrey Clifton-Brown:** Good morning, Sir Stephen. May I put it to you gently that the last point you were making was a little bit complacent? Surely, with a budget as big as this, if you know that it is over budget—and you are not disputing that at all—the answer would be



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to cut out some of the items rather than try to deliver everything, but with some of them late and over cost. It would be better to cut some out and try to deliver more on time and on budget, would it not?

Sir Stephen Lovegrove: We would very, very much like to do that, Sir Geoffrey, and it would actually be quite easy to do that—it was arguably what happened in 2010. The management in the MOD in 2010 looked at what was available to cut easily, and they cut it. The consequence of that was that it became a slightly incoherent programme.

We are very, very much looking forward to a moment at which we can look strategically against the background of the Government's overall foreign and defence security policy and make those big muscle moves that you are talking about. We do not have that moment at the moment, and we are quite clear—indeed, in our Equipment Report we are very straightforward in saying it—that what we are doing is trying to maintain the programme of record at the moment to allow Ministers decision space at that strategic moment. We are not complacent; we really are not complacent. The MoD is far from perfect in a whole host of different ways and on procurement, as my colleagues in front of the Committee today will definitely attest.

Q23 Chair: Sir Stephen, in answer to my colleague just now you said that the consequences would be very severe if you breached spending limits. I think we are very concerned generally about the lack of consequences. The Department had three excess votes last year. People might need that explaining. It means that you had to come back to Parliament and ask for additional funds on top of what had already been agreed. Did you feel humiliated, upset or professionally embarrassed by that? What level of consequence did those excess votes have for you?

Forgive me—it was only one. I was reading another note to myself. Still, there was one, on the armed forces pension fund. Was that an embarrassment to you?

Sir Stephen Lovegrove: I do not like doing that kind of thing. I will ask Mr Pate to come in on this, but the pensions situation is to a certain extent a technical thing that is sort of outside our immediate management control. Do I like in any shape or form exceeding parliamentary tolerances? No, I do not. I do not like it at all.

Q24 Chair: Okay, you do not like it, but what is the consequence to you? It is a question that we might ask any accounting officer. To you, professionally—does it stop your promotion? Do you get a pay cut? What happens if you make such an error? Leave the pension one aside for one moment, because I realise that is slightly different to delivering the projects. What are the consequences?

Sir Stephen Lovegrove: I do not know exactly what the consequences for me would be were I to breach my parliamentary tolerances, because I have never done it and I am not aware that any of my colleagues ever do it. It is kind of No. 1, No. 2 and No. 3 in terms of what you are meant to be doing as an accounting officer.



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I would imagine in the first place that the Treasury would be taking away my delegations and authorities as an accounting officer. Effectively, I would be placing the whole Department under special measures, with the Treasury overseeing every single jot and tittle of expenditure. That would be a departmental and personal humiliation, and I would have to think about what I would do about that. I certainly don't think I would be in line for a bonus, put it like that.

Q25 Chair: Okay, we will leave that there for now. We will touch a little later on the particular pressures as a result of what is happening in the world with covid, which we recognise, but do you think that the financial pressures are greater this year on the Equipment Plan than they have been in previous years?

Sir Stephen Lovegrove: Yes, I do. The reason that they are bigger this year, if we absent all of the broader questions about covid, the state of the public finances and all the rest of it, is that there is a cumulative effect of doing what we have to do to maintain the integrity of the programme of record when the balance is out of whack, in that we defer for a year, then defer for a year, then put projects on shorter rations. As I said, the bow wave becomes bigger. You see that in the nature of the more difficult financing position that we have for the next three or four years, rather than the financing position that we have for 10, when you can see some of the efficiencies coming through in full effect. So, yes, I think that the programme is very tight and getting tighter.

Q26 Chair: We have talked before in this Committee with you about the effects of annual budgeting. Obviously, there is a lot to be said for annual budgeting for control purposes, but you are dealing—as we discussed with nuclear—with very big long-term projects. Do you think that it is still the right model for delivering on this budget, and would you worry about the loss of controls as accounting officer if you moved to a different budgeting approach—if the Treasury ever let you?

Sir Stephen Lovegrove: I would not worry about it. It is not as if the private sector does not work in that way—although many of their very big projects go over budget as well. There are perfectly well-established mechanisms for managing multi-year projects with multi-year budgets. So I would not worry about it. We do have some flexibility from Treasury to do our planning on a longer-term basis than other Departments do, but that is not the same as having very long-term budgets, as is pretty obvious. I would not worry about it, and it is a conversation that we continue to have with Treasury colleagues.

Q27 Chair: Do you think that you would need extra capability in the Department if you were to have some freeing up of those processes? You have a target for getting financially qualified staff. How is that going?

Sir Stephen Lovegrove: It is going more slowly than I would ideally like. About 41% of our finance profession have what we would hope would be exactly the right qualifications. That does not mean to say that everybody else is not valuable in their own way, but I would like to see that number



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appreciably higher. Getting financing qualifications is a slow process in its own right, but Mr Pate will have much better insight into this than me.

Q28 Chair: You said "getting" them. Is this existing staff who are trying to get that qualification? It is not new recruits. Charlie Pate might like to come in on this.

Sir Stephen Lovegrove: It is a mixture of the two, but I will defer to Mr Pate.

Charlie Pate: As Sir Stephen said, we are still at 41% who are qualified or part-qualified and so have that qualification status, because it takes a certain amount of time to gain that status. We have another 8% working towards a professional qualification on graduate and apprenticeship schemes, and then we have a further pipeline of 52 internal staff and 40 graduate entrants coming in this year. So we are bringing in people and trying to train up our own.

On your point about long-term budgets, there are two areas that I am particularly focused on in building skills. One is CAAS, our costing service, where we have a new graduate scheme. We have brought in 40 new graduate cost estimators, and they have a bespoke two-year training scheme. That is really important, to bring better fidelity to our costings as we go forward. The other is finance business partnering, which is very much in line with the Government finance functional model. In the past, finance has been a bit separate from the business, and as you know, the whole point of finance business partners is to make sure that that financial advice is right at the heart of decision making. We have another 28 studying various qualifications and other cohorts lined up, because it is so important to deliver the kind of control that you suggested.

Q29 Chair: How is that going in the Commands? Do you have any particular concerns from your perspective at the centre?

Charlie Pate: That is across all the Commands for all those numbers. They all have different challenges, given the demographics of their own staffing and also their location. It is difficult to recruit in some of these areas. With the current circumstances, we are relooking at the location element of our finance functional strategy, because I think there are opportunities now for us to do more remote working, and that might mean we can recruit people in easier areas, frankly.

Q30 Chair: I want to turn to Richard Knighton on the Commands point. Have Commands had to reduce their military capabilities as a result of the cost pressures?

Air Marshal Knighton: If we go back to the answer to Mr Grant's question earlier around efficiencies, inevitably what we find is that Commands have to make decisions to defer the delivery of capability, and as they go through the planning cycle, they will be trying to identify how they can manage within the budgets and preserve the highest-priority capabilities. Then, when we get into the financial year, as the programme starts to deliver and we come across particular concerns with a



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programme or problems with programmes, or we discover that the financial situation is slightly different to what we expected, Commands do have to make difficult decisions to adjust their programme.

For example, if we look at last year, we know that the Mode 5 Indicator Friend or Foe programme, which is being managed by Air Command but affects all of defence, had a number of roll-out challenges, which meant that it was not going to out-turn the same amount of money as had originally been anticipated. So, that has pushed cost into a later year and means that some of the platforms will be modified at a later date. So, I am afraid that it is an inevitable outcome of the position that Sir Stephen described of a budget that is out of balance, which requires us to manage, on a year-by-year basis, the overall expenditure and the capability that is delivered.

