

Public Accounts Committee

Oral evidence: Improving defence inventory management, HC 66

Monday 13 November 2023

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Members present: Dame Meg Hillier (Chair); Sir Geoffrey Clifton-Brown; Mr Jonathan Djanogly; Mrs Flick Drummond; Mr Mark Francois; Peter Grant; Ben Lake; Anne Marie Morris.

Gareth Davies, Comptroller and Auditor General, National Audit Office, Tom McDonald, Director, Defence Value for Money Audit, National Audit Office, Adrian Jenner, Director of Parliamentary Relations, National Audit Office, and Marius Gallaher, Alternate Treasury Officer of Accounts, were in attendance.

Questions 1 - 105

Witnesses

I: David Williams, Permanent Secretary, Ministry of Defence; Vice Admiral Andy Kyte, Chief of Defence Logistics and Support, Ministry of Defence; Andy Start, Chief Executive Officer, Defence Equipment and Support; John Farrow, Director, Logistics and Support Operating Centre, Defence Equipment and Support.

Report by the Comptroller and Auditor General
Defence inventory management (HC 1793)

Examination of Witnesses

Witnesses: David Williams, Vice Admiral Andy Kyte, Andy Start and John Farrow.

Q1 Chair: Welcome to the Public Accounts Committee on Monday 13 November 2023. Today we are looking at the Ministry of Defence inventory. The Ministry of Defence holds more than 740 million individual items of inventory, valued at nearly £12 billion. When we looked at this as a Committee a decade ago, we highlighted that the MOD faced serious problems in inventory management, including inconsistent disposal and overbuying of assets. Despite improvements along the way, there are still some strong weaknesses, if that is not an oxymoron. There are many longstanding weaknesses that remain with the inventory management systems across the three armed forces that the MOD is responsible for.

I would like to welcome our witnesses. We have David Williams, the Permanent Secretary at the Ministry of Defence; Vice Admiral Andy Kyte, the chief of defence logistics and support; Andy Start, the chief executive at Defence Equipment and Support, also known DE&S; and John Farrow, the director of the logistics and support operating centre at Defence Equipment and Support.

We try not to use acronyms in this Committee. Much as some of us will know them, it is very confusing for anyone else, and sometimes for us too, so if you could bear that in mind and spell it out when you are describing something, that would be very helpful.

Without further ado, I would like to ask Mr Mark Francois MP to kick off for us.

Mr Francois: Gentlemen, good afternoon. Vice Admiral Kyte, you were appointed in September, so very recently, as new chief of defence logistics and support. No doubt that is CDLS in MOD speak.

Chair: Mr Francois is already breaking the rules on acronyms.

Q2 Mr Francois: What was the rationale for creating this new three-star appointment?

Andy Kyte: Thank you, Mr Francois, for the question. I would describe the impetus behind creating chief of defence logistics and support, or CDLS, and the defence support organisation as the realisation that the Department needed to create functional owners for a number of areas, including support, medical and intelligence. There are a bunch of other defence-facing functions. These were designed to look across defence in order to effectively bring a cohering, co-ordinating oversight of activity. For support in particular, it was a realisation that the siloed approach to



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the delivery of support, which the National Audit Office Report brings out, needed to be brought together. The impetus was a recognition that, in a number of areas, it needed to bring that more central co-ordination.

Q3 Mr Francois: Which top-level budget holder, or TLB, are you under?

Andy Kyte: I sit under UK Strategic Command.

Mr Francois: So you are under StratCom.

Andy Kyte: Yes.

Q4 Mr Francois: How are you going to interrelate with Mr Andy Start to your left, the head of Defence Equipment and Support? He has nearly all the support contracts. You now have responsibility for delivering more efficient support. How is that going to work? At the end of the day, he has the contracts, not you.

Andy Kyte: That is correct. In the way we are taking this forward, my role is ultimately to set the strategy, to interpret that into policy, and to set performance standards and the framework within which the whole of support will be delivered. I also set the requirement for a number of what we would call support enablers. As a very specific example, that might be the outload capabilities in RAF Brize Norton. My role is also to bring coherence across the frontline commands and, above all else, to assure the delivery of operational support.

If I look back to before I joined, it is fair to say that the relationship between DE&S and defence support was not as close as it should have been. The Permanent Secretary commissioned an internal review earlier this year, and one of the key conclusions from that review was that, in order to get after precisely what you are talking about, Mr Francois, we needed to be much more closely integrated.

What Mr Start and I are just exploring right now is the way in which we can achieve that. Our aspiration is to place me, remaining as a StratCom officer, on to Mr Start's executive committee in order to, effectively, bring a much broader operational support perspective to the business.

Q5 Mr Francois: That is all great theory and I am sure that it looked fantastic on some PowerPoint presentation in a main building. I see that the Permanent Secretary is smiling at this point, for the record. Look: many of these are very long-term contracts that are let over years. You arrive in this new post and you say, "I am going to set all these new standards. I want this done. I am going to set requirements," but many of these contracts are already let. The process that you are talking about is going to take years, because, as we all know from bitter experience, as soon as you try to vary a contract, the old cash register starts tingling. I can see what you are trying to achieve, but it is going to take years to make this happen, because the contractors stick absolutely rigidly to the contracts and the key performance indicators that they signed up for, do they not?



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Andy Kyte: It is going to take a number of years. I do not think that we could sit here and pretend that we are going to click our fingers and change it overnight. It is about working closely with Mr Start, and Mr Start may want to come in and just add a bit to this. You will have seen in the NAO Report a reference to the future defence support services programme, where we are absolutely identifying where the opportunities will exist in contract re-let terms to bring that greater coherence that we are talking about.

Q6 **Mr Francois:** I have to press to test on this, because all past experience is against you. Mr Start is going to love this. In Clive Sheldon's review of lessons learned in the Ajax programme, he highlights—and I will not read out the quotes, because Mr Start will be very familiar—that, on a number of occasions, when people outside of the DE&S chain on Ajax tried to get different things done and tried to get them to do it in a different way, there were some very robust replies from DE&S, some of which Clive Sheldon quotes in the report, that say, in terms, "Thanks very much, but we are procuring this vehicle. We know what we're doing and you can keep your ideas to yourself."

When this has happened before and people have tried to tell DE&S what to do, DE&S as an organisation pushes back very hard on other people, like you, trying to tell it how to do "its job," so this isn't going to work, is it?

Andy Start: You are absolutely right, Mr Francois, that, historically, those are behaviours that we have exhibited. As a number of you know, we are working hard to change those behaviours within my organisation to be much more transparent and much more part of the integrated defence whole.

Mr Kyte's role necessarily works with support champions in the frontline commands and within each of the delivery agents, of which my organisation is the largest. My support champion is John, who is sitting to my left. Mr Kyte has the challenge, as you exactly articulate, that he has to work across those frontline commands and all the delivery agents, which is not an easy task.

I have seen, however, in the support board that Admiral Kyte runs, that the behaviours are good and we are trying to move things into the right direction. There are opportunities within the wider defence design process to strengthen Admiral Kyte's role, and that is a conversation that is happening as part of defence design. Within DE&S, recognising the dynamics that you rightly highlight, Mr Francois, this is why we agreed to bring Admiral Kyte on to my executive committee. Because operational delivery is absolutely critical for us and, therefore, improvement across all of operational delivery, including the items that we are going to discuss today, is so important, I wanted to have a senior three-star on my board who was lobbying and driving around this dynamic.

Q7 **Mr Francois:** Historically, one of the classic problems in MOD



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procurement, again and again, is that no one really understands who is in charge, including the people who thought that they were supposed to be. On all of this, you have already candidly admitted, Admiral, that this is going to be a long-term programme of change. Who is actually going to be in charge of this?

Andy Kyte: Which aspect?

Mr Francois: The whole thing. You are going to bring about this massive change programme in supply. I have already highlighted that there is a big fault line between you and DE&S, which is a problem. I am just asking you two who is in charge.

Andy Kyte: Ultimately, it will be CDLS, so me. I own the defence support strategy. In terms of driving change, that sits with me.

Q8 **Mr Francois:** When push comes to shove, you will tell DE&S what to do.

Andy Kyte: With the Permanent Secretary's authority, yes.

Q9 **Mr Francois:** Is that right?

Andy Start: Yes.

Mr Francois: Crikey. I will believe that when I see it.

Q10 **Chair:** Mr Williams, did you want to add anything, as you are the one who has to give the authority?

David Williams: The only thing that I would add is that, in terms of the transformation of support, there is a particular focus over the coming years—and I am sure that we will get into this in questioning—on the transformation of our IT systems and bringing together our sources of data. There is preparation for the follow-on to the current Leidos logistics arrangements. There is investment in warehousing.

Chair: We noticed your press release on warehousing.

David Williams: The timing was not deliberate, but there is a lot to get after that is not locked up in existing support contracts for individual platforms. As part of our defence design work, we are looking at the relationships between functions, of which logistics support under Admiral Kyte is a great example—particularly those functions embedded within Strategic Command—and not only Defence Equipment and Support under Mr Start but also the frontline commands. That functional, horizontal, end-to-end setting of standards, driving transformation and thinking about capability in the function is really important, but there is a tension—I use the word neutrally—between that horizontal focus and the vertical way in which the budgets flow within the Department.

Q11 **Mr Francois:** On that basis, how long will it be before we start to see material change as a result of this appointment, Admiral, and the new policies and strategies that you are going to create? How long will it take before we genuinely notice a difference?



Andy Kyte: You can notice a difference already. It may not be readily apparent at your level, Mr Francois, but we are already seeing a change in behaviour and a change in culture. The way in which the Department worked together across all three single services and Strategic Command in order to bring the evidence together to inform the £1.9 billion investment in resilience is an example of where chief of defence logistics and support can bring all this activity together. We also have a number of lines of activity and programmes in place, such as the digital modernisation work that the Permanent Secretary has referred to, where, through my governance and through my ownership of strategy, we are getting to the point where people are beginning to look and think right across defence.

There is still a lot to do and I would absolutely recognise that. For example, what I have to be able to do—and this is the defence design work that has been referred to—is have more teeth. I have to be involved more intimately in the strategic balance of the investment process. I have to have the ability to hold people to account, including Mr Start in the DE&S. That is, in theory, going to be in place, if I can win the argument—and I believe that I can—by early in the new year. We would imagine that I will be on the exco, again, early in the new year, so it will then start to play through. We have a lot of work to do, but I believe that, next year, we can start to bring some real, tangible difference to the way in which we delivered support in the past.

Mr Francois: Lastly from me, there is a vast number of legacy systems within the MOD for support.

Chair: Figure 2 on page 21 is useful.

- Q12 **Mr Francois:** The three services, just in the way they have evolved down the decades, have their own. It is quite a mix of spaghetti, in a way. How is your appointment going to rationalise that into a far more efficient and effective system? Over what timescale will you be able to do that?

Andy Kyte: Are you talking about digital systems now?

Mr Francois: That is the whole point. Some are digital, some are analogue and some are paper.

Chair: Some are 40 years old.

- Q13 **Mr Francois:** There is a whole mishmash. How are you going to turn this around, given your new appointment? By the way, none of these criticisms are personal. This is all based on bitter experience, I assure you. How are you going to take all these very different systems of very different genealogies, as it were, and turn all of that into a far more effective and efficient system?

Andy Kyte: After the support to operations, the digital modernisation programme that I have inherited, which you will see referred to in the NAO Report as business modernisation for support—Chair, please allow



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me to call that BMfS; otherwise we will be here all afternoon—is the programme that is going to take this forward.

Chair: This is figure 3 on page 25, for anyone who is following.

Andy Kyte: I am not going to deny that it is going to be a challenge. Our digital delivery partner described it as being one of the most complex digital programmes in the public sector, because it is pan-defence. It includes the whole of industry. It will top out at about 65,000 users. Of course, there is that absolute imperative to maintain operational outputs throughout the transition.

I would say that we have made some really good progress. We have taken the number of applications down, as referred to in the Report, from 250 in 2010 to about 89 where we sit today. By the time we mature the programme at the back end of the decade, it will be down to about 20.

Mr Francois: We will be down to 20 systems.

Andy Kyte: There will be 20 applications, but that will be invisible, because it will be behind a common user portal.

Q14 **Mr Francois:** Just to save time, you are aware that, in terms of these big digital programmes, the MOD's track record as a whole is not what one might call exemplary.

Andy Kyte: Yes.

Q15 **Mr Francois:** So you are slightly betting against history here.

Andy Kyte: We are, but we are an organisation that—and I am an officer who—learns lessons. Throughout my operational career, that is what I have kept myself true to: "What lessons can you learn?" I would give you three or four examples of where we are learning from NAO Reports and previous Public Accounts Committee hearings.

First, we have absolutely been pragmatic in our assessment of what good looks like and how quickly we can get there. We have adopted an incremental approach and have spent the first period of that time on stabilising and modernising. You are absolutely right to call out the legacy systems that we sit on, but we have invested with our delivery partner to ensure that we have stabilised, built in the resilience and modernised where we can, so that we can then build on that as we go forward.

We have also divided all of this up into thematic areas that you can take to market. We have a theme that looks at engineering support. We have a theme that looks at warehouse and inventory. We have a theme that looks at movement. Our plan then is that we go out to market and build on best-of-breed, commercial, off-the-shelf software. We were clear that it is not just about replacing the legacy, but about a whole business process change. We are going to have to change business process. We are going to have to change the operating model. We are going to have to change the way in which we deliver training.



Q16 Mr Francois: There is never enough time in these hearings and I do apologise for cutting across you. I will try to be quick, because other colleagues want to come in. When you say, "We will design what we want and then go to the market," just to be clear, you want a lot of these changes to come in by the end of the decade, but at the moment we do not have any contractor—IBM or Fujitsu, for example—under contract to deliver them. We have yet to run competitions for those systems. We then decide who is going to win, they build it and it comes in, yes?

Andy Kyte: We do have people on contracts already. Boeing Defence UK is the company that delivers bridging the gap.

Q17 Mr Francois: Boeing?

Andy Kyte: That is correct: BDUK.

Mr Francois: After Wedgetail, that is not a good start.

Andy Kyte: They deliver the bridging the gap contract, which is what maintains our legacy. We move to a new warehousing and inventory management system next year, which then replaces the two oldest systems—CRISP and Stores System 3. The key is that we have now brought on to contract the delivery support partner, which came on to contract about two weeks ago, which is Content+Cloud, supported by Accenture.

Another important criticism in NAO Reports in the past is the availability of digital skills within defence. We are bringing in a digital support partner. I am bringing on to my board a digital non-executive director. We have access to non-executive directors in Mr Start's organisation as well. I took myself through a four-month secondment with digital industry. We are bringing all that together.

The way in which we are approaching this is that we are pragmatic in the level of ambition that we are setting ourselves. We are focused on getting a minimum viable product into the hands of the user as quickly as we can. What is most important about this is that it has to meet the frontline requirement. If this does not improve the ability of our soldiers, sailors and aviators to deliver what they have to deliver at the frontline, we are getting it wrong.

Mr Francois: Ajax was meant to meet a frontline requirement. It is seven years late and it deafened its crew, so just telling us that it is meant to meet a frontline requirement cuts no ice.

Q18 Mrs Drummond: Are you taking any lessons from the retail sector, for instance, looking at supermarkets and others, which are very good at turning over stuff very quickly?

John Farrow: Yes. My background is in automotive and aerospace. Through the Leidos contract, we have brought into our organisation other people who still work in industry today and link into their other partner



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operations. We do lots of comparisons between ourselves and retail. For example, the Amazon conversation is a live one all the time.

It is interesting. There are lots of similarities, but there are lots of differences as well. From a retail point of view, you probably have a smaller number of lines. A large supermarket would cover something like 90,000 product lines, and smaller ones slightly fewer. With stock against those items, we are currently at half a million items, so that scale is very different, as is the complexity of what we deal with.

We have consumable items, where it is comparable to retail: get them in quickly and out quickly. These are quick-turnover, large-volume items. We also have repairable items. For example, we hold vehicle engines on the shelf and will be repairing them at the right time, as well as some of their subcomponents. The retail industry just does not do that sort of thing. So it is that link between, if I can describe it, the inventory management systems and ways of working, of which retail would be a good example, and our engineering systems and ways of working. We have to link those two things together, which brings that level of complexity. In short, we are learning from all sorts of operations, but that extra complexity just makes it a bit more challenging.

Andy Start: We would be delighted to invite the Committee to come and see the centre that we have at Donnington for managing commodities. If you were standing in that centre now and looking at it, and if you then stood in an Amazon distribution warehouse, you would struggle to tell the difference visually. The tools, the techniques, the handling equipment, the way that the pickers work and the speed with which things turn around are very similar.

If you were at one of our other sites, where we might, for example, be managing a multi-tonne propeller for a ship, the handling of that would be completely different. There are lots of areas where it is the same and lots of cross-learning, and we deliver similar performances. In terms of our high-priority delivery, whereas Amazon will do its high-priority delivery in 24 hours, we will do ours in under 24 hours. There are similar dynamics and then some things that are very different.

Q19 **Sir Geoffrey Clifton-Brown:** Admiral Kyte, I wonder whether the present structure needs complete reform, before we get on to any of how you are going to deal with it. Paragraph 8 says, "The MOD's inventory management is dispersed among many different organisations, with no one individual owner of the end-to-end activity. Individual commands traditionally managed their own inventories, and separately developed their own policies, processes and ways of working." That is a recipe for disaster, is it not?

Andy Kyte: The stand-up of defence support and my post is a recognition that that needs to change. I absolutely would agree with you, Sir Geoffrey. Because of the governance structure that we have put in place and the strategy that we have in place, which has been signed up



to by all of the single services, we now have an ability to address that siloed approach and the fragmentation that you talked to.

Q20 Sir Geoffrey Clifton-Brown: What is the ability to address it?

Andy Kyte: Right now, I am cohering, co-ordinating and prioritising activity where I can. The challenge I have is that I have to do that through, in many cases, persuasion, through the strength of my relationships and through making arguments and building the evidence. Where I would like to get to—and that is the work that we are doing through defence design—is a point where I would have the power of authority to direct the single services to take action or not.

At the moment, I do not get involved in their balance of investment process. A single service might, theoretically, decide to take a savings measure in a part of the enterprise that would not be beneficial to the wider efficiency and effectiveness of support. Likewise, they may be investing in a part of the enterprise that I would not, on behalf of defence, see as being the priority. That priority could be driven by the level of risk that we are carrying or the operational design, or whatever it might be.

In effect, if you think about the defence supply chain as an end-to-end capability, starting in industry and going all the way to the frontline, whichever domain that is in, it has to be harmonised and optimised across its length. My job is to look across that length with partners such as Mr Start and the director general for commercial, and to ask, “Where should we be investing to address the most pressing problems?” For me, that is the really vital ground. If I can get those authorities, this type of fragmentation that the NAO rightly calls out can start to be addressed.

Q21 Sir Geoffrey Clifton-Brown: Mr Williams, commands guard their own individuality very tenaciously. We know that they do it in procurement and they do it here. I do not see anything in Mr Kyte’s answer that says that that particular bit of the structure is going to change. Unless that changes, you are going to get duplication and inefficiencies.

David Williams: That question of authority and accountability really is at the heart of the defence design work that we are currently undertaking. One of the major issues that we need to think through in the area of defence logistics and support or the integration of capability requirements in digital is that balance between a functional owner who is setting standards and encouraging, or a functional owner who is directing.

We currently default to quite a simplistic description of the MOD operating model as being a delegated one, but that clouds quite a confusing picture about where authority sits and who has decision rights, so it is an open question. The admiral would not be doing his job if he was not arguing for authority. Indeed, a range of functional owners in the Department are doing just that. It may well be that we want to shift the



dial on that question as part of our defence design work. It is a very live debate at the moment.

If it is not in too direct an authority like that, we nevertheless need to make sure that there are strengthened ways in which that functional, end-to-end view is taken into account in resource allocation decisions, in balanced investment, and in the way in which we think about risk and about readiness across the fence.

Q22 Sir Geoffrey Clifton-Brown: I hope I am not being unkind, but a short answer from a very long answer is that it is an open question.

David Williams: It is an open question.

Q23 Sir Geoffrey Clifton-Brown: We are not going to get very far until it is solved.

David Williams: We are actively working on that open question now.

Q24 Sir Geoffrey Clifton-Brown: The Chair and I were fishing in the same pond. If I can take you to figure 2 and, even before that, paragraph 103, and talk about the SS3 and CRISP army and navy systems, they are 40 years old. Does the Boeing contract aim to take over from those two? Is that what is proposed?

Andy Kyte: Beginning from about the middle of next year, we will transfer the warehousing inventory management, which is currently done across three systems: CRISP, Stores System 3, and then an air system called BWIMS, or base warehouse inventory management system, to give it its full title. We will shut down Stores System 3 and CRISP, and we will stand up BWIMS as the pan-defence solution. That is part of the BDUK work. In due course—it will be, on the current programme, about 2026–27—we will move to a commercial, off-the-shelf solution. The point is to first get rid of the two very old systems—you are right: it was 1982 and 1985 when those two were stood up—to bring in a single system, which will also allow us to cohere and harmonise the process, and then to move from there.

Q25 Sir Geoffrey Clifton-Brown: Going back to Mr Francois' question, what is nagging me at the back of my brain is what in that change is going to deal with the legacy stuff. You must have warehouses full of stuff. You do not know what it is or where it is. What is going to deal with that legacy?

Andy Kyte: In terms of disposals? Is that what you are talking about?

Sir Geoffrey Clifton-Brown: Just identifying it, because you do not know whether you want to dispose of it until you have identified it.

Andy Kyte: The transfer of data across to BWIMS will allow us to get us that visibility. At the moment, CRISP and Stores System 3 are so old that we do not have the functionality that we need. BWIMS was brought in around 2010 or 2011, so it is a more modern system. That will start to give us the access and the visibility. You should also remember that, in



the LCST contract—the Leidos contract that we referred to—we have their own warehousing and inventory management system, which gives us visibility of everything that we have there.

Going back to my answer to Mr Francois' question, this is an iterative process as we start to join these up, retire the legacy systems, bank the advances and the increases in resilience and visibility, and then build that over time.

Q26 Sir Geoffrey Clifton-Brown: Are you telling the Committee that, by 2027, you are going to have visibility of every single piece of kit anywhere in a warehouse anywhere in the world?

Andy Kyte: We should have it sooner than that.

John Farrow: If I could pick that up, there is a difference between functionality and visibility. Currently, we have good visibility of all of our pieces of kit. Granted, there will always be exceptions, but we have, I would say, very good visibility of our kit. We know that we have these old systems, and so, over the years, we have built across the top, effectively, a very simple dashboard focus, so we can drill into some of that information. That now allows more and more of our users who play with inventory all day long to look at the whereabouts of inventory and then make sure that movements are done correctly. The Leidos contract brought us extra functionality with that as well.

Visibility, certainly now, is very good. The functionality is what we miss, so the systems that Admiral Kyte was talking about will bring us that functionality. I was part of the team that brought BWIMS into the air domain, and it is a modern system. That was in 2014, so it is eight or nine years old now, but it is a modern system built on modern architecture. It is absolutely fine for what we want to do our job with. The fact is that we do not have that in navy or army, only in the air area. If we can bring that together in my role, I have much better functionality, but it is not a visibility thing, if I could say that.

Q27 Mr Francois: What is the approximate value of the Boeing contract?

Andy Kyte: The bridging the gap contract was £515 million.

Q28 Mr Francois: That is just over half a billion pounds. Do you look at a contractor's track record before you award contracts like that? That is a very large amount of money to a contractor with an extremely patchy delivery record.

Andy Kyte: I would have to turn to Mr Start, because it is delivered by Mr Start's organisation.

Mr Francois: You are working together already.

Andy Start: I was not around when we did that particular competition, but it is normal practice for us to review, as part of a PQQ process, the delivery performance of contractors. I suspect but do not know—and John



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may be able to tell me—that that may come off the back of some of their contractor logistics support delivery, which was very good.

John Farrow: While I cannot comment on the air side that you talked about just now, they have done a lot of the architecture, a lot of the design work and a lot of the operational work in the systems space for our existing systems, not necessarily 30 or 40 years ago but in the last 10 or 15 years.

Mr Francois: Boeing has won a large number of very big procurement contracts in the last few years, many of them non-competitively, in effect, and now we learn that it has another £500 million programme. I am just a bit concerned about the fact that, for some reason, so many of these fat, juicy contracts keep going to Boeing.

Chair: How competitive was it?

Q29 **Mr Francois:** How many bidders were there?

John Farrow: I cannot comment on that, because it was not through my organisation.

Andy Start: We will write in.

Mr Francois: Perhaps you could let us know who the other bidders were.

Chair: We will get to the gist of our questioning later when we talk about the industrial strategies around some of this work.

Mr Francois: I am so sorry, but I am professionally advised that there was no competition, so they got it single source, yet again. Perhaps you could write to us and explain how that happened.

Q30 **Sir Geoffrey Clifton-Brown:** That same paragraph reinforces what I was saying before. Each command operates its own core inventory management system, so how is bridging the gap going to work? Is it going to work on all four different commands—three plus the centre—or is it going to try to weld them into one?

Andy Kyte: It will be welded into one. The three that we currently have is what is being referred to in the Report—Stores System 3, CRISP and BWIMS. CRISP and Stores System 3 will be retired, and BWIMS will be the warehouse inventory management system that we have for the three single services.

Q31 **Sir Geoffrey Clifton-Brown:** I am still a little unclear about what this new contract will deliver. You say that you have visibility of every piece of kit in your inventory. I cannot believe that there is not some bit of kit somewhere in the corner of a warehouse that is 40 years old and nobody knows what it is.

John Farrow: I did say that there were exceptions.

Andy Start: It is about functionality.



Q32 **Sir Geoffrey Clifton-Brown:** What does functionality give you?

Chair: Give us an example of where this will make a difference.

John Farrow: In the air domain, which has BWIMS in place, it has much greater ability to move items within its space and to recognise items that are a certain repair status. I mentioned earlier that we have many items that will need a repair at some stage. The information on that system is much more detailed, so both the inventory managers and engineering managers can work with each other much more closely, for example.

That is what we do not have in the navy, in particular. With the system that is referred to as CRISP, they simply have two ways of showing inventory. One is that it is good stock—we call it A1 stock—and the other is E0, which means that it needs some sort of repair, but we do not have any description about what that repair is. Going back to the visibility piece, we know the location of the items, but we do not know the state of the items, and it is that functionality that we need across all of them.

Q33 **Sir Geoffrey Clifton-Brown:** There must still be bits of kit, probably wrapped up very neatly and maybe with huge instruction manuals, but you do not know what they are. They have been there for 30 or 40 years. There must be quite a lot of that.

John Farrow: I would not disagree with you at all. I am sure that you could find an item somewhere.

Sir Geoffrey Clifton-Brown: It is more than an item.

Q34 **Chair:** You are talking about functionality. Are you convinced that the data is good enough for that functionality to be usable? Picking up on what Sir Geoffrey was saying about bits of kit, if you don't have the right information, or if you can see that something needs repair but not what, where is the data behind that that will work in the new system and say, "This is the repair that is needed. It might take this long. It needs this much money" or whatever the functionality will show?

John Farrow: There are a couple of things there. If I could generalise, there are two types of stock, effectively. That is a very big generalisation. There is the stock that works within our depots that we run through the Leidos contract, and that moves from depot to depot. When we did that Leidos contract, a lot of work was done on the data, as you can imagine. It was a private company coming in through a tendered process, and a lot of work had to be done on the data. That is one big generalisation of data there, in that we are confident that we know where items are in our depots. The brand new facility in Donnington that my CEO referred to is an example. We know every single piece of kit and every single location for that, and we now know that in all the other depots that we run.

If I then look at the other big generalisation of stock that we have, which is in our frontline command units, whether an airbase, an army base or a naval centre, that is the area where we do not have those modern systems in place that Leidos brought in. They are working on their old



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systems. Their visibility is restricted to their old systems. It does not mean that they do not know where everything is, but they certainly do not have that level of knowledge about their repairable status, for example.

I absolutely guarantee that we will find instances where each of army, navy and air will have things on which they do not have the right data. I can give you an example, if you like. I will be really open. A little while back, when I came into the role that I am doing now, we were looking at what the largest piece of equipment was that we have in our storage in one of our areas. It was an item that was 900 cubic square metres, which is the size of a house. I immediately became interested in what could be the size of a house, and it turned out to be a Land Rover door panel. A long time ago, somebody had put the wrong dimensions in.

Going back to my visibility point, everyone knew where the item was and what its description was. The cubic metreage is something that we have been trying to add, because it really helps us. As you can imagine, from a warehousing point of view, I need to know where I can store it. That was just one obvious example. As soon as that went into the system, somebody said, "Somebody has incorrectly input," and that comes back to our older systems, where there is a lot of manual input. We want to be using new data technology, where there is automated input of information straight from a supplier's sheet. That information is scanned straight into our records, and then we have absolutely precise information. I use that as an example just to give a flavour and being very open.

Q35 **Chair:** So there are still gaps in data.

John Farrow: Yes, absolutely.

Q36 **Sir Geoffrey Clifton-Brown:** At the top level, these two old legacy systems, which are 40 years old, are going to give way to the new Boeing contract in 2027.

Andy Kyte: The two old systems will go next year, starting from the middle of next year, and we will then have a single warehouse management system, which will run on until 2027, when we go to the market to look for a new, commercial, off-the-shelf solution.

Q37 **Sir Geoffrey Clifton-Brown:** That is the BMfS system.

Andy Kyte: It is all part of BMfS, but that is a particular strand where we will look to bring a commercial, off-the-shelf solution to warehousing and inventory management.

Q38 **Sir Geoffrey Clifton-Brown:** Are you going to compete that one?

Andy Kyte: Yes.

Q39 **Sir Geoffrey Clifton-Brown:** That will go out to tender, but your estimated cost of that programme is £2.5 billion. Is that right?



Andy Kyte: No. Under the BMfS programme, we have software for engineering support and asset management. We have software support for freight movement and people movement. We have a programme for the warehouse inventory management systems that we just talked about. We also have work to bring in a common user platform, which will give us access to various decision support tools. Through life, that contract comes out at about £1.8 billion, which starts rolling out from the back end of next year. The £2.5 billion that is in the NAO Report is, I think, an aggregate of a number of different buckets of money, including bridging the gap.

Q40 **Chair:** Tom McDonald, just clarify that that is what is in that bucket.

Tom McDonald: Yes.

Andy Kyte: I can lay that out for you in a separate answer, if you would like, but it is an aggregate of a number of different pieces of activity.

Q41 **Sir Geoffrey Clifton-Brown:** What concerns me about this transformation—and it is good news that you are thinking about how to do it—is that here we are and it is not due to come fully into effect, the Report says, until 2035. Well, you will tell us when it is due to come into effect.

Andy Kyte: It is probably more like 2029 or 2030 that we will have rolled out all of the software that really matters. For all of the ones that I just referred to, we have a programme that will deliver that by quarter 1 of 2029. 2035 is probably the through life.

Q42 **Sir Geoffrey Clifton-Brown:** It is the through life of the contract.

Andy Kyte: There is no contract, but the through life of the programme.

Q43 **Sir Geoffrey Clifton-Brown:** I think it said that there will be a contract—or several contracts.

Andy Kyte: Several, yes, and that is the point. We have divided this thematically and will take them to the market in lots. The first one that is out to the market at the moment is the competition for the engineering support and asset management software. That is currently out on competition.

Q44 **Sir Geoffrey Clifton-Brown:** How does that dovetail in with figure 4, and particularly the end of the LCST contract in 2028? Presumably, that gives you an opportunity to merge that programme—future maritime support, service provision and HADES—together. Is that correct?

Andy Kyte: Yes. There is a separate programme that I own, which is the future defence support services contract, or FDSS, as it is helpfully known. It has two real purposes. One is to replace LCST when that contract comes to an end, as you say, in 2028. You could also describe it as a once-in-a-generation opportunity to bring all of those contracts that are in the NAO Report between 2026 and 2028 into a single programme.



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There is the opportunity to cohere and to right-size those programmes. In a lot of those programmes, contracts were written and placed for a world in which we were looking much more at efficiency, value for money and just in time, whereas we are now looking at something to be much more just in case, much more resilient and able to do warfighting as opposed to just operate.

That is all coming together in that window, which provides us with an opportunity to bring that all together. We take our strategic outline business case to the investment approvals committee later this month to get approval to take that forward, because we are currently in the concept phase. That is the aspiration to do that.

Q45 **Sir Geoffrey Clifton-Brown:** Those are two huge bits of work.

Andy Kyte: Yes, they are.

Q46 **Sir Geoffrey Clifton-Brown:** What consultants do you employ to give you advice on this? This is very fast-moving technology in both fields, so how do you make sure that you, as the person in charge of this whole programme, have advice that is as up to date as it possibly can be?

Andy Kyte: For the digital modernisation piece, as I said to Mr Francois, we have a delivery support partner on contract. That is a company called Content+Cloud, supported by Accenture and PA Consulting. That external advice at the delivery level comes from there. I am currently looking at bringing in a digital non-executive director who was a CIO in both the private and public sector, and we will bring that experience to give me personal support.

On the future defence support services contract, we will have to go out to the market to bring in external advice. If we get through the approvals committee later this month, I will be putting in a case to bring in external assistance, because you are absolutely right that we would need to bring in external supply chain contracting advice to keep us on the right track.

Q47 **Sir Geoffrey Clifton-Brown:** Others will ask about staff that you retain. I do not want to go into that at the moment. Mr Williams, you can hear the Committee's unhappiness at having let this Boeing contract to a single supplier. You have plenty of warning that these very big contracts are coming up. Can we have your assurance that they will be properly tendered?

David Williams: That is certainly our planning assumption. The expectation is that we will be going out to market. You never quite know what comes out of an initial market engagement, but that is plan A.

Q48 **Sir Geoffrey Clifton-Brown:** I have just one more, very straightforward question about containers. You have a number of containers out there. The Report says, "Out of around 7,600 containers within its estate, the MOD does not know the location of around 4,500 of them." That is pretty worrying, is it not?



Andy Kyte: Chair, with your permission, may I ask Mr Farrow to answer?

Chair: My eyes were directed towards Mr Farrow, because it was on location and warehousing.

John Farrow: There are a few things about containers. First, we do not treat containers as inventory, and I will come on to some of the reasons for that. It is not a comparison to the way that we manage our inventory in any way, shape or form. There is no owner, effectively, for container management, and we do not have a demand signal either for containers. It is done very much on an ad hoc basis and has been over the years. That is a weakness and we have some plans in place for how we do that, which I can come on to.

Q49 **Sir Geoffrey Clifton-Brown:** Coming from a farming background and from a farming constituency, I know that a lot of expensive farm kit gets stolen. There are now some very good worldwide trackers on the market, so why can you not have a tracker on every single one of these containers, so that you do know where they are?

John Farrow: We have different types of containers, some that we own and some that we lease. We had a small resource in place, before the LCSD contract, that was managing containers. We did not have a tracking system at the time. The resource was absorbed into the LCST or Leidos contract when we did that. From a tracking point of view, it is a value-for-money decision around whether you spend the money and have a team of people monitoring and tracking them compared to the cost of the containers. It is a value-for-money conversation.

Q50 **Sir Geoffrey Clifton-Brown:** Just so that it is not quite as alarmist as it sounds, do these containers contain pretty low-level intelligence kit such as medical kit or clothing?

John Farrow: They will have nothing inside them. If I use my two very broad areas, where there are movements from one depot to another within the Leidos contract—for example, from Donnington to a site where we want to keep things for a longer time—we have complete tracking of those items. When the container with its items then goes to a frontline command—for example, an airbase or an army base—the team there will unload. We will know that, because, on one of our other systems, we get the fact that it has been receipted in. If there is no receipting for any items, that immediately flags up our signals. That is a daily reconciliation that we do.

It is about what then happens to the container when it is empty. From a priority point of view, if you imagine that frontline command, who have seven or eight things that day that they are doing, to go into the tracking system, which is very manual—it is another of our older systems—put in the location exactly, etc, and then manage that through is another daily job.



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Andy Start: If I may, we track the contents of the containers, so this is not about valuable contents. We know where they all are. It is about the metal shell around the edge. The metal shell is roughly £1,000 per unit, so they are relatively low-cost items.

Q51 **Chair:** They are not the same as big shipping containers.

Andy Start: They are of varying size up to big shipping containers, but the average price is about £1,000 per unit. The total value of the ones that we lease is about £3 million. When we move to the new BMfS system, we intend that it will come with a container tracking solution as part of the standard. The choice that we are trying to make is, recognising that the total value of these containers is quite small, whether it is worth spending the money on the software beforehand to create a modern version of the tracking software. We are running that trade-off at the moment, but, unless it is significantly less than £3 million for the software, we are better off just accepting the fact that we have piles of empty containers that are not that valuable sitting in the bases.

Q52 **Sir Geoffrey Clifton-Brown:** May I just challenge that? If my maths is correct, 4,500 containers at £1,000 each is £4.5 million.

Andy Start: Roughly £3 million is the total value of these containers. Remember that they are not lost. It is just that we cannot account for them all on one system.

Q53 **Sir Geoffrey Clifton-Brown:** If you cannot account for them, how do you know that they are not lost? Somebody might have been in there and pinched them.

Andy Start: There might be some missing, but it is not going to be huge amounts of them. The question is whether the cost of the software system to track them is cheaper or more expensive. We are running those numbers now, so we might decide that it is worth it, but it might be better to wait until we buy an off-the-shelf tracking solution as part of BMfS and get it for free.

Q54 **Mr Francois:** Mr Start, there are so many of these overlapping contracts. We are doing our best to follow you, but there are a lot of acronyms and a lot of contracts. Perhaps, after this hearing, you could provide us with a detailed note that lays all of these out. That would be quite helpful to the Committee.

Andy Start: Absolutely.

Q55 **Mr Francois:** The bridging the gap contract, which will bridge the gap until the long-term system that you are going to go to the market for has been designed and competed, is, as I understand it, a contract that was extended in 2022 to run until 2027. Boeing was the incumbent; it was extended and given to Boeing again. Is that correct?

Andy Kyte: Yes.



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Q56 **Mr Francois:** That is for £500 million over approximately five years. When that contract was extended, that would have been a natural break point, a bit like with a lease. You could have competed it. As it is such a large amount of money, why did you not compete it?

Andy Kyte: I cannot give you an answer to that. I was not in the job, so we will have to come back to you. I do not know the reasons why.

Mr Francois: It just seems remiss.

Q57 **Chair:** Can anyone shed any light?

John Farrow: Unfortunately, no; it was before my time.

David Williams: We could write, if that is okay.

Mr Francois: Perhaps you could include that in the note.

Q58 **Mr Djanogly:** I would like to talk about getting rid of items. To start with, I noticed that the PAC reviewed this subject 10 years ago. At that time, the Committee reported that the MOD planned to reduce its inventory by 35% by 2015. That was in two years, and we are talking about a book value of £3.4 billion. Did that reduction happen, Mr Start?

Andy Start: Since 2011, we have reduced the total book value of our inventory from £40 billion to £30 billion at gross value and, in terms of net value, once it has depreciated, from £16 billion to £12 billion. That is about a 30% reduction in net book value between 2011 and 2023.

Q59 **Mr Djanogly:** This is hardly a new problem, so the initial question is why the MOD is still finding it so difficult to sell unused equipment.

Andy Start: Some of this will be saleable and some will not.

Mr Djanogly: Or to get rid of it.

Andy Start: First, we have significantly reduced the amount of inventory that we hold. There is a trade-off in terms of how much inventory we hold, recognising that if you are operating to optimise your financial dynamic you minimise your inventory, and if you want to maximise your resilience you maximise your inventory, so there is a trade-off between the two and we have to decide how much we hold, in any particular space, of spares and other inventory for contingency operations. We will always want to hold a certain amount of inventory.

Q60 **Mr Djanogly:** Someone else can hold it for you as long as you can get to it.

Andy Start: Yes, and what we have learned through Ukraine is that holding some of your own inventory is really important. One of the dynamics around holding inventory is to make sure that we have inventory in different categories. John can speak in a minute about the fact that some of the inventory that we hold is ready now. Some of it is items that are awaiting repair but we want to keep. Some of it is contingent stock for operations. It looks like excess stock, but it is



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contingent stock, for example our retention of anthrax vaccine and other critical medical supplies that we want to have large amounts of on hand in case of emergencies. Then there is the stuff that we genuinely do not want.

The task is an exercise of getting rid of the stuff that we do not want. We have done a decent job in terms of reducing that, that is, getting rid of roughly £10 billion in gross book value. John led the work on Project Hercules, which focused on the air domain piece of that.

The challenge we have in terms of prioritising that is that we will always prioritise operations and enhancing capability over disposal. When we are short of resource, we will always deliberately deprioritise disposal, as long as we have enough space. At the moment, we do have enough space; we are at roughly 75% filled on our commodity piece. Why is this not the absolute priority? It is not the absolute priority, because the absolute priority is operational delivery and strengthening the force of our armed forces.

Q61 Mr Djanogly: In the meantime, am I right in saying that the amount of unserviceable kit is increasing?

John Farrow: It will fluctuate. If you look at it over a 10-year period, you will have peaks and troughs.

Q62 Mr Djanogly: Paragraph 14 of the NAO Report says that the MOD is not able to quantify the amount of unserviceable kit. Is that right?

John Farrow: We will know the total amount that is there in an "unserviceable" bucket. What we do not know is what that is. If I can describe "unserviceable", taking it down to that level will probably help.

Q63 Mr Djanogly: You just said that it goes up and down, but the NAO Report says that you do not know how much you have.

John Farrow: We have a total categorisation that we call unserviceable. That is a lump sum, and there will be a gross book value on that. In the NAO Report, what Tom and the team are saying is that, within that, we cannot tell exactly how much we are going to work on, effectively, during a particular year or during a particular period.

"Unserviceable" is an unfortunate term, because it has a negative sense to it. As the NAO rightly says, there are lots of good reasons for us to hold that. It might be that a manufacturer has moved on from making an item. If it no longer makes that, it is an obsolete item, but we have it on the shelf. We have not necessarily gone through the repair activity for that item because we have enough in our working day to manage and we have enough around us to work with.

It may well be that we come to the point where we need to bring that off the shelf and bring it into what we call our repair loop, going back in between us and industry, but we will not make that decision until the



point we need to because that is quite resource-heavy. The engineers and the repair teams will have to work on it. An inventory manager, working with the engineers, will make those decisions on a regular basis.

For some items, we need to have a critical mass of volume. Effectively, a manufacturer will say, "We can only put repairs through our system if you give us 100 of these items," and we might have 70, 80 or whatever. We wait and then we put those through. That is why I mentioned peaks and troughs. If they are very high-value items, you will put those through the system, but they will then drop off the system because those repairs will be done en masse.

Q64 **Chair:** I will just bring in Tom McDonald from the National Audit Office on this point.

Tom McDonald: Just to clarify that a bit further, what we say in 2.17 is that this is a real example of one of the difficulties of operating these old systems. The navy system in particular is problematic because it cannot record the reason why an item is classified as unserviceable. It requires someone else to go and inspect it. It may be that the item can in fact be put straight back on a ship or it may need a full repair, but the system cannot tell you that. All it tells you is that it is unserviceable.

John Farrow: That is absolutely right. As I mentioned earlier, the navy only has two categories: it is either perfectly working kit or it is not. That is the difficulty the navy has.

If you think about the manual process to go through that, you have to go to the item, look at it and inspect it. It might need a special inspection; we might need a test kit to do some testing on that item before we know whether it is right or not. In that whole process that you go through, you have to make a value judgment decision each time.

Q65 **Mr Djanogly:** Indeed, because if you do not know what you have, then presumably, if you do need it in an emergency, you bring it out to fix it and you cannot, you are going to have a problem.

John Farrow: In a perfect world, everything you would have on your shelf would work perfectly and you would only have those. We have legacy stocks, so we need to manage that in a really careful way with the resources we have and make those priority calls.

Andy Start: If you think about value for money, the biggest cost driver we have is around designing out obsolescence. If we have to go back to the engineers to redesign a product, it costs a huge amount of money.

Therefore, for complicated equipment—let us say a heads-up display for a fighter jet—we are better off holding old and broken versions of these items. Even though they are old and broken, we are better off keeping them. If all the maths says that you need a serviceable stock of 10, and then if the tempo of your operations goes up or you are unlucky and you need 20, it is great to have those 10 unserviceable items that you can



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then pay to fix rather than having to pay tens of millions of pounds to redesign a new HUD. That is why this is always a judgment call and it is not straightforward.

- Q66 **Mr Djanogly:** Thank you for that explanation. Paragraph 15 of the NAO Report suggests that MOD delivery teams in practice have been prioritising the new supply of equipment over disposals. In a war situation, you can understand that being the case. However, they also say that the people dealing with disposals are not incentivised, in effect, to free up warehouse space. Why is that the case? How could you address that?

John Farrow: In terms of disposal activity, it is true: in all the priorities we have during the working day from an inventory management point of view and an engineering point of view, we do not charge the commands for disposal activity. We would charge the commands for certain types of activity if they were getting rid of hazardous goods, for example. That is an actual charge to them. In terms of things like that, they pay money for that because we have to put that through special contractors to get rid of those things in a safe way.

There is no incentive for them to do disposals other than the fact that it is storage across the piece. On an airbase, in a navy base, etc, there is a reasonable amount of storage available for them so it becomes a lower priority. There is no doubt about that at all.

We are now trying to put cubic metreage targets on them. Rather than at value, we are looking at the cubic metreage. We are trying to put those in place. The CEO holds the air domain, the land domain and the ships domain to account every year on their cubic metreage targets. We have had some success with that, but—again, you are absolutely right—sometimes that goes down from a priority point of view.

- Q67 **Mr Djanogly:** I can see that if you have the space it is fine, but sometimes you clearly do not. The NAO is saying that you initiate short-term projects, as I think it calls them, to deal with emergency situations, which presumably is always going to be an expensive way of dealing with this.

Andy Start: It is worth saying that we have removed vast amounts of kit over the last few years. John has been leading that. You can probably tell me how many football fields' worth of kit we have disposed of.

John Farrow: Hundreds.

Andy Start: There is a weakness in our current operating model design within DE&S, which is that there is not a single owner of all of that. That means that the leaders who have gone after it really well, as they have in the air domain, have got more out of it than some of the other domains. That is partly related to workload.



We will be addressing that as part of the redesign of my operating model, which we are going through at the moment. John will end up owning all the resource associated with disposals, both the practical activity of disposal and the export sales team that he already runs. It will then be easier for us to keep the tempo of disposals running because John will have control of it. It will improve, but I just want to reiterate that, if push comes to shove, I will tell John to prioritise operational delivery because in the end that is our highest priority.

John Farrow: I am looking forward to putting my arms around that whole piece. Then I will have more levers to pull than I currently have.

Project Hercules has done £9 billion of disposals over the last 10 or 12 years. In the last nine months alone they have done about £800 million in disposals. They have a regular drumbeat of activity. They have a team in place that absolutely knows what they are doing and knows how to follow the process. In each of the other areas, like you say, we have had a certain amount of activity, and it comes down again and then it goes up.

My role going forward is to make sure we get that drumbeat of activity all the way through. We introduced something called Project Jupiter about a year and a half or two years ago. That was not so much purely just about the disposals; it was more about getting the governance and the processes into place, learning from what the air team had done and bringing those across.

We now have, hopefully, the right conditions to bring those two things together under one person so we can put our arms around all of it. I am quite looking forward to that.

Q68 **Chair:** Can you talk through how you might dispose of a bit of kit, whether you are cannibalising it for other use or recycling the precious metals in it? What are you doing? How do you break it down and how does it work?

John Farrow: One of the best examples I can give is the Defence Equipment Sales Agency, called DESA, which works under me. We had a number of weapons at our Donnington site. It would have taken many tens of thousands of pounds to transport those items to a safe place to dispose of because you have to put them through shearing machines and make sure they cannot be used, and then you get the metals out of them.

We managed to put a mobile shearing machine into the Donnington site. Effectively, we brought the equipment to the site. That reduced all the transport costs. We put £10 million or £15 million of gross book value of items through that process. That process makes sure that nothing can ever be used again, but, out of that, you start to extract some of the more valuable items.



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We are looking at other opportunities at the moment. The precious metals one is interesting. If you imagine the circuit board for a ship, a submarine or even some of our larger vehicles, they tend to have quite a lot of gold and other precious metals on them. At the moment, there are organisations that are looking very closely at how they can extract those metals in an easy and cost-effective way. We gain and they gain. Effectively, it is a win/win. There is a lot of that activity going on.

The other way we dispose of items is by selling them to other Government partners around the world. That might be an actual vessel—we recently sold a minehunter, for example—an aircraft or just an item. I have £300 million of Tornado items still in stock. They will be showing in something like the unserviceable category. They will also show as out of service.

Tornado is obviously long finished. I still have £300 million of items. We will not get rid of those until all of our partner nations are absolutely certain that they do not want to purchase any of those items from us. They have been purchasing regularly for the last four or five years, I suspect, whether it is Germany or Saudi Arabia. A number of our partner nations have been buying. Once they have said to us, “No, we do not want everything else you have,” we will put that through the scrappage route. Does that help?

Mr Djanogly: That is very helpful.

Q69 Sir Geoffrey Clifton-Brown: Admiral Kyte, you are responsible for the policy on this. Can I take you to paragraph 2.13 on page 33? The NAO says, “When we reported in 2012, we found that the MOD was not consistently disposing of inventory that it no longer required. Today, the MOD is still not consistently disposing of inventory it no longer needs, and this has resulted in large build-ups of obsolete and excess inventory in warehouses.”

That is pretty damning, is it not? You have had 10 years to sort it out since our report in 2012.

Chair: Our report was in 2013.

John Farrow: I will be really candid. I joined the MOD because of the last NAO Report back in 2012. I joined as a consultant. We brought in some specialists. I came in from industry, from the automotive and aerospace sector, along with some colleagues. It was over £40 billion in gross book value at the time. We came in to try to get that down. Hand on heart, I can say we have made really good progress on disposals over the years.

The problem is that we have purchased all the way through. For the last 10 to 12 years, we have been purchasing. We have reduced our average purchase spend on those consumable-type items quite extensively over that time. We bring less into the organisation. In the air domain, we have disposed of £9 billion of inventory over that period.



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We have made progress. I genuinely think we have made progress, but it is absolutely correct to say we can still do more. We go back to our last conversation about prioritisation. If I had all the resources available to me all the time, we would prioritise disposals and we would take more out more quickly. If I had all the systems in place that could identify what needs to be immediately repaired or the various stages of repair, again, I could work a lot more quickly to do that. There is absolutely no doubt about it at all.

We have those plans in place, as Admiral Kyte was saying. Going forward, those systems will be in place. We could do more, undoubtedly, but we have made progress.

Q70 Sir Geoffrey Clifton-Brown: To be fair to you, if you look at paragraph 11 on page 40, compared to when the Committee last reported on this matter, the net book value then was £17.7 billion; today it is £11.8 billion. You have made progress. The problem is that I am not sure you know what you still have.

If you go to paragraph 14 on page 11, which Mr Djanogly referred to, if you take the 20% that is marked as overstocked, the 18% marked as unserviceable and the 2% marked as past its out-of-service date, that is 40% of the total LCST-managed warehouse contents. That is an awfully big sum of items that are probably never going to be used.

John Farrow: If you do not mind, I would go back to some of the same points we have made. Some of that stock will be items where we absolutely—

Q71 Sir Geoffrey Clifton-Brown: I heard the previous answer. I accept that some of it will be. This is only £300 million out of the whole. This is only the warehouse stuff. This is a very small part of the whole. Even in that part, there still seems to be a lot of stuff that could be got rid of. I hear what you say about repairing some of it and bringing it back into service, but it seems that you need more careful management to decide what to dispose of.

John Farrow: What we really need—it is a “we” rather than an “I”—is to have those systems in place as soon as possible, which will allow us to have more data-driven decision-making. We have some very good inventory managers.

Q72 Sir Geoffrey Clifton-Brown: Can I stop you there? It seems to me that the only way you are going to start really to get control of this is when you codify it properly when it goes into the system and put a proper electronic marker on it. Otherwise, you are just prolonging the tail. When are you going to start that activity?

John Farrow: That is happening now within our commodities section. The Leidos contract absolutely does that. All the items that are coming through that contract absolutely have that.



We are really talking about our legacy stock. I mentioned Tornado. I cannot remember when Tornado went into service. I want to say it was the 1980s or something like that. We are talking about the legacy stock, those legacy items and the legacy labelling on whether it is the pallets or the item, etc. Today, modern systems will really struggle to pick those up. Does that make sense?

David Williams: Very briefly—we may move on to this anyway—in addition to the points that Mr Farrow has made, I want to pick up on one of Admiral Kyte's points earlier about shifting our focus from being primarily around efficiency to also thinking about resilience.

We want to get to the point where we have a better understanding of what within the unserviceable stock can be repaired and therefore is worth keeping, and to understand what is overstock but nevertheless might be needed in a crisis or a conflict. That definitely builds on the underlying data and the IT systems.

Our risk appetite, in light of some of the lessons from Ukraine, is swinging away from getting rid of everything we can and towards being really clear about what there may be value in holding for future uncertainties.

Chair: Yes, we are going to come to that.

Q73 **Mr Djanogly:** We are now moving on to the operational impact of inventory management. I am looking at paragraph 10 of the NAO Report. It says, "The benefits achieved"—through the Team Leidos LCST contract—"are affected by the scope of MOD's activity and demand, and as of May 2023, Team Leidos forecasts that the contract will achieve £403 million of savings over its life, against its current target of £369 million." Is that still the case?

John Farrow: Yes, it is.

Q74 **Mr Djanogly:** That is where we are. Okay, thank you. Could you just explain what the main benefits of this contract have been, please? Have there been notable omissions coming out of this contract? In terms of omissions, I am not talking about things that should have been covered that have not been covered, as in items. We are coming on to that. I am talking about the way the contract works.

John Farrow: Generally, it is a good contract. It has been seen as a very good contract. In terms of benefits, if you think about the number you just quoted, the £403 million in benefits, that is net of the investment in new facilities. As my colleague Mr Start just said, we welcome people to come up to the Donnington site to see how modern those facilities are.

We have a brand-new transportation system. It is an Oracle-based system. It basically allows us to make sure we know every optimised route for the items we move around the country and around Europe. That came in as part of the contract. We have really good green credentials.



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We have reduced our carbon footprint by about 28% since the contract has come into place as well.

We have brought new systems into place. We have talked a lot about systems already. Part of that contract and part of that net benefit was about bringing in brand-new systems that manage our warehouse inventory. More importantly, the one we do not talk about so much is the forecasting system right at the very front end. What we bought as part of that contract was a really good forecasting system.

Team Leidos works with an amalgamation of companies. One of them is very proactive in that forecasting space. This is about knowing what we are bringing into the organisation and knowing the quantities we need. That is partly why we have seen a reduction of the annual purchasing we make on consumable-type items: simply because we know better what we need to buy. All those benefits have come in. It is a net set of benefits.

To your point about omissions, I am sure we will talk later about some of the segmentation we could have done in the earlier part of the contract. We had to rework some of that segmentation. We had a blanket set of measures for performance at the start. We have much improved the performance overall; the performance has been genuinely really good, but we did not take it down to another level at the start of that contract, which we are now seeking to do and we have put in place in many cases. We have learned so much, and we will take that through to the next contract.

Andy Start: Just before we talk about medical—I am sure you will want to ask us about medical—the other big benefit we have gained out of that contract is that we have taken a portion of the problem, not the whole problem, and completely modernised it. We have completely brought it up to date. We have created a system that is now high-performing. Where necessary, it is giving 24-hour delivery, which is great, and it is really agile.

If I can be slightly out of protocol, Chair, I would just say a thank you to the teams who have been supporting Ukraine. That combined military, civil service and industry team has shown remarkable agility in mobilising stocks for Ukraine. I want to say thank you to Mr Francois and the HCDC for recognising that performance.

Chair: The HCDC is the House of Commons Defence Select Committee.

Andy Start: It does mean an enormous amount when these committees recognise these facts and, when teams have done a remarkable job, we get the chance to thank them publicly.

Chair: That is a fair point.



Andy Start: That agility has been a huge benefit in this portion of the total story. Defence made a decision—it was not me; it was somebody quite smart—to say, “Let us take a proportion of the problem, put it into that LCST contract and demonstrate that a commercial modernised approach to managing inventory, logistics and transport will work.” They have done that very successfully. The next step, which is the follow-on contract, is to widen that across the wider defence enterprise. That starts to get at some of the issues that Admiral Kyte needs to get at.

We have taken a fairly sensible risk-based approach by saying, “Let us take part of the problem and demonstrate that it works.” We now have the opportunity in 2028 to scale that up. That is the opportunity. I will pause there and allow you to move on.

Q75 **Mr Djanogly:** It is always good to have the opportunity to recognise success as well as the opposite. Thank you for doing that. Finally on this, we were talking earlier about things going much more smoothly at the top end, but when you go to the forward bases and equivalents the system starts getting a bit more ropery. In operational terms, how are you intending to roll out the good at the top to the bottom end?

John Farrow: Do you want to talk about how the next generation contract moves on from that?

Andy Kyte: Are you talking about in terms of the delivery of support services or more broadly than that?

Q76 **Mr Djanogly:** It is the organising of kit: the purchase, sale and getting rid of kit at the bottom end on a frontline basis.

Andy Kyte: That goes back to the disposal point, which is probably for Mr Farrow.

John Farrow: It is probably worth me making a comment on that one. Again, I keep using these analogies, but imagine that there are only two things in the world: small, fast-moving consumable type items, such as clothes, food, etc, and then much bigger repairable type items, such as an engine, a gearbox, etc. In that consumables space, we should absolutely exploit the learnings from the Leidos contract across everything. It does not matter where it is, whether it is inside an airbase or outside.

Q77 **Mr Djanogly:** Would that be you doing it or would it be you contracting out more?

John Farrow: It is to be agreed as we go forward as part of the programme. The next programme will get at how we do that. Today, I do not know the how; I just know we need to apply the lessons we have learned.

Q78 **Mr Djanogly:** Just to give me some idea, what proportion of the total is being efficiently managed and what proportion is not?



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John Farrow: Those more consumable items are the smaller proportion of our overall inventory. The bigger proportion, around 60% or 70%, is those repairable items. That is the harder one to crack. We can get at all of those faster-moving items such as food and clothing.

Chair: These are perishables.

John Farrow: They are perishable items. We can get at all of those and apply these lessons across them. The bigger challenge for us—it is a challenge—is going to be in that repairable space. This is not a type of activity that many people in industry do. I found this when I came from industry. Certain companies do their own items. Very few companies have the ability to put their arms around the massive variety of types of equipment we have.

Q79 **Chair:** It would be like Apple repairing things by other companies. It would not repair a Samsung.

John Farrow: It would be like Apple trying to do Samsung, IBM and everybody else, all at the same time and all to the same standard that it is expected to do for its Apple items. That is a really good analogy to use.

Andy Kyte: That is why the future defence support services contract—or the programme, I should say—is so important. There is that opportunity to bring the same LCST culture and approach to all those others, to right-size them and to bring them into where we want them to be. That brings that into context. It sits absolutely alongside the digital modernisation we have to do at the same time. The two are very complementary as we go forward.

Q80 **Chair:** Is there anywhere in the world that does this very well already?

Andy Kyte: I spent a couple of weeks during the summer as my preparation for this job with the US DOD. It has the whole question of scale to back it up, which quite frequently buys it out of a lot of problems, but it has something called the Defense Logistics Agency, which is DOD-owned and DOD-run. The DLA effectively does something very similar to the LCST contract. It does consumables, repairables and expendables. It also does energy and fuel. It has a similar siloed problem because each of the three environments has its own materiel command, army, air and sea. They are responsible for setting the demand signal; they are responsible for purchasing all of their repairables; and then they give them to the DLA to store. Interestingly enough, the DLA also has the same problem with disposals, ironically, as we do because it is cheaper for it to store items than to dispose of them.

Q81 **Chair:** Yes, but scale helps.

Andy Kyte: Scale helps. It has been able to look at our LCST contract because it absolutely sees that this is best in class.



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The other comparator we are taking a look at is the Australian Defence Force and its contracts. It has a similar organisation to Mr Start's DE&S, called CASG, which does all its acquisition. It also has a three-star who it has empowered as the defence logistics authority. The postholder who sits in that position is precisely where we want to get with mine. There are lessons we can learn from both of them. We are well connected.

- Q82 **Mr Francois:** Very quickly, Mr Start knows I chaired the Sub-Committee of the Defence Committee that looked into procurement. Contrary to popular belief, parliamentary Committees do believe in giving credit where credit is due. We were very impressed with everything DE&S has done to help the Ukrainians. I am very happy to reiterate that for the record and, as it were, to respond in kind. Thank you, Andy. Your people have done a great job on that. But!

Now, switching fire, Mr Williams, how many people are employed by the Submarine Delivery Agency in the MOD?

David Williams: Off the top of my head, I do not know. I would say 2,500 or 3,000 people. It is something like that.

- Q83 **Mr Francois:** I was very concerned to hear that the navy has trouble categorising parts. It is very narrow in the way it can describe these things. Admiral, you are going to work with DE&S to improve logistics and supply. Will you also do the same with the SDA—the Submarine Delivery Agency?

Andy Kyte: Yes, I will. I spoke with the chief exec of the SDA only last week on the back of the conversations I have had with Mr Start to look at exactly the same sort of relationship.

Mr Francois: It is an open secret—it has been all over the internet—that a couple of months ago not a single one of our six attack submarines was operationally at sea. They were all tied up. So, in terms of logistics and support, clearly we have to do vastly better with the SDA.

Some people joke that it is the submarine delivery agency that never delivers any submarines. This is a serious point. What you are going to do with DE&S is going to have to apply equally to the SDA.

Chair: It will have to apply right across the board.

- Q84 **Mr Francois:** Now, moving on to the logistics commodities and services transformation contract, the LCST contract runs for 13 years from 2015 to 2027. This seems to be good news. It seems to be running comparatively well. But interestingly, in letting that contract to a consortium, you avoided most of the large oligopolistic suppliers. You went for smaller, perhaps more fleet-of-foot companies. Is that one of the reasons why it has worked better?

John Farrow: I was not involved in the tendering process at the time—

Mr Francois: We have heard that a lot this afternoon, but crack on.



John Farrow: I seem to recall, from talking to some of my colleagues, that the last two or three bidders were actually a variety of very large organisations. The Leidos one that won it was quite an agile organisation that brought in partners. I mentioned that forecasting tool that it uses through TVS Supply Chain Solutions.

Q85 **Mr Francois:** The point I am seeking to draw you out on is that it did not go to what you might call “traditional” defence contractors. It went to some slightly different people, some of whom, I must confess, before reading the brief I had never heard of. None the less, it seems to be working very well, does it not?

Andy Start: It is definitely working well. Leidos is the old SAIC. It is the big US system integration play. So, it is a very experienced company that is perfectly adapted to this kind of problem. KN is a logistics specialist, so it brought in specialists that were not from the traditional defence industry but really understood logistics. That combination did bring in best practice in the way you just asked.

Q86 **Mr Francois:** That rather plays to Sir Geoffrey Clifton-Brown’s point, does it not? Logistics is a complex business so you went and got some non-military logisticians. Funnily enough, that tended to make things work a bit better.

There is one lacuna in this. It cannot all be praise or you would be suspicious. There have unfortunately been problems with the medical community and the LCST contract. Can you tell us what you are doing about that?

John Farrow: I have spoken about this with quite a few people who were there at the time, in the early days of the contract. The simple matter is that at the start of the contract we did not segment down to a low enough level in terms of the metrics we use to measure performance. We had a high-level metric in place. We set that bar quite high, and they achieved that bar. We put these metrics in place for the overall performance of the contract, and they achieved those.

Beneath that, there were sub-segments. Medical was one of those. The reason it did not apparently come into play right at the start is that the original requirements of the contract were set up with the existing targets as they were. There were targets already in place between the medical community and whoever was distributing at the time. Those same targets were taken into the contract. They were deemed to be okay at the time and they were built into the contract. We then set an overall level for the contract, at a higher bar, for Leidos to achieve. It achieved that.

What we did not see until a little bit later on is that the performance, particularly on medical, needed to be higher. It was not good enough to be at, at the time, a 90% level. For some items it needed 95%. For some items it needed 98%, etc.



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Bear in mind that the contract was let in 2015. The facility in Donnington was not finished until 2017. There was a time period in between those dates. Then the suppliers started to come through the new facility, and then we picked up the fact that the segmentation needed to be better.

Q87 Mr Francois: Very quickly, sometimes there is literally a lifesaving sense of urgency. If you need a particular device to save someone's life or you need to administer a drug very quickly, you either have it there when you need it or you have not. With certain drugs, the use-by dates are far stricter than when you buy ham in the supermarket or whatever.

Can you convince us that the contract is now being amended or improved in order to reflect that sense of urgency?

John Farrow: I would certainly like to try to. Two or three things have happened. The first thing that went in place was a much sharper focus in the incentivisation for Leidos. If you bear in mind how this contract was set up, it was all about efficiencies. We talked about the £400 million in efficiencies earlier on. It is very much an efficiency-led contract. Leidos would be incentivised for the efficiencies it made, and it did a really good job with that.

The problem with that is that the medical space is a difficult business to find efficiencies in. The prices from suppliers are quite high and the time it takes to get a project through could be quite long. You have to go through all the additional safety checks compared with another item that is not medical.

In around about 2019 into 2020, we changed the incentivisation. We basically took from Leidos a certain portion of its regular management fee, and we gave it back only if it hit time targets and was getting new projects and new items of equipment through the process in a timely manner.

Q88 Mr Francois: Is it now doing that? Have you, as it were, reinstated those payments?

John Farrow: Yes. If I give you a couple of examples, in the first five years of the contract, there were only six new projects a year for new medical equipment. Once we put that incentivisation through, it went up to about 35 or 36 projects a year. That absolutely helped.

We have also put more resource into place through Leidos as well. We have worked very closely with the medical community. We have worked very closely with the head of Defence Medical Services on this. We are just about to complete putting an extra 35 people with medical experience into the Leidos team. They work within the commands as well and within Leidos.

We are now seeing performance levels really going through. We set a 92% level for the average of all the fast-moving commodity type medical items. It is now reaching that level on a regular basis.



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Mr Francois: We also scrutinise the NHS, so you do not need to convince us that the medical world can be a bit complicated. For the sake of time, I will stop there.

Q89 **Peter Grant:** I want to look a bit more deeply into this. Mr Farrow, first of all, I have a daft laddie question. Paragraph 2.3 and the subsequent paragraphs talk about medical inventory and other commodities. What kinds of things are "other commodities"?

John Farrow: You could have all sorts of things. You could have small test kits, for example. A commodity in medical could be aspirin. It could be as simple as aspirin, effectively.

Q90 **Peter Grant:** Was the LCST contract only for medical supplies or did it cover catering supplies, cleaning supplies, clothing supplies and so on?

John Farrow: I am not sure. I do not think it is so much about catering and cleaning. It is more about medicines, clothing, food and those faster-moving items. The catering side comes more under the capital spend.

Andy Kyte: Think about common range items, anything that is consumable, anything that is used by all three services. That is the kind of stuff Leidos produces.

Q91 **Peter Grant:** Does that mean the way the contract was set effectively told the contractor that the MOD attached the same importance to delivering essential medical supplies as it did to supplying teabags or soap powder?

Andy Start: The contract took the agreed performance level we had historically had and rolled it forward. That is where the target for medical came from. The whole contract ended up coming up to a fill rate around 90%.

It is important to recognise that this is not about the doctor or the nurse having the kit available for immediate treatment. They should have that in their local stores, their medical bag or the kit that is on the ship. This is about replenishing that stock when they have got through the backlog they have. They should be holding a reserve stock; they should have sufficient stocks locally. This is about the speed with which we fill these things in. There is not a direct risk to life associated with that dynamic unless for some reason or other they burn through that local stock.

The one exception we had to that was something that was not predicted. We were using industry best practice, which is used in supermarkets and other places. In a supermarket or any other normal logistics operation, you take the stock with the shortest sell-by date and you ship that forward, which minimises the wastage and gives you best value for money.

The exception to that is when you deploy on a ship for three or six months. You then need a longer date. We did not capture that at the



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front end of the contract. Therefore, there were examples of where we were shipping product that did not have a long enough use-by date. We have corrected that by making a tweak to the management software. That is now working properly. We still have a bit of a job to do in terms of making sure everybody is educated properly to know how to do the ordering. That is a piece of work that we are working with the medical community to do.

- Q92 **Peter Grant:** Admiral Kyte, with the frontline experience you have had, you might be able to answer this one. Paragraph 2.5 of the Report—this report, like any NAO Report, has been agreed by the Department—says, “In some instances, units have carried increased operational risk because they have had to proceed without the capability to test for and treat certain medical conditions. In 2022 the navy assessed that, without a resolution, the situation presented a significant risk to life.”

That was last year. Admiral Kyte, are you able to tell us what kind of risk service personnel were being exposed to?

Andy Kyte: This is down to the shelf-life issue that Mr Start has just alluded to. We did go through a period where medical supplies were being received by units, sometimes before they deployed or while they were on deployment, and the shelf life was expiring. It is then a question of risk as to whether those supplies are still able to be used. That is where the risk to life will have emerged.

- Q93 **Peter Grant:** I would not imagine the navy would have used the phrase “presented a significant risk to life” unless it thought there was a significant risk to life. Mr Williams, as Permanent Secretary, who was responsible for creating this unnecessary significant risk to life for British service personnel?

David Williams: At the end of the day, the duty holder for the safety of deployments sits within the navy chain of command, flowing from the First Sea Lord down through the operational commanders. They will balance a range of operational imperatives against a range of the risks that they need to manage.

This is an issue that they have flagged and we have addressed. I do not recall it being raised at the time with Ministers or with the defence board as part of our risk conversations, but I would be happy to check that for the Committee, if that would help.

- Q94 **Chair:** This was in 2022.

David Williams: Yes.

John Farrow: Chair, if it helps, just to give you a feeling for the governance that is in place, we now have regular sessions—I have only been in this new role for five months and we have done two already that I am aware of, so I think it is every two months—between the senior



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team on our end that is looking after the Leidos contract and the head of Defence Medical Services, Air Marshal Clare Walton.

We have that regular backwards and forwards now, in terms of a governance structure and a drumbeat, that is looking at performance. The last time we spoke, they had seen significant improvements. We still talked about the fact we need to do more in the training, as Mr Start said, and make sure that we are educating people to use the system properly and to put longer-shelf-life items into the system correctly. The system works. It is just making sure that rigour of training happens.

- Q95 **Peter Grant:** Nineteen years ago, two young men from Glenrothes in two separate incidents were killed in Iraq. I laid a wreath in their memory yesterday. They are the only two names on our war memorial because the town did not exist until the early 1950s. Both of those young men would probably have survived had it not been for failures in procurement and logistics.

Eighteen years later, in 2022, the lives of British service personnel are still being put at unnecessary significant additional risk because of failures in logistics. When is the MOD and when are the individual commands going to learn from the mistakes of the past and get this sorted before there is further unnecessary loss of life?

We all understand, and service personnel understand, the risk they are taking when they sign up. They do not expect their lives to be put at risk because the command chiefs cannot get procurement right, even after years of mistakes. What is the answer to the question I asked earlier on? No one person is responsible for the risks those service personnel have been exposed to. Is there anyone who is individually responsible for that?

David Williams: The duty holder would go up the operational chain of command within navy command. I would be happy to set that out in a note.

- Q96 **Chair:** The question is really about the reassurance that this will not happen again. There will always be examples where there will be challenges in theatre, but Mr Grant's point is well made that people want to know that our armed forces are protected and not at risk from a logistical problem, though there might be a problem that is different to that.

Andy Kyte: It is worth saying that, in the governance structure I have now put in place, which we are developing, there is an escalation of risk process whereby I would hope in the future that these kinds of issues should be surfaced, which would allow me to then bring them to either the Permanent Secretary or the chief exec of the DE&S.

I sit on the governance process and board for the LCST contract as well. Again, it comes back to this point about giving my role sufficient authority to be able to look across defence, identify some of these problems, and step in and take the right action.



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Q97 **Chair:** It cost over £13 million to put this right. Was that partly due to extra personnel?

John Farrow: Partly, yes. There were some systems changes, but it was mainly the cost of bringing around 35 extra people with medical backgrounds into the organisation at different times.

Q98 **Chair:** It was quite a big gap. It was not just a little logistical gap. It was something that needed substantial investment. We need to be clear on that. It took roughly £13 million to sort it out. It was £13.1 million, I think.

John Farrow: Yes, a number of improvements went through.

Q99 **Sir Geoffrey Clifton-Brown:** I have three quick questions. One is to you, Mr Start, please. I am concerned that we have not really teased out in this hearing how and who declares a piece of kit redundant.

I will illustrate that by using the example in paragraph 2.6 on page 29. "It can take years for Defence Equipment and Support (DE&S) teams to complete the necessary air safety clearances, as it must be cleared on all platforms before use. It told us there are instances of new equipment becoming obsolete before it has received clearance." That is ridiculous, is it not?

Andy Start: In terms of who declares a piece of kit redundant, that is always the specialist design team within my organisation that is competent to make that judgment.

In terms of the specific air safety example that you gave, we have an issue with the speed with which teams are getting through air certification. Some of the medical kit is commercial and therefore has quite a short life. Relative to aviation timeframes, that is quite problematic. The issue has been identified, and there is now a specialist escalation mechanism to try to accelerate this.

If we needed to deploy, it is possible for us to use accelerated certification at risk for the particular operation that is being executed to allow the kit to be taken. We do that on a reasonably regular basis.

The problem with any equipment that is air-certified is that to clear it for a wide range of operational scenarios you have to go through a huge amount of analysis. We have a way of getting around that. If we need to get a limited release for clearance so we can actually fly a mission, we will say, "For this particular constrained set of scenarios, is this safe?" and then a judgment can be made by the appropriate duty holder.

Q100 **Sir Geoffrey Clifton-Brown:** Time is running out. Admiral Kyte, I have a completely different question for you. What lessons has Ukraine taught us about how we need to have inventory? The old theory was that you would fight for 72 hours and then hopefully the tempo would reduce. We now have a prolonged hot war.



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Andy Kyte: We have learned some particularly significant lessons from the analysis of the Ukraine campaign. I will probably say a few words, and I am sure the Permanent Secretary and Mr Start will want to come in.

Sir Geoffrey Clifton-Brown: It is a big subject. Can we keep an eye on time?

Andy Kyte: It is. Let me give you two or three. First, operationally, this tells you that any lines of communication, digital networks and infrastructure will all be vulnerable. You have to look at what happened to the Russian army in the early days of the invasion to see that your lines of communication are one of the weakest parts of your force.

What you therefore have to do—this is the work that is now being thought through; we have a big wargame coming up in the new year, which will look at this—is look at how to build in greater resilience to your support network and your lines of communication.

For example, if you go back to the Afghanistan days, during the entirety of the campaign, 60% of British casualties were due to people being involved in the force protection of convoys, whether that was stores or fuel. The more we can make ourselves genuinely self-sufficient and more resilient, the less vulnerable we are going to be.

Chair: Can you repeat that statistic?

Andy Kyte: It is a publicly known fact that 60% of British casualties were in one way, shape or form due to the protection of our lines of communication. If you carry that forward to a future conflict, the imperative to therefore change the way in which we do logistics is absolutely critical.

If you look at the technology space, we are investigating automation and drones for the movement of materiel. We are looking at additive manufacturing to be able to make our parts in situ. How do we generate electricity at the point of use through green technology? This is the other part of my job, if you like, that we are looking at.

Q101 **Sir Geoffrey Clifton-Brown:** The final question from me is to you, Mr Williams. The admiral's answer segues into this beautifully. It is all about how quickly you can get certain items of equipment. This brings us on to defence industries. I will use the example of the Northern Ireland factory that produces shoulder-launched missiles. It now needs to gear up its manufacturing capacity for a future of unknown wars and unknown capacity. Does that mean the MOD is going to have to start to step in and help that particular company or, indeed, other companies in a similar situation to step up capacity for an unknown demand?

David Williams: The resilience of our industrial supply chain in terms of the production of both new equipment and new munitions is definitely a lesson we are taking from Ukraine.



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To build on the admiral's answer, the availability, sustainability and supportability of equipment in theatres—that is, not just the production of new equipment but the spare parts and the inventory we need in order to maintain the fielding of equipment—are just as important.

In our granting in kind to Ukraine, we have been very keen to send equipment with spares packs and the inventory to support it. As we think about support going forward, that equipment support element is really front and centre, as much as new platforms and new munitions.

On the specific question, we have placed contracts with the company for replenishment of equipment that we have granted in kind. We are currently going through work on a munitions strategy. We will want to recover to a higher level in a range of these munitions than we had before Russia invaded Ukraine.

Absolutely central to that is an understanding about not only capacity but the ability to surge. What is the balance in terms of always-on production? What does that mean for our contracts? How do we surge in times of need? If we are making assumptions about the duration of our stockpiles, whether it is 30, 60 or 90 days, whatever the number might be, what do you have to do in order for industry to be ready to deliver on day 31, 61 or 91? This is very much work that Mr Start is leading for us.

Q102 Sir Geoffrey Clifton-Brown: That is a brilliant answer, but it does not quite get to the core of the question, which is this. A company, and particularly a smaller company like that one, is going to have to build up its industrial capacity for an unknown demand. We do not know what is around the corner tomorrow. God forbid we have our own war and we need to supply these things in earnest rather than to Ukraine, to which we can only supply what we have. In our own war, we might need to supply them very quickly in earnest.

A small company like that has to build up capacity for some unknown event in the future. Do the Government have to step in to help them build that capacity?

David Williams: Mr Start may want to come in, but realistically we should accept that, in a world where we are focused on resilience, we need to pay for some of that resilience in terms of production capacity now and surge capacity for the future.

Q103 Chair: Mr Start, do you have anything to add?

Andy Start: Very briefly, to the previous question, what lessons were learned? Allies matter; NATO must strengthen its stockpiles and improve its standardisation; and logistics and support matter.

The reason I raise that is that, within the NATO Conference of National Armaments Directors, of which I am one, we have put together the defence production action plan, which is designed to create a clearer signal to all of NATO's industry about the demand across NATO. All



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companies are selling across the overall market. In fact, we have already seen a very substantial ramp-up across NATO.

The UK contribution to that is strategically to create an overall munitions strategy. We involved industry at secret to develop that, so they are fully aware of the dynamics and the issues that they are trying to plan to, and that gives them a much clearer demand signal.

We have backed that up with cash. There will be roughly £2.4 billion of investment over the next couple of years to strengthen the supply chain through a combination of orders and supporting the improvement of resilience. We have an intention over the longer term to create an always-on-demand signal through the industry in order to create a more robust supply chain at a background level, with an understanding of the global markets coming through the defence production action plan to allow businesses to make investment decisions. It is not perfect, but it is a huge step forward.

Chair: You will not really know whether it is working until you need it.

Sir Geoffrey Clifton-Brown: Thank you for that answer. It is very helpful.

Q104 **Ben Lake:** This afternoon we have heard quite a bit about the importance of the transformation programmes, especially the future defence support services. I appreciate time is against us—we have actually run out of time—but I have a very brief question for you, Admiral Kyte. The NAO cited a few staffing issues. I read that the FDSS in particular is not yet fully resourced. Quite simply, why is that? To what extent is that having an impact on progress in the programme?

Andy Kyte: It is having an impact right across my organisation. In the two programmes in my organisation, to be very honest with you, Mr Lake, I have gaps of about 25%. That is pretty symptomatic of the workforce challenges we face. There are the challenges that we have with the civil service recruitment freeze at the same time.

Right now, it is about the prioritisation of where our most pressing work is. I am currently doing a piece of work to try to work out how I can bring my workforce to bear in the most important areas. We are definitely going to face a challenge in this space. I cannot sit here and deny that.

Q105 **Ben Lake:** That is quite a significant gap. One sympathises with the difficulties in trying to fulfil the programmes' desired outcomes. Does that sort of staffing gap threaten the 2028 completion date?

Andy Kyte: It generates risk. There is no doubt about that. With some sensible programming and prioritisation, I am still confident I can deliver against it, yes.

Chair: Thank you very much indeed to our witnesses. This is something we will keep a close eye on. It is interesting to see how, even within the



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timeframe for planning, things have changed, partly as a result of Ukraine. As Mr Francois summed up, there are good bits here—it is a bit like the curate's egg—and areas that we are still concerned about. We are heartened that you are not gung-ho that it is all going to be fine, but there are some challenges ahead.

Thank you again. The transcript of this session will be available on the website uncorrected in the next couple of days. If you want to make a comment, we can add a footnote. We will be producing a report on this in the new year. Thank you very much indeed.