



Defence Committee

Oral evidence: Aviation Procurement, HC 178

Wednesday 17 May 2023

Ordered by the House of Commons to be published on 17 May 2023.

[Watch the meeting](#)

Members present: Mr Tobias Ellwood (Chair); Sarah Atherton; Robert Courts; Dave Doogan; Richard Drax; Mr Mark Francois; Mr Kevan Jones; Mrs Emma Lewell-Buck; Gavin Robinson; John Spellar.

Questions 301-452

Witnesses

I: James Cartlidge MP, Minister for Defence Procurement, Air Chief Marshal Sir Richard Knighton KCB, Chief of the Air Staff Designate and Vice Admiral Richard Thompson, Director General Air at DE&S.

Written evidence from witnesses:

– [Ministry of Defence \[AVP0010\]](#)



Examination of witnesses

Witnesses: James Cartlidge, Air Chief Marshal Sir Richard Knighton and Vice Admiral Richard Thompson.

Q301 **Chair:** Welcome to this Defence Committee hearing on 17 May 2023. We will be looking at aviation procurement. It is a huge pleasure to welcome the newest Procurement Minister, James Cartlidge—you are very welcome, sir, to our proceedings today—along with Air Chief Marshal Sir Richard Knighton, newly appointed head of the RAF; and Vice Admiral Richard Thompson, who is Director General Air at DE&S. Thank you for your time this afternoon.

This is the last of our studies; we did a big study on the Army, as you know, and another on the Navy, so we will conclude with our look at aviation. Before we get going on our substantive proceedings, on aviation procurement, I have a couple of quick questions. We are waiting for the integrated review refresh Defence Command Paper to arrive. Do we have a date for publication?

James Cartlidge: The aim is by the end of June.

Q302 **Chair:** We look forward to that. Secondly, it came up in Defence questions on Monday that there were problems with the propulsion system of HMS Prince of Wales. Clearly, it was a very technical matter to do with the propellor shaft. Are you able to give any clarity as to how long it will take to make the repairs? When will the ship be back at sea? What effect will this have on the other aircraft carrier?

James Cartlidge: Briefly, may I say it is a great pleasure to be here? It is an honour to attend for the first time and to hold this brief. I look forward to engaging closely with the Committee. On sort of a point of order, my team will be in touch with Mr Francois and the Clerks about the Sub-Committee and the further investigation.

On this point, I am pretty sure that the Secretary of State said this, but it is certainly our aim that the Prince of Wales will return this autumn, as originally planned and that will include flying trials. That was the original plan: she had been anticipated to be, as they say, alongside for much of 2023. Obviously, there is considerable attention to this but, to that extent, she is on schedule from an operational point of view.

Q303 **Chair:** Okay. There was a cost incurred to the tune of £25 million, I understand. Who will pay for the repair?

James Cartlidge: The decision has not been made yet. That is something we are considering. I think you have had a letter on that from my predecessor.

Q304 **Chair:** Again, it did not clarify exactly. I suppose who is responsible for this is to do with the legal contract, given that it was done before it went to sea and therefore before the actual handover. So it is a contractual issue, perhaps to do with the subcontractor as well.



HOUSE OF COMMONS

James Cartlidge: I would not want to go into any commercial confidentiality, other than to say that we are considering our options on this. You are right that there is a £25 million cost.

Q305 **Chair:** My final question is to do with the role of China in our procurement processes. Is it the wish or determination of the MoD to weed out any Chinese influence in our procurement processes? Is that the new positioning, given where we are on removing China's influence on critical national infrastructure?

James Cartlidge: As you know, there is a huge amount of work across Government on that point. We have the new legislation. I recently attended the cross-Government Committee on national security issues. Obviously, that is all classified, but I believe we have recently taken an internal review of our own use of— There is a phrase about vendors that briefly escapes me. Sorry, it is about vendors of concern from an MoD point of view. Obviously, I cannot go into any detail on that, but it is something that we are very much focused on.

Q306 **Chair:** That is absolutely right. It is good to hear that. It is also important to recognise that this is what China does very subtly, buying up companies and influence. It is doing that with ports across the world. I understand that the China International Marine Containers (Group) owns a number of companies, including Albert Ziegler GmbH, based in Germany. They also own Visser BV, which is based in the Netherlands and produces the Boxer, which we are now purchasing. Could I leave it with you to find out whether any of the Boxers we are procuring and building actually have any connection with China through this ownership of a company?

James Cartlidge: I will have to look into that and write back to the Committee.

Chair: That's very kind. With that all done, let's move on to aviation procurement. Sarah, would you kick us off?

Q307 **Sarah Atherton:** Congratulations and welcome to your new post, Minister. You have had only a few weeks to get your feet under the table, but what has pleasantly surprised you in your remit for defence procurement?

James Cartlidge: Thank you very much. It is a pleasure to engage with you and your colleagues for the first time.

There has been much already in that short period of time. Is that a short period of time these days? I referred to the key thing in orals in response to Mr Doogan. Last week, I had the great privilege to visit Operation Interflex on Salisbury Plain and see where we are training Ukrainians. They are civilians—a management consultant, two students, all people from normal walks of life who within weeks will be back out in trench warfare. They are being trained by the British Army, alongside New Zealanders and Australians when I was there. I am incredibly proud of that, but a key point is that they are all going out with equipment that is



HOUSE OF COMMONS

of the highest quality, which we are providing very effectively. It is being done over a very short timeframe, with fantastic work down at Abbey Wood. We should be very proud of that because procurement in this war setting is about getting people out there with the best possible kit, unfortunately in these very short timeframes. I think we are doing work to be proud of.

Q308 **Sarah Atherton:** The 2021 Defence Command Paper reduced aircraft numbers across all domains quite significantly. You say the refresh is coming at the end of June. Have you had any discussions around revising the numbers or gaining that air capability from elsewhere?

James Cartlidge: That is a very good question, and I totally understand that there will be a huge focus on this. You probably know what I am going to say, which is that this is very much a live piece of work that we are doing. I cannot prejudge it, but when the DCP comes out—our target is towards the end of June—those are the sorts of issues that we will have to consider.

Q309 **Sarah Atherton:** We have received evidence that is quite critical of the MoD's acceptance of capability gaps. The Puma is due to retire in 2025, yet DE&S are quite frustrated with the procurement process for the medium-lift helicopter. It has been pushed back three times to my knowledge, and possibly four times. I understand it is now set to be signed off with the assessment committee. It needs to be signed off before it goes to ITN, and it could take a further six months for that process to go through. The Committee was told earlier that we would have the winning bidder by autumn. This is an emerging capability gap, so my question is: can you see what is going on here? What are you doing and what is the process for the medium-lift helicopter procurement?

James Cartlidge: Again, it is a very important and pertinent question. It is not for me to say what was said to you by DE&S, but it is certainly not a view that they have expressed to me, and obviously we work very closely. As you know, last May we issued the contract notice and the dynamic PQQ to invite expressions of interest, to enable us to draw up a shortlist of credible contenders. They were then invited to come forward and were notified last October whether they were on that shortlist. It is now a live tender and commercially confidential.

Q310 **Sarah Atherton:** Is there scope to extend the life span of the Puma?

~~Vice Admiral Richard Thompson~~ Air Chief Marshal Sir Richard Knighton: The Puma was originally going to be retired sooner than 2025. In the integrated review it was extended in order to fulfil roles in Cyprus and Brunei. It could be extended still further out to 2027, 2028—that kind of timeframe—but that decision has not been taken yet. That will be dependent on the progress of the new medium-lift helicopter competition, but also the options to replace Puma in Cyprus and Brunei. It is an Army-led programme and procurement, so I am not as close to the detail. As I say, it is feasible to extend Puma if necessary, but that decision has not been taken and it will be dependent on those other factors.



HOUSE OF COMMONS

Q311 **Dave Doogan:** Are those Pumas the Pumas that the United Kingdom bought off South Africa? Are the remaining 23 Pumas the ones that we got off South Africa?

Air Chief Marshal Sir Richard Knighton: They are ones that were upgraded about a decade or so ago. Several of them have been retired. I don't know the precise number that we have flying today.

Q312 **Dave Doogan:** Certainly the new medium-lift was supposed to replace 23 Pumas, six Dauphins and six Bells—three of each type. The problem, Minister, is that NMH seems to be afflicted by a habit that defence procurement in the United Kingdom finds difficult to break: keeping industry in the dark and then expecting them to deliver overnight, and also kicking the can down the road and inviting what is termed loosely a capability gap but what is actually a profound capability risk into the operation of our Armed Forces.

One thing that really concerns me, and I know for a fact that it concerns industry, is that new medium-lift was listed in the MoD's acquisition pipeline and then de-listed from the MoD's acquisition pipeline. That sends a really difficult signal to industry when they see that sort of flaky flip-flopping about. Do we need it? Do we not need it? Of course we need it, but when do we need it? When do we invest in training, skills, improvements, materials or the subcontract supply chain? It does not speak to an integrated approach to those projects between Defence and industry. That is a space that the MoD has occupied for a long time, and we need to get out of it. How do we get out of it? What is happening with NMH?

James Cartlidge: It is a perfectly fair question. I do not agree that we are flip-flopping by following, in effect, a standard tendering process. The key thing I said was that we had issued the contract notice and the response was evaluated to return a shortlist of credible suppliers, which were then notified. So they are not kept in the dark. The commercial actors in this have been notified.

The one other thing I can say is that there is a lot of complexity in this. We need to establish the parameters of the competition. This is not something that we have dropped, as you implied; we are committed to it. Yes, we are considering it, but I cannot say more for commercial confidentiality reasons.

Q313 **Mr Francois:** Minister, welcome to your new post. We genuinely hope you will be in it for a while.

The history of this programme—if you pardon the awful pun—is that it has been going around in circles for years. It was kicked off about six or seven Procurement Ministers ago. Will you tell us two things? When do you expect to award a contract to whomever it is? What is the initial operating capability date for that helicopter—when is it designed to come into service? What are the two dates, please?

James Cartlidge: We have not determined those answers, Mr Francois. Where we are now is we are working out the parameters for the



HOUSE OF COMMONS

competition itself. Obviously, we have the requirements, then we have to have the competition, and that will then inform points around the dates that follow on from that in the usual way.

Q314 **Mr Francois:** With respect, Minister, if you do not even know when it is supposed to come into service, you have not really got a proper competition yet. The criticism of this particular programme is that it has gone around and around in circles, with very little definition and very few hard dates of any kind. Today, in front of the Committee, you still cannot tell us when it will enter service. Do you understand the point? This has been highly criticised as a very vague programme.

James Cartlidge: I understand. You have been in this position—

Mr Francois: I never had the procurement job, unfortunately.

James Cartlidge: But you have been a Defence Minister. This is something I am having to get used to very quickly. There is potentially a lot of information, but a relatively limited amount I can say because of confidentiality. I say that in all sincerity. I have given you as much as I can of what we feel is acceptable—

Chair: We have lots of progress to make, and we have a lot of other aircraft types. You are absolutely stepping into this world, Minister. We spend a lot of time looking at the fact that the decision making is slow. The two rotary systems exist already; they are not new inventions and I have sat in both these aircraft. People are waiting to be given the green light. It requires somebody to make a decision. That is the message from here, loud and clear.

May we move on to question No. 2? Before that, thank you very much indeed for our fruitful visit to DE&S at Abbey Wood. I want to put that on the record. We had a full day there, and it was much appreciated.

Q315 **Dave Doogan:** What are the key lessons of Ukraine for the employment of air power in modern warfare? For a couple of decades, it has been possible for the United Kingdom and its allies to exercise air power in a relatively—profoundly, actually—uncontested way, although that is not to say anything to diminish the quality and standard of airmanship in the RAF or the air forces of our allies. Ukraine, however, is a different thing. What lessons have been learned over the past 14 or 15 months of that conflict?

James Cartlidge: I will give one general answer first, because clearly you will want to hear from the CAS Desig. It is a lesson that we have known since the Second World War, which is the overwhelming importance of air superiority; if you do not achieve that, you can end up in what one might call gridlocked warfare with trenches and so on. To me, as a Defence Minister, that is one overall lesson.

The follow-on from that—something I will probably say in pretty much all my answers—is the importance of our alliance and the deterrents. I am talking about not only obviously the nuclear deterrent, but the deterrent



effect of being in a powerful alliance, so that we do not get into a situation in the first place. We need to ensure that that alliance is strong and has, in totality, strong air power. I pass over to the CAS Desig.

Air Chief Marshal Sir Richard Knighton: We could spend the whole of the rest of the Committee talking about this. We need to be careful that we do not draw false lessons or jump to conclusions, and I have heard many commentators draw almost whatever lessons they like from it. As some of you have heard me say in talks at RUSI and elsewhere, from what we are seeing in Ukraine I draw three big strategic lessons and a number of more tactical and operational lessons, which I will talk through quickly.

Strategically, the point is exactly the one the Minister makes: fundamentally, we do not want to get into the kind of fight that we see in Ukraine today—that horribly attritional trench warfare that we thought was a thing of the past. Part of the reason why the campaign is unfolding in that way is that neither side has been able to exercise air superiority. That gives us a glimpse of the challenges of gaining air superiority in a future fight, and we have to be able to demonstrate that we can do that. I expect that in future we will have to be more prepared than we have been for the last 20 years to fight for control of the air. That will probably be limited—limited in time and limited in geography—but without it you cannot deliver any kind of military effect, either from the air or on the ground.

Q316 **Dave Doogan:** Will it not also be limited in terms of aircraft from the UK point of view? My understanding of the F-35's role is that you send in that high-end, peerless—allegedly—aircraft, which then operates basically as the ringmaster, which controls the aerial combat environment, and send in fourth-generation aircraft en masse to do the actual spadework of combat, securing superiority in combat airspace. That is fine if you have enough F-35s, and I would be interested to hear your perspective on that— Actually, forget that question; someone else is going to go into that. You have been warned now.

Chair: Actually, you had gone into the first point, Air Chief Marshal Knighton, but I think there were two more to follow.

Air Chief Marshal Sir Richard Knighton: I will pick up on that, but your characterisation of the combination of fourth and fifth-gen combat air capability is exactly right, Mr Doogan. That is exactly how we see it as we think about it with our allies in NATO. Not to spoil the follow-on question, but General Hecker, who is the Commander, United States Air Forces in Europe, and I were chatting a few weeks ago and he said that by the early 2030s there will 550 F-35s in Europe belonging to NATO, and fewer than 60 of them will be from the United States. That is the kind of level of capability—

Q317 **Chair:** Not many are being used in Ukraine right now.

Air Chief Marshal Sir Richard Knighton: Correct. I have no doubt you will come back to that, Chair.



HOUSE OF COMMONS

The first point is about the importance of deterrence and credible capability. The second is air superiority. The third big strategic lesson I draw is that the side that is able to adapt the fastest is the side that will prevail. What we are seeing in Russia's hapless operations in all domains, but particularly the air domain, is the absence not only of training but of ability to adapt to the circumstances. In contrast, the Ukrainians, with help from their western allies, are demonstrating the most remarkable ability to adapt capability, to exploit technology, to change their tactics and to deliver a remarkable effect against what was a much larger, dominating air force in Russia.

Those are the big three strategic lessons. Tactically and operationally, there is a clear lesson about the importance of stockpiles and the industrial capacity that sits alongside that. We know that electronic warfare has been a critical enabler and a key battleground for both sides in the conflict. Our capability in electronic warfare definitely degraded in the early 2000s, with our focus on counter-insurgency, but it is improving with technology like F-35. We are seeing increasing uses of uncrewed systems and what that can do in terms of delivering strategic effect, as well as delivering the ability to overwhelm defences.

There is a fundamental point about our ability to act in an agile fashion. What Ukraine has been able to do is move its assets around, and Russia is having to do the same because, as some of the RUSI work shows, in the future battlefield it will be very hard to hide. I know General Deptula talked to the Committee about agile combat employment.

Those are the key important tactical lessons for us that have quite profound implications in terms of training, focus and priorities for equipment. As I say, I could talk about this all day.

Dave Doogan: I have a supplementary question. The Chair may have wanted to raise Estonia, but I think I'll raise it anyway. Your first point was on deterrence, and an element of deterrence is your enemy being aware of exactly that which you can pull together and generate in terms of a force. Peer adversaries of the United Kingdom will be fully aware of the scant numbers of Typhoon that are in possession and serviceable—tranche 2s and 3s—and that half an order of F-35s is in the process of being supplemented with further aircraft. Typhoon is spread across air-policing duties in NATO's eastern flank, constabulary roles in the British Isles—

Chair: Sorry, Dave, but we are wandering slightly into question No. 3.

Mr Kevan Jones: You are eating my sandwiches, Dave.

Dave Doogan: In that case, that supplementary can be disregarded.

Q318 **Mr Kevan Jones:** I think he has left a couple of sandwiches on the plate.

Air Chief Marshal, the issue is about mass—about having enough aircraft—but it is also about having other assets, including air refuelling, intelligence and suppression. A more important thing is to make sure that it trains together to be able to deliver that. That is the key thing. You



HOUSE OF COMMONS

mentioned the number of F-35s that will be in Europe, which I will come to in a minute. Should we as a nation not change our narrative a little bit and say that in any future conflict what we are going to do is make our contribution towards our NATO commitment, rather than give the impression that we will go up against a nation on our own?

James Cartlidge: I would like to think we do not give that impression. *[Interruption.]*

Chair: Perhaps we could all just check our phones and make sure that does not happen again. Please continue, Minister.

James Cartlidge: I would like to think that that is not the impression we give. I think the Prime Minister, the Secretary of State and all of us in Government understand the absolute importance of coalition and working with partners. The Secretary of State is abroad today on this very point. We have NATO coming up. The Prime Minister was with the Prime Minister of the Netherlands yesterday talking about F-16. Every aspect of our defence is configured upon the coalition and NATO, but of course we have our own national capability. As a nation, that should not be seen as the signal we send.

Air Chief Marshal Sir Richard Knighton: I completely agree with the Minister, as you might expect. The Integrated Review refresh is really clear about the importance of our alliances, particularly the centrality of NATO. Certainly coming in as the next Chief of the Air Staff, my focus in terms of international engagement will be particularly on NATO. One of the first trips that I make as the chief will be to Supreme Headquarters Allied Command, and also to Ramstein, where the international Combined Air Operations Centre is. How we work in train and fight together as NATO is how we will deter Russia.

I was out in Estonia in