What we do know through the delegated model is that the Commands are absolutely best placed to make those judgments around those smaller projects. They understand the programme, they understand the capability it delivers and are much closer to it. Head office clearly has much more insight and interest in the larger, more strategic programmes, many of which this Committee has looked at.

Q31 Chair: Thank you, Air Marshal Knighton. I will just go briefly to Sir Stephen and then I will shortly come to Sir Bernard Jenkin.

As Permanent secretary, Sir Stephen, are you worried that the Commands will have to reduce military capability in the sort of decision making that Air Marshal Knighton just talked about?

Sir Stephen Lovegrove: I am not worried about the integrity of the decision making. I think that since the reforms in—

Q32 Chair: That is not quite what I asked. It is not about the integrity of their decision making. Basically, because of the budget pressures, they will have to make decisions that will reduce capability. That is being done by them. You can say they have robust decision making, but do you agree that they will have to reduce capability in order to deliver on these savings, because the budget is out of whack?

Sir Stephen Lovegrove: There will always be compromises and decisions to reduce capabilities or reduce training that any defence organisation has to make. This is certainly one of the pressures that adds to that, and I would obviously be keen on there being more capability than less, but I am completely reconciled to the fact that they cannot do absolutely everything that they want to do, and this is one of the pressures that adds to that.

Q33 Sir Bernard Jenkin: Good morning, Permanent Secretary and gentlemen. Can I just start by picking up on the Permanent Secretary's letter to the Chair from yesterday and refer back to our previous session about nuclear? Of course, we had a bit of discussion—I hope I am not washing dirty linen in public—about to what extent the overspends in the nuclear infrastructure programme are actually as a consequence of late



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decision making by Ministers. I am very keen—you have already intimated, Sir Stephen, that you want this—to distinguish between your responsibilities and those of Ministers, and I think it is important that the Committee understand that.

So, with these extra moneys that are being allocated to the Dreadnought programme, how much of these amounts are really as a result of late decisions—political decisions—that have delayed crystallising the certainty of programmes and resulted in extra cost? I am not asking you to land Ministers in it; I am just asking how to understand this, because we want the learning to be disseminated. And if some of these problems are not your fault, and you have to genuflect in front of the Treasury as a consequence, we want to understand where true accountability lies.

Sir Stephen Lovegrove: Thank you, Sir Bernard. That is a difficult question to answer. It would certainly be true to say that decisions to put off expenditure because there will be no absolutely immediate consequences—nuclear infrastructure is a very good example—can come back and bite us very badly at a moment at which that infrastructure is more intensively pressed into use. There may be any number of reasons why decisions like that could be taken. Some of them may be about officials and professional colleagues mistaking the nature of the maintenance schedule. It may also be the case that those are sometimes big-ticket items that tend to be less visible to the public, albeit they are very necessary, and decisions like that are put off because there is a desire and a decision to invest in more eye-catching frontline capability, which places very significant budgetary pressure on us at a later stage. There can be a variety of reasons, but your point is a fair one.

Q34 **Sir Bernard Jenkin:** Thank you very much. I do not need to dwell on that; I appreciate the delicacy of your answer.

The other thing that you referred to that is of interest to us is the covid pandemic's effect on ways of working. Can we look at that a little more broadly? What concerns do you have about covid effects on the Equipment Plan—not just on your own personnel, but on the capability of industry? Are we in danger of losing any onshore capabilities, particularly among the SME sector, as a result of the covid pandemic?

Sir Stephen Lovegrove: Candidly, yes, we are very worried about that, and we have really ramped up our monitoring of the health of the whole of the defence sector, in so far as we can see it from the Department. Of course, a lot of the money gets channelled through the big defence primes, and we have been working very closely with them to make sure they are discharging their responsibilities to the second, third and fourth-tier defence suppliers.

There are a lot of companies that are in very difficult commercial circumstances in this sector, just as there are in many others. A lot of them are obviously industrial companies that have ways of working that look quite difficult to sustain in a covid era, which is a problem. We are very concerned about that, and we have been doing a lot of work on it. I probably spend a good day a week on this matter alone at the moment,



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and we are in very close conversations with colleagues in DE&S—Sir Simon will have very clear views on this—BEIS and the Treasury. It is a matter of real concern.

Q35 Sir Bernard Jenkin: I will bring in Mr Knighton in a moment. How are you developing policy options for Ministers on this, and are they expensive?

Sir Stephen Lovegrove: The first thing that we are doing is taking a very liberal—generous—approach to paying our suppliers. We have made it clear to them that they can apply for payment in advance of goods and services actually being delivered. That has not typically been our way, but we recognise that we have a responsibility at this point.

I have written to all the big defence suppliers to tell them that, as far as the Government are concerned, their workforces are critical workers, and that they should therefore feel confident, assuming that they have made the right workplace adjustments, in asking their workers to continue building and maintaining our critical capabilities.

We are looking at a range of specific interventions in specific situations with colleagues in BEIS, the Cabinet Office and the Treasury, and obviously we are presenting them to Ministers in the MoD at the same time. So, there is a lot going on in this space.

Sir Bernard Jenkin: We look forward to that.

Air Marshal Knighton: Part of your question, Sir Bernard, was about the longer-term impact of covid on the Equipment Plan, and I thought that you and the Committee might like a little insight into that—Sir Simon might also have comments to add.

You can imagine that the requirement to social distance is really very difficult in some industries and settings. What we have seen is an unquestionable reduction for a period in the productivity of certain industries. What I should say publicly, however, is that the defence sector and the workforce have really stood up to the challenge. We have seen considerable efforts by management and the workforce to preserve as best as possible the outputs of the Equipment Plan.

We conducted a detailed review through April to look at the precise impact of the early stages of the restrictions associated with covid-19, and we have identified some areas that are at risk. They relate particularly to settings where it is difficult to live within the spirit of the social distancing restrictions or to provide appropriate PPE in those circumstances. We have concluded that there are areas of risk that our industry partners are working incredibly hard to manage, and they are trying, where possible, to recover any time that may have been lost through reductions in productivity. We will have a better indication in the summer of what the impact has been this year and what it will be in future, but until we have done that further review we will not really know the cost implications or what the impact will be on our Equipment Plan.



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But, as Sir Stephen has said, we have identified those involved in the priority outputs for defence as key workers, which has enabled the industry to focus the workforce in the places we care about most. I think the defence sector, for the most part, should be congratulated on responding incredibly effectively to the challenge and working very flexibly.

Q36 Sir Bernard Jenkin: I am sure that the Committee would want to echo those thanks to everyone in the sector.

Moving on to the general affordability of the plan, the anxiety is always that the carrier strike group will need support and air cover, for example. The carriers were conceived when we had a much larger Royal Navy, for example, and we always imagined that we were going to buy a much larger number of F-35s than we currently have on order. Sir Stephen, how good is your understanding of what additional investment in the plan is needed in order to deliver the capabilities that we are committed to?

Sir Stephen Lovegrove: We have a pretty good understanding of that. We would like to have a different type of short-term—bleeding into the medium term—settlement in order to be able to deliver them fully, because the kinds of compromises that we have been talking about today will otherwise be inevitable, but Air Marshal Knighton might want to come in on this.

Q37 Sir Bernard Jenkin: Before he does, are we talking hundreds of millions, billions, tens of billions? I am not asking you to negotiate on screen, but what is it?

Sir Stephen Lovegrove: An interesting indication is that in the last three years we have applied for and got from the Treasury an additional between £1 billion and £1.5 billion each year to be able to keep the current programme of record on track. The fact that we have had to do that each year is probably indicative of a more systemic question than a particular in-year question.

Q38 Sir Bernard Jenkin: How much do you think that drip-feeding from the Treasury actually keeps costs down, or how much would you argue that, if you could have a stable and forward-looking plan, you would be much more capable of sticking to it?

Sir Stephen Lovegrove: I would much prefer to have a stable and secure funding line in the medium term, because that would allow us to plan better and to give instructions to the frontline Commands to plan better as well. This is a long-term business.

Q39 Sir Bernard Jenkin: Can I also pick up on what Peter Grant was saying earlier? You answered very honestly that the kind of political oversight from outside the MoD, with perhaps less understanding of the consequences of big decisions about the Equipment Plan, has actually been disruptive, both strategically and financially. How much would it help the MoD to control costs and improve efficiency if we did not pretend to have a single security review across a whole lot of Departments with decisions being taken outside the Department, but actually recognised



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that the MoD always used to conduct its own defence review and should be allowed to conduct its own defence review again? Would that improve the efficiency of what you do?

Sir Stephen Lovegrove: That is a very interesting question. I personally think that the nature of modern defence, the kinds of capabilities that are used, and the way in which they are used, argue quite strongly for a review that does incorporate other elements of Whitehall, because we work, and need to work increasingly, in concert with each other. The recent announcements on the national cyber force are a good example of that, where that is effectively a joint venture between us and GCHQ. That is a big commitment of funds.

Likewise space, which we have now recognised as a war-fighting domain, is a conversation that we typically have with BEIS—slightly unusually. I do understand absolutely the question you are talking about, and there is always the ability of great cross-Whitehall processes to slightly muddy the waters, but on the whole I am keen on the idea of fusion.

Q40 **Sir Bernard Jenkin:** Thank you. Air Marshal Knighton, if you want to comment on any of this, could you tell us whether we are still committed to the 138 F-35s? We are financially funding only 48 purchases. I put it to you that unless you can go into a conflict and contemplate losing aircraft, that is too few.

Air Marshal Knighton: I would add a couple of points to Sir Stephen's comments and to yours, Sir Bernard. The first question you asked was whether we were confident that we had the force structure necessary to deliver carrier strike capability. I am the senior responsible owner for the overall capability, with responsibility for pulling all the various parts together. I have just completed, yesterday, a detailed review of each of the programmes. I am confident, as the senior responsible owner, that I can advise Sir Stephen and the Chief of the Defence Staff that we will be able to bring the components together to deliver a carrier strike group of the right capability next year, and that we will be able to sustain that going forward.

On the specific question about the F-35s, our position remains the same as it was set out in SDR '15, which is that we still expect to need 138 aircraft over the full life of F-35s. Remember: we expect the carriers still to be operating well into the 2050s and out to 2060, and we know that we will need to replace some of the F-35 aircraft because they will run out of life. We will inevitably, though, through an integrated review and a comprehensive spending review of the like that the Permanent Secretary describes, want to think about our overall combat air plans. The Government have previously announced the future combat air strategy and our intent to examine what a replacement should be for Typhoon and the impact that could have on the British defence aerospace industry. We will inevitably be thinking about our overall programme as we look forward over the next decade through an integrated review and a spending review.



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I should just add one final point on Sir Stephen's comment about the fusion and integration of our capabilities across Whitehall. The Modernising Defence programme and White Paper set out a world in which we face constant competition, particularly below the traditional threshold of warfare. In competing in that environment, we need to harness all the levers of national power, so to think of it in a holistic sense, against that backdrop, does make sense.

Q41 **Sir Bernard Jenkin:** How do you think your long-term financial management has improved since 2012, Mr Pate?

Charlie Pate: We are improving our approach on the things we were talking about earlier in respect of our realism, our understanding of what we can spend and our costing of our programmes, as Sir Stephen mentioned—

Q42 **Sir Bernard Jenkin:** Can you give an example?

Charlie Pate: Our costs in the project summary reports this year have changed by only £20 million, which, given the scale of the programme, is no real change at all. Of course, that reflects things going up and down—we have made savings in some areas that reflect costs in others—but you would expect that on an overall portfolio. I do think that our grasp of the overall situation is better; it is the affordability that is the challenge.

Q43 **Sir Bernard Jenkin:** How do you think industry is responding in respect of the clarity and stability of your plans?

Charlie Pate: I am sure that they would want the most stable plan possible. It is difficult for them and for us, as we have to adjust programmes to meet the affordability issues that we have.

Q44 **Sir Bernard Jenkin:** Sir Stephen may want to take this question, but answer it if he is happy. Are you content that the Department has set an affordable budget for 2020-21?

Charlie Pate: With the £1.5 billion that we received from the Treasury, we are in a much better place than we were. It is still a challenging budget, but that is more than 2% real growth, which, set against the commitment of 0.5% growth, reinforces the challenge that we have. We are having to take challenging decisions to live within that budget. I think the £1.5 billion reflects that.

Q45 **Sir Bernard Jenkin:** Basically, you are going into the year with items already identified that will have to be delayed or cancelled—the old thing of cancelling the training, delaying the purchases, shortening the inventory and reducing the logistical supply chains. Is it that sort of squeezing, or are bigger decisions going to be made?

Charlie Pate: I am afraid that we have had to take those kinds of squeezing decisions, so reducing spend on infrastructure where we did not want to and reducing training exercises. We have taken decisions on specific capability, keeping support ships in extended readiness—that kind of thing—to live within the budget. I suspect we will have to come back to



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this, as we did in 2019-20, as we see how the finances pan out over the coming months, not least with the impact of covid.

- Q46 **Sir Bernard Jenkin:** How is the delegation of the TLBs to the Commands working? Has that improved accountability and responsiveness, or are they making it more difficult to manage?

Charlie Pate: I believe it has improved accountability. Given that we got the settlement from the Treasury last autumn, we were able to give each TLB their indicative settlement by Christmas again, which repeated what we were able to do last year.

- Q47 **Sir Bernard Jenkin:** How confident are you that the three Commands programmes are affordable?

Charlie Pate: I think they all show a significant challenge as we start the year. We often have that at the start of the year, and we take the decisions and manage through, but for all of them it is a challenge; I would not underplay that at all.

Sir Bernard Jenkin: Terrific. Thank you.

- Q48 **Chair:** Sir Geoffrey, before I move on to you, I want to ask one question about the letter. In the letter, you talk about different methods of financial reporting and say that you would provide us with updates. I am concerned about the timings of some of those, but I thought it might be helpful to bring in the Comptroller and Auditor General on this point, to make sure that we are clear what we are going to get from your Department, Sir Stephen, so that we can keep a thread running through to follow spending and accountability for that spending. I am going to bring in Gareth Davies, the Comptroller and Auditor General.

Gareth Davies: Sir Stephen, I think the Committee would find it helpful to have your up-to-date view on the timetable and nature of Equipment Plan reporting for the year we are currently in, and also your view on when you will be able to return to full Equipment Plan reporting on the previous basis.

Sir Stephen Lovegrove: I will hand this over to Mr Pate, who is much closer to it.

Charlie Pate: This is a proposal. We have not agreed it yet, but we wanted to set it out for the Committee to see if this met the standards of transparency that we absolutely want to live by, and we would fully expect an NAO Report against this and a hearing. On the Comptroller and Auditor General's first point, we would want to do the financial report some time in the summer. We have previously delivered reports in October-November, and we would have done so last year were it not for the general election. We would want to do it a little bit sooner than that. We are just having to reflect the impact of all the people across defence who need to contribute to this. The suggestion would be that we continue with this type of report until we get a full comprehensive spending review that gives us that longer-term look and then a full assessment of how we meet the challenges that provides.



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Q49 **Chair:** It could be quite a long time before the spending review. I suggest that the Comptroller and Auditor General and you have a serious discussion about this and advise the Committee. Gareth, is there anything you want to add?

Gareth Davies: No, that is helpful. We will need some time to do our part of this exercise as well, but we will be discussing that with the Department.

Chair: We will keep a very close eye on this, because we get nervous when you change reporting patterns, although we recognise that we are in extraordinary times. There are Departments very keen to stick to their patterns, and we recognise the challenges, but let's have a conversation about that. We now go over to Sir Geoffrey Clifton-Brown.

Q50 **Sir Geoffrey Clifton-Brown:** Sir Stephen, I accept that we are in the middle of extraordinary times, as the Chair says. This covid virus makes planning very difficult, but can you give the Committee any idea at all of when we are likely to see the integrated defence, security and foreign policy review?

Sir Stephen Lovegrove: As you know, that is not a decision for me; it is a decision for the Prime Minister. The indications that we have been given are that the full integrated review will be some time next year but that there will potentially be something direction-setting later this year. Exactly how full that is, I do not know. I think our view is that the fuller it can be, the better, for the reasons we have talked about.

Q51 **Sir Geoffrey Clifton-Brown:** We are five years off the last security and expenditure review. This surely must give you great difficulties in making defence equipment expenditure decisions, because you simply do not know what the new review is going to conclude.

Sir Stephen Lovegrove: It is certainly time for another review. The world has changed very significantly since 2015, and the posture of the UK has changed quite significantly as well. The types of technologies that we are facing, the threats that we are facing and the intents of other nations we are facing have all changed a great deal. So yes, it is definitely time for another review.

It is not the case that we are sitting, twiddling our thumbs, waiting for tablets of stone to emerge from No. 10 and the Cabinet Office to tell us what we have to do.

Chair: I fear you would be waiting a long time.

Sir Stephen Lovegrove: We have had the national security capability review and the Modernising Defence programme. Those have set out some of our basic thoughts. We know that we want to double down on R&D and move further away from platforms and more into a data-centric, information-centric type of environment. We want to work more closely with colleagues across Whitehall. So there is plenty to go on there, but we do need the moment at which Government sets the course for the next



few years and attaches the appropriate resourcing to it. On that, I agree with you. We are very keen to see that as soon as possible.

- Q52 **Sir Geoffrey Clifton-Brown:** Given that you are the accounting officer of the MoD, will you be using all of your influence to ensure that whatever comes out of that integrated review, you will be given a budget to provide the equipment to meet the review?

Sir Stephen Lovegrove: I can absolutely give you that assurance, Sir Geoffrey. That is what I spend pretty much every waking hour thinking about.

- Q53 **Sir Bernard Jenkin:** Were you concerned that it was being rushed before we were hit by covid? How much is the extra time an opportunity for people in the background to enlarge understanding, share more ideas and knowledge and, in fact, come up with a better review?

Sir Stephen Lovegrove: It is a balance. We had done a lot of thought about these matters. I did think that the more and wider consultation that could be done with parliamentarians, think-tanks, the public and informed commentators in the press, the better it would be—we would get better answers as a security community and be able to explain some of the threats that we have been facing. So I was very keen that we would consult as widely as we could, and a bit more time to do that was definitely a good thing. On the whole, though, I would prefer the answer to come out sooner rather than later, even if that meant a small compromise on the consultation.

Chair: I think you are optimistic that the Treasury and No. 10 will have the capacity to be in listening mode to further detailed work, but I wish you the best of luck with that. I will ask Sir Geoffrey to come in briefly on some issues on jobs and covid-19, which we touched on earlier.

- Q54 **Sir Geoffrey Clifton-Brown:** Sir Stephen, you touched on the whole issue of the defence equipment supply workforce. Of course, covid has had a huge effect on that. Take BAE, which has one big facility near me at Filton: it said it had 10,000 employees furloughed, of which 2,700 have now returned to work, but that still leaves 7,500 furloughed. Can you give us a little bit more of an update? I know you are being generous with your payments up front and all of that, but how are you really going to get the defence industry back on its feet after covid is over?

Sir Stephen Lovegrove: You will be aware that, as we set off towards the integrated review, we had just started doing something called the defence and security industrial strategy. The reason for that is that we wanted to take a really good look at whether the way in which we contracted with and supported the companies and industries in the sector was right for the time. The world has changed a lot, and there has been a great deal of consolidation in the sector, particularly in America. We have seen companies from the east and from America coming in and buying a number of companies, raising questions about security.

We are also very well aware of our responsibility to support employment and high-tech industries in the UK, of which defence is a very important



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part. All those things were being reviewed in the defence and security industrial strategy, which was announced in Parliament just before covid struck.

Since that moment, the requirement to look at our involvement in these industries, as the state and as a Department, has grown rather than diminished. The threat environment is different now, so we need to make sure that we are getting that right. We also know that we are typically the overwhelming source of funds for many of these companies, and we have a responsibility to make sure we have both short and long-term plans in place to support that important part of the country's industrial base, and to maintain the sovereign capability that we need for the future. It is very, very live at the moment.

Q55 Sir Geoffrey Clifton-Brown: You said that you have been involved in discussions with the Treasury and BEIS. Is the tenor of those discussions that, even if it takes extra funding, the core defence industry workforce will still be maintained, and we won't lose some of those core skills in this area?

Sir Stephen Lovegrove: That is absolutely an important part of those discussions. We have discussed in this session before, and in other fora, our concerns about suitably qualified and experienced personnel, as they call it in defence—the technical base of the British workforce in this area. We must maintain that. If we lose what is still a very substantial national advantage, we will be in very big trouble. That is absolutely a big part of those discussions.

Sir Geoffrey Clifton-Brown: Have those discussions involved what extra funding you might need to maintain that?

Sir Stephen Lovegrove: They have talked in great generality about that. It is still a bit early to come up with very specific programmes for the industry as a whole. There have been certain companies that we have talked about—I can't talk about them here—where those kinds of conversations have happened. As the changes that are wrought on the industrial base become clearer, I think we will have those conversations with greater precision.

Q56 Chair: Richard Holden, the Member for North West Durham, is unable to be with us today, but he, along with many colleagues, is concerned about the 9,000 jobs that Rolls-Royce announced last week are likely to be cut. We understand, Sir Stephen, that it is early days yet, but they are guessing that most of those will be in the civil aerospace division. That company has obviously been having problems for a while. What support are you providing to Rolls-Royce and the aerospace industry particularly, given that covid is hugely reducing opportunities in the civil area on that score?

Sir Stephen Lovegrove: The 9,000 jobs that, regrettably, seem to be being lost at Rolls-Royce are—I think you are right, Chair—coming out of the civil aerospace area. It would be wrong of me to give you a view. The



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questions about that area are better directed towards colleagues in BEIS and the Treasury.

Q57 **Chair:** I am asking because we rely a lot on Rolls-Royce and BAE Systems—a few big companies that are specialists. We have discussed this many times: part of your strategy, as a Department, is to make sure that there is a good economic and industrial strategy in this area. Is the loss of these jobs in civil aerospace going to have a knock-on effect on the ability of the company to deliver for you on the military side, and have you had any discussions with Rolls-Royce in the last week?

Sir Stephen Lovegrove: We have discussions with all our big suppliers all the time, so yes is the answer to that, but equally we have had discussions with Babcock and BAE as well. There is no doubt that the civil aerospace and the military aerospace businesses are linked. They are in separate divisions of Rolls-Royce, but that does not mean to say that they don't rely on the same supply chains, and engineering staff move from one to the other. I think it is the case that a number of the innovations that Rolls bring forward on the civil side are first trialled on the defence side. So there is definitely an impact. It is a bit more occult than you might imagine, but there is definitely an impact. We have been discussing that with them. It would probably be wrong of me to go very much further than that in this forum, but it is a very live subject.

Q58 **Chair:** I appreciate that. If I am going too far, we can always secure, if necessary, a private briefing. I think there are a couple of things today that we would like to speak to you privately about and which we will write to you about. But Rolls also make engines for RAF Typhoon fighter jets and marine engines for the Royal Navy—for the aircraft carriers in particular—so they are quite significant. At this stage, are you able to tell us whether these job losses are going to have an impact on the ability of Rolls-Royce to continue to provide these vital parts for our defence?

Sir Stephen Lovegrove: I have asked that question explicitly of the chief executive and the chairman, and they have given me very reassuring answers. I have also asked them whether there is going to be any impact on the nuclear propulsion business that they run for us—they make the nuclear power plants for all our nuclear submarines. They have given me equally reassuring answers on that as well.

Q59 **Chair:** Have you talked to them about the integration of those different divisions? The skillsets necessary are vital to our defence. What purchase does the MoD have with a company such as Rolls-Royce, where the skills that could be lost with these 9,000 jobs could be critical to our defence? Obviously, you have an interesting relationship with a company that provides defence. Have you had those sorts of discussions with Rolls-Royce in the last week or prior to this announcement?

Sir Stephen Lovegrove: That is really a whole-of-Government conversation. You are right to identify it as an issue, and it is certainly something that we have talked and thought about, but it is a whole-of-Government issue. Rolls is important for the nation. It is an engineering champion. We have only got one company like Rolls, so it is a question



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that definitely goes a bit broader than defence. We are a big part of their revenue stream, but we are certainly not overwhelmingly the majority.

Chair: Thank you very much for that. Certainly the Member for North West Durham and, I think, the Member for Bristol and others will want to speak to you. Some of us may be doing that through the Committee sitting in private, if necessary. I will now ask Peter Grant to get more into the issues around capability, which we have obviously been building up to.

Q60 **Peter Grant:** Can I come first to Mr Knighton? I don't know whether Mr Bradshaw will want to answer this as well. Looking at the history of the F-35 fighter project, how can you justify the fact that that was given an IOC approval when there were so many significant exceptions that still needed to be sorted out?

Air Commodore Bradshaw: You highlight the number of provisos that were applied at the declaration of initial operational capability for the F-35. At the time, I was the Lightning Force commander, so I was on the opposite side, if you like, of the negotiation between the frontline and my current role as the senior responsible owner, so I am well placed to answer this question.

You used the word "significant" in terms of provisos. I would counter that by saying that they were manageable provisos—so short-term issues for which we had adequate mitigations in place. If I can give an example, at the outset of the F-35 programme we decided that we needed three concrete vertical landing pads at RAF Marham, to allow our short take-off vertical-landing aircraft to land—that is one of the modes in which it can land.

When it came to the end of 2018, close to the declaration of IOC, we had one pad fully available and another was available for emergency use. Therefore, that became a proviso—that we needed to complete the work to deliver those three pads. That was not a good reason to hold back this incredible capability from the frontline. And that approach was taken across all those provisos, to understand a mitigation was in place, it was satisfactory and that we could benefit from this extraordinary capability at the end of 2018.

Q61 **Peter Grant:** But does that not then beg the question as to why the initial specification said that you needed three of these platforms when you then decided, at the last minute, that one was enough, at least to clear the initial operating capacity, if not full operational capacity? Was there a problem with significant over-scoping at the start of the project?

Air Commodore Bradshaw: No, I would not say it is over-scoping. It alludes to a point raised by Sir Stephen, in that when you bring a capability into being, you want as much available and completed as possible, and building works on airfields are incredibly invasive—they produce foreign object damage, which risks bringing down aircraft if bits of concrete are ingested into the fast jet's engine—so it was quite sensible to try and achieve building those three pads in one go. The reality was that



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the pads were in place; it was actually the environmental conditions of a very hot summer that meant we had to restrict their use.

I use that as an example. I can provide other examples, if required, where we set the bar at an appropriate level, with the aim of achieving a level that was suitable, but the reality of a highly complex programme is that we cannot always achieve those targets, hence the process of understanding the mitigations that are in place and delivering the capability nevertheless.

- Q62 **Peter Grant:** One of the exceptions highlighted in the NAO Report was poor availability of simulators to train the pilots. You are obviously an expert in this area and I am not, but it seems to me that if you are limited in your ability to train your pilots, that must have an effect on the operational effectiveness of the planes. How much of an effect did it have on the timetable for bringing all your pilots up to full operational standard, given the fact that you did not have the access to the flight simulators that you might have hoped for?

Air Commodore Bradshaw: We did have a discussion with the NAO as they published their Report, because we did in fact have availability of those flight simulators, as used by the pilots. Where we were lacking was in mission support training and a deployable type of simulator. So there were issues with simulators, but in terms of training the pilots for initial operational capability from land, I was content—as the then force commander—that we had conducted sufficient training.

- Q63 **Peter Grant:** I used that as one example, but do you understand the concerns that laypeople such as myself will have in reading the NAO Report, where it looks to us as if—time and time again—when you get close to the date to get approval to move on to the next stage of the project, if the ball is not going to go into the goal it seems as if sometimes the goalposts get moved so that the ball goes in. I am not referring only to the F-35 project; there are a lot of other projects where it seems as if, at the intended date to move on, it has not reached the stage of completion that was expected, so somebody takes the decision to change the standard they wanted, in order to move on to the next stage. Is that a phenomenon you recognise in the way the MoD manages its procurement contracts?

Air Commodore Bradshaw: I can only really speak for the F-35 in that context, and perhaps I will hand back to Air Marshal Knighton to pick that piece up subsequently. Certainly for the F-35, which is a highly potent airpower capability, getting that on to the frontline is the goal. There are certain steps and requirements that we need to try to fulfil to get to that goal fully, but as long as we get to a satisfactory level—and this was in discussion between me and the then senior responsible owner, and we were held to account by the Chief of the Air Staff and his deputy, the Deputy Commander (Operations), and they were also satisfied that it was an acceptable declaration of capability, the benefit far outweighed those short-term issues, for which, in every single case, we had an adequate mitigation.



I, too, share the concerns to a degree, because it is the Royal Air Force, Royal Navy personnel, supported by civil servants and contractors, on the frontline who are creating these mitigations and working very hard to deliver them.

Q64 **Peter Grant:** Does Air Marshal Knighton wish to come in on the more general question I asked?

Air Marshal Knighton: The worked example of the F-35 Lightning II that David has set out is a good example of the challenges we face in these highly complex programmes. I absolutely recognise, Mr Grant, that, when looking at it cold, your description of moving the goalposts is not an unreasonable one. As David has set out, however, what we are trying to do is to get the best capability we can into the hands of the users—the soldiers, sailors and airmen—who are going to operate it and put themselves in harm's way. It is a judgment that needs to be made about whether the aggregate capability that is available is sufficient and justified to declare that as operationally capable and allow the soldiers, sailors and airmen to take that capability and use it.

Where we find ourselves in a position where capability is not adequate and we judge that the risk is too great or the capability is insufficient, that is the point at which we would say that we have missed that target and that is when we would ask the SRO to write to the Permanent Secretary, and he will then write to the Committee with his accounting officer assessment about the future of that programme. Sadly, we have had to ask Sir Stephen to write a number of those letters over the past few years.

I want to reassure you, Mr Grant, and the Committee, that we do not move the goalposts on the basis of trying to make it look good; we do it on the basis of the operational demand, the risk that we face and the balance, as David has described, of the mitigations that have to be put in place to work around those shortcomings, and the value of actually releasing that capability to the frontline. I point out that Lightning II was able to deploy to Cyprus and fly live operations over the middle east.

Q65 **Peter Grant:** Are you concerned about any potential conflict between the understandable desire to get a major piece of equipment through the process and the need, potentially, to say, "Stop. This is just not good enough. We can't expect people to fight using this equipment. We have to delay it." Is there a potential conflict between those two very understandable wishes, which might be exercised, in some cases, by the same person?

Air Marshal Knighton: You are right, Mr Grant. That is exactly a risk. There is inevitably an absolute focus and commitment from the senior responsible owner and her or his team to get on and deliver the capability. Sometimes we find that that can cloud judgment, which is why we have a number of the programmes overseen through the Defence Major Projects Portfolio sponsor group, where we examine those things. Mr Pate and I have recently been through a particular issue exactly like this with Ajax, where there was a desire to preserve dates in order to maintain the focus



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and the morale of soldiers that would use the capability, but it became clear that elements of it were not going to be ready by the original date. In due course, when we better understand the details of that, Sir Stephen will be writing to the Committee with a revised assessment of the programme.

You are absolutely right, there is definitely a risk that that can occur, and there are examples where it has occurred, but the checks and balances that we have in place and the personal accountabilities that come with senior responsible owners and operational duty holders from a safety perspective are, I think, appropriate to ensure that we do not find ourselves in a position where we declare capability that is frankly unsuitable.

Q66 Peter Grant: To follow up on that, we have had a written submission that suggests there is a cultural problem in MOD procurement. The person uses the phrase “ethical fading”. I do not know whether that is a phrase that you are familiar with. It describes a process by which, without any intentional or deliberate misconduct by anybody, the culture of the organisation produces a process in which so many people feel under pressure to approve things that the organisation ends up giving approval to something that should never have been approved in the first place. Is that a phenomenon that you recognise as existing within MOD procurement just now, or is it a risk that you are aware of that has to be managed out of the system?

Air Marshal Knighton: As a general perspective on the behaviours of groups of people, I absolutely recognise what you describe. When I did my master’s degree, I wrote my dissertation on the psychology of risk and its role in decision making. The kind of behaviour you describe was probably prevalent as a precursor to the Columbia space shuttle disaster. I think it is fair to say, therefore, that that risk must apply in the kind of settings in which we find ourselves in defence. We place great store on delivering a capability to the frontline and to the soldiers, sailors and airmen who are going to put themselves in harm’s way. There must be a risk that we get press-on-itis, as it is sometimes described in a military sense, and we continue to try to drive at a project, even though the evidence might suggest that it no longer makes sense.

We have a very robust oversight and governance process in place around our major programmes, and particularly around safety—very significant changes were made following the Haddon-Cave inquiry into the Nimrod accidents in 2000—which gives me some confidence that we have got the right checks and balances in place to ensure that we identify these circumstances, but I would not want that to be taken in any way as complacency on my part or on the part of the organisation. It is an issue that we need to be alive to. Our governance systems and our oversight need to be proportionate, so that they do not stifle innovation or slow things down but enable us to ensure that we do not find ourselves in the position that you describe.

Q67 Peter Grant: You have referred to the processes and the checks and



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balances. How confident are you that the culture of the MOD is one in which an officer who is charged with recommending approval or stop on a project can feel that they will get proper recognition by saying, “Stop”, rather than being treated as if they have somehow failed? One of the things that has been suggested to us is that the easy option for someone who is faced with a difficult choice is to cross their fingers, sign it off and hope that someone else will pick it up later.

In some cases, it has been suggested that officers may find themselves under undue pressure with what you referred to as press-on-itis. That is not a process problem; that is a cultural problem. How confident are you that the culture in the MOD now is that anyone involved in this process who thinks there is a problem can be fully confident that they can raise the problem without any detriment to themselves?

Chair: Mr Grant, is that to Air Marshal Knighton? I know that David Bradshaw is also keen to come in.

Peter Grant: Yes, it is initially to Air Marshal Knighton, but also to Air Commodore Bradshaw if he wants to come in.

Air Marshal Knighton: The risk that you describe definitely exists. In an organisation that is hierarchical and values delivery and outcomes, there must be a risk that people who put their hand up to say, “Stop, there is danger here” will find it more difficult, because it requires a degree of bravery. What I would say, though, is that over the last seven or eight years I have seen a shift in the culture in defence—often driven, actually, through the application of our safety management systems—where we are much more ready and able to accept people putting their hand up, calling out and identifying risks and issues of the kind you describe. We cannot be complacent. The environments in which we operate must raise that risk a little, but as I say my personal experience—I am sure David will talk about his in a moment—suggests that we are in a better place than we were, but we cannot be complacent. We must continue to ensure that we have the right processes in place and that we continue to work on this no-blame culture right the way through the organisation.

Air Commodore Bradshaw: Briefly, as a current senior responsible owner, I represent the frontline in many ways. I do not want to pass unsatisfactory equipment to my frontline colleagues, bearing in mind that I was previously on the frontline and hopefully will go back to the frontline at some point. I have every confidence in my chain of command, both within the Royal Air Force and in the Ministry of Defence, that if I provide an objective evidenced argument to say that we should not proceed in accordance with the current plan, I would be supported through that. Clearly it would be a robust discussion. Were this to happen with Air Marshal Knighton towards the end of year for IOC carrier strike, I would expect significant challenge but, with that evidence in place, subsequently support, and then we would together work at fixing the various problems.

Q68 **Sir Geoffrey Clifton-Brown:** I will start with Air Marshal Knighton and hark back to the F-35s and when the design of the carriers had to be



altered, for understandable reasons, to change the conventional take-off and landing system to a short take-off and landing system. Does that not demonstrate that when a big strategic decision like that is made in your organisation, it does not have a sufficiently reactive procurement department? Because neither the carriers nor Marham were ready to take the aircraft from America on a timely basis, so the project was delayed and the cost was increased.

Air Marshal Knighton: It would probably be worth me going back over a little bit of history. The original plan, going back to the early 2000s, was for a short take-off vertical landing aircraft—the F-35B—and to have a carrier that could be optimised for that. You may recall that a decision was made in 2010, as part of the SDSR, to move to a conventional take-off and landing marinised variant of F-35, which required there to be changes to the design of both carriers, which were already in build.

It then became clear that the costs associated with that modification were considerably larger than had been assessed at the time when the decision was made. That is why there was the reversion back to the original plan for the short take-off and vertical landing variant of the F-35 and the original programme for the carriers. I would argue, in fact, that the problem was that the decision to change from the original plan to a conventional take-off and landing using catapults off the carrier deck was based on insufficient evidence and advice.

I think we need to be very careful and thoughtful about making a similar mistake again in any kind of review where the pressure is on to make quick decisions and potentially make savings. Our focus should be on trying to drive to a position where we have proper evidence to inform those decisions. When we do that though our normal processes of approval, we do it very thoroughly. What happened with the F-35 and the carriers was that it was made rather quickly with inappropriate levels of evidence, and that decision finally got found out. That is why they reverted to the original design and plan.

Q69 **Sir Geoffrey Clifton-Brown:** Doesn't that rather prove my point that when an important strategic change like this is made, the procurement part of your organisation is not sufficiently reactive to be able to deliver the changes on time? That is what led to the delay and the increase in cost.

Air Marshal Knighton: I am afraid I do not agree with that characterisation. It wasn't that the procurement organisation could not respond fast enough; it was just a bad decision.

On your broader point about the speed of procurement and the agility that is demonstrated by our acquisition organisation more generally, that is a key focus for our acquisition transformation programme. We recognise that technology is changing, and the rate of change of technology is also increasing, so the need for us to be able to respond rapidly, bring new capability into service and put it in the hands of users quickly is increasingly important.



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One of the key focuses for the work on the acquisition transformation programme—we are working very closely with Sir Simon and Defence Digital—is on how we speed up new capability and the modification of capability that we have in service, such that we can put it in the hands of users faster and deliver some kind of operational advantage that we might not otherwise have. Sir Stephen Lovegrove talked earlier about improvements to the timeliness of delivery, but it is still not good enough. We recognise that we need to do better and adjust the way in which we acquire things to the way in which we scrutinise things in order to exploit new and emerging technologies.

Q70 James Wild: I want to turn to one of the other case studies in the Report—the Watchkeeper programme. What is the status of Watchkeeper? Has it now received full release to service?

Air Marshal Knighton: It is great to see you again, Mr Wild. Yes, it has now got a full release to service. It has flown in excess of 200 hours in Cyprus and Boscombe Down, and is now available for tasking on operations.

Q71 James Wild: So no other clearances are required for it to deploy operationally?

Air Marshal Knighton: That is correct, yes.

Q72 James Wild: What has happened since the IPA review in 2019, which is referred to in the Report? It emphasised the importance of demonstrating value of capability through increased flying hours and operator training. Are the 200 hours that you referred to since the IPA report?

Air Marshal Knighton: No, I think that is total fleet time. I will have to write to you with the precise details of what flying hours have been achieved since the IPA report. In terms of pilot training, the first course of operators has now graduated, and the training of the trainers has been undertaken. That means that we can ramp up the training for our operators so that we have greater capacity in the force to operate more platforms. We will see the flying hour rate increase, as will the consequence, I'm sure.

Q73 James Wild: When are the mid-life upgrades due? Are they funded in the Equipment Plan?

Air Marshal Knighton: We know that there is a requirement to upgrade elements of the operating system on Watchkeeper in the mid-2020s. There is money set aside in the programme to do that, and as part of our analysis of the Equipment Plan going forward, we will examine whether it makes sense to invest in a mid-life update, continue with the capability that we have, or think about the opportunity that new and emerging technology might offer. We have funding set aside for that mid-life update.

James Wild: Sir Stephen, you have previously talked about the need to scrap some sacred cows in order to balance the budget. Thirteen years from business case to full operating capacity, and still unable to fly in



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certain weather conditions—do you think that that capability really represents value for money?

Sir Stephen Lovegrove: Like all our capabilities, we keep it under constant review, and we will review it even more closely when we get the opportunity to think about our capability suite in the round strategically later this year, I hope.

Q74 **Chair:** We might be quite interested in looking at this in a bit more detail, Sir Stephen. Would it be possible to arrange a private briefing?

Sir Stephen Lovegrove: On Watchkeeper?

Chair: Yes.

Sir Stephen Lovegrove: Yes, of course. We would be delighted.

Chair: Thank you.

Sir Bernard Jenkin: Defence capability—are we really confined to four minutes?

Chair: Carry on, Sir Bernard. We have plenty of time.

Q75 **Sir Bernard Jenkin:** You are looking at acquisitions, support of military capabilities, embracing modern technologies and delivering a sustainable workforce, and you have Project MAID, which is the MoD's approach to investment decisions. Sir Stephen, do you have a timeframe for this? What is it?

Sir Stephen Lovegrove: MAID is ongoing, and a number of the recommendations coming out of it have already been implemented. I suspect it will be one of those things that is a question of constant improvement. Mr Pate is in charge of it, and he will have better detail.

Q76 **Sir Bernard Jenkin:** Okay. Well, maybe he can answer this. How will you measure impact?

Charlie Pate: It is, as Sir Stephen said, about continuous improvement. One of the main things we have done is to introduce strategic outline cases, which means that decision makers in Departments get to assess programmes much earlier on in their gestation. We have had seven of those so far at the investment approvals committee, which I chair. It goes through that, and then it is about understanding the choices that we take. It is difficult to put specific measures on it. As continuous improvement, that is what we are trying to do.

Q77 **Sir Bernard Jenkin:** I have looked at this for the best part of 20 years. The UOR experience has demonstrated opportunities for a much more agile defence programme. A whole armoured vehicle programme emerged from a land war in Afghanistan, which would have seemed improbable. UORs have much smaller teams, much tighter timeframes and much smaller budgets, but nevertheless deliver very good value for money. As we are looking at this transformation of capability, and we never have enough money for the programmes that we want to have,



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how are we developing a much more ready capability to make sure we have the equipment and capabilities we need for the conflicts we find ourselves in?

Sir Stephen Lovegrove: As a general point, Sir Bernard, you are absolutely right that we take too long specifying capability. We do it in a mid-20th-century type of way, and the ability to do it much more quickly, agilely and responsively is amply demonstrated by what we can do when urgent operating requirements come along and suddenly things have to be produced. That is what a lot of MAID is trying to get at; it is trying to replicate some of that.

The other aspect of it is this. We have talked a bit about how we have a rigid set of deliverables at the beginning of an investment case—the beginning of a programme—and sometimes we miss them and then have to go back. Actually, the reality is that that is not a particularly 21st-century way of going about capability development. All of these capabilities are profoundly and radically dependent on information technology, software upgrades and sometimes hardware upgrades. And we need to find a way in which we can initiate things appropriately and sensibly, à la the way that Mr Pate has described the strategic outline case, but also spirally develop them, so that they come into operation quicker and they can be improved more quickly.

We are a long, long way away from being as good as we want to be on that; I mean, it is quite a profound change. Both Sir Simon and Air Marshal Knighton will have more on it. But you put your finger on something that we really must change, and that we really must be very, very clear-sighted and thoughtful about.

Q78 **Sir Bernard Jenkin:** Can I ask if any of you are familiar with the writings of Stephen Bungay, who is the director of the Ashridge Strategic Management Centre, who identifies two types of organisation: a type A organisation, which understands rules compliance, is risk-averse to failure and sees itself as the guardian of process; and a type B organisation, which would be rewarding achievement and what he describes as crystallising opportunity from risk, rather than just avoiding risk, and some people might describe it as commercial? One organisation is trying to control things and the other organisation is trying to develop opportunities from its lack of control of things.

There is a certain amount within the NAO Report about the culture within the Department—I am quoting from the brief—"which prioritises passing review points and approvals above delivery of outputs and outcomes". You want to increase the pace of delivery. So, how are you going to become more of a type B organisation and less of a type A organisation?

Sir Stephen Lovegrove: I am not aware of Professor Bungay's work, but I absolutely recognise his characterisation of two different types of organisation, and we are much more like a type A organisation than we are like a type B organisation. We are trying to become more like a type B one.



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We cannot get away from being a bit of a type A organisation; in fact, I think this Committee would be the first to criticise us if we did not exercise control or if we took undue risk. And that, of course, is a big question in the Ministry of Defence, when we are talking about dangerous capabilities, which have the ability to do great harm to human life, and indeed to budgets as well. So we do need to maintain control.

We will never get away from being basically a type A type of organisation, but type B organisations, particularly in this technologically enabled world, will have an advantage, and we need to take every possibility every moment we can to become—

- Q79 **Sir Bernard Jenkin:** Air Marshal Knighton, I will just point out that Stephen Bungay identifies the armed forces in peacetime as type A organisations but they transform themselves into type B organisations as soon as they are on operations. But he does not think you can be a hybrid; you are either one or the other. So what is your response to that?

Air Marshal Knighton: I know Stephen Bungay personally; he also wrote a very good book on the Battle of Britain. And the characterisation of the organisation is exactly as he describes it; I think it is entirely accurate.

We are an organisation that is hierarchical, that follows rules and that cares deeply about safety and getting things right. We recognise that and part of the work of the innovation programme that was announced in 2016 is trying to create and expand the sense of innovation by instinct, or being innovative by instinct, across the organisation.

One of the ways in which the Department has done this quite successfully over the last few years is to create pockets of type B organisations, whether that be the rapid capability office in Air Command, the jHub, which is part of Strategic Command, or NavyX, down in Navy Command in Portsmouth. It is about giving small groups of people precise problems to go at, and giving them a bit more freedom to take risk and be prepared to fail, as part of the process of creation and innovation. Actually, I think they have done that really quite successfully. There are some very good examples where that has happened, but it is a constant challenge for us and we are going to have to do better at it to deliver the capability that defence will need over the next 10 or 20 years.

Chair: Definitely.

- Q80 **Sir Bernard Jenkin:** I look forward to the day when a Select Committee says, "It failed. What a great learning opportunity!", instead of going in for the usual punishment. How do you drive and measure progress in this? Inevitably scrutiny, the Treasury and the NAO tend to drive type-A behaviour, so how do you measure the progress that we need to see in this?

Air Marshal Knighton: Measures of effectiveness are difficult, but one of the key areas of focus for us and where Charlie and I are driving the acquisition transformation programme with the support of Sir Simon and Sir Stephen is around time—the time from inception through to initial gate



or to main gate. Those terms are changing under MAID, because we think that by taking approaches that are risk-based, rather than boilerplate patterns that apply in all circumstances, we can in some places take out really quite considerable periods of time in the acquisition cycle. We will be able to measure that, but we will only be able to measure it over a long period of time. Many of our programmes take multiple years to design and develop. While we might want to shorten that by a considerable margin—taking a couple of years out, say, from the average—recognising and measuring what that average is over time will take us some time. It is a difficult thing that you have asked, Sir Bernard. We absolutely recognise that time is probably the key measure.

- Q81 Sir Bernard Jenkin:** In the civilian part of the MoD, and, indeed, dealing with all the civilian organisations—perhaps Sir Simon can deal with this point—how are you going to get this type-B attitude, which is very prevalent in small businesses, incidentally? The small and medium-sized sector could be a much bigger generator of defence capability, but it has to do it correctly. How are we going to do that?

Sir Simon Bollom: This is absolutely at the core of what we want to do. One of the criticisms of the whole system, as has been said, is that it is too slow and too cumbersome.

If I can just pick up your point about UORs, essentially we come up with a top-level requirement, we go to market and we procure something off the shelf with little or no change at all. That gets it into the hands of the operator more quickly, but the downside is that it probably does not meet the whole of the requirement, and it is probably not then an enduring capability that we can have in service for years.

The opposite approach is to take years and years figuring out what the requirement is, finding out you cannot afford it, possibly over-specifying what you want and finding things just drag on. Type-31 is a good example of where we have used the principles of MAID, taking a strategic outline case up front and specifying at a pretty high level what we want. The important thing is then to engage the market early and get that right balance between what is available in the market and what the customer can afford.

Another point that I think is vital to our aspiration—it was sort of covered in the conversation around F-35—is that we need to be more open to incremental capability, which means that we get a basic capability into service that is sufficiently modular and has sufficiently open systems that you can then build on that as a result of operating it into service. So the Type-31 is, I think, a good example of doing inside two years what had taken over four years for the Type-45—the previous major warship requirement we did in a similar class. So we can do it. It is very empowering when we crack on with it, and absolutely if we are going to maintain the edge in terms of technology and capability, that is the style that we need to go towards.

- Q82 Sir Bernard Jenkin:** There are various ideas floating around that we



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should adopt something like the American DARPA to try to promote more innovation. We used to have DERA—the Defence Evaluation and Research Agency—but that was split, QinetiQ was sold off, and it turned out that DERA had a vast quantity of intellectual property that was very much underexploited and which, perhaps, we should have not sold so cheap. Then we have got the defence technical laboratories. What is being built into the system of a DARPA-type organisation to perhaps rebuild DERA's original capability? Who would like to take that one?

Sir Simon Bollom: That is probably not one for me.

Sir Bernard Jenkin: Okay, ducked. Sir Stephen?

Chair: Can you lower your screen again, Sir Stephen? You keep disappearing down it.

Sir Stephen Lovegrove: I am shrinking with old age. Certainly what we have at the moment is mainly in DSTL—Defence Science and Technology Laboratory—which is the very, very highly classified part of DERA which was left behind after the split off of QinetiQ. There is a great deal of work going on there which obviously we cannot talk about a great deal in this forum. The management of DSTL is intensely aware of the commercial opportunities presented by some of the discoveries and techniques that it makes and does have a really proper process of trying to commercialise those things where it can do so safely.

Recently, I went for two days to the west coast to speak to the Americans about the way in which they had organised this part of their defence establishment. The results of that were very interesting. I had thought that DARPA was one of those highly nimble, very aggressive commercial Skunkworks-type operations. It turns out it is not really like that; it is very deep basic research that is not being done anywhere else and has very long-term aims. There are a lot of failures but some very profound things come out of it: most notably missile technology and the internet, which are obviously very profound indeed. I am not sure that either we have that kind of thing in the defence establishment in the UK—such activity is mainly done in the universities—or indeed we would necessarily, quite in those ways, want to get it.

I think there is a bit of a misunderstanding as to what DARPA does. What is certainly the case, though is that it has pockets of acquisition capability, small units that deal with industries and particularly with SMEs in the technology sphere, in a very, very different way from the way we do; and there are lots and lots of lessons there that we need to adopt and we are trying to build in.

Sir Bernard Jenkin: Thank you—splendid answer.

Q83 **Chair:** Is there anything for you to add, Air Marshal Knighton? Obviously, you do not need to repeat what Sir Stephen has said.

Air Marshal Knighton: No, there is nothing for me to add.



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Chair: Nothing to add—thank you. Sir Bernard?

Sir Bernard Jenkin: No, I am done, thank you. That was excellent.

Chair: Thank you. I just need to bring in Sir Geoffrey Clifton-Brown on a point that he raised earlier, to clarify the record.

Sir Geoffrey Clifton-Brown: Earlier I quoted figures from the *Lancashire Post* about the number of BAE employees at home, which I am sure were accurate at the time, but I said that they had been furloughed. BAE have since been in touch with us to say they have not furloughed any of their employees and they proudly have 10,000 employees now on their sites, so I'm sorry if I in any way traduced BAE's record.

Chair: Thank you. It is very helpful that we have that clarification on the record in the session.

I thank our witnesses enormously for coming. We look forward to having some private discussions with you about the challenges ahead. We recognise that the situation is challenging enough without a defence review and the spending review. With covid-19 on top of that, it is very difficult, but that does not mean we should give any quarter in challenging you on spending taxpayers' money. Some of us have been doing this for a decade or more and we do want to get this right, but as I think you will have gathered from the tone of our questions today, we want to be part of a solution to getting a better approach to defence spending and project management, rather than just hauling you in front of us every year to berate you once again for the problems, because we have had three years in a row now and so we do need to work in a way that changes the system. Thank you very much indeed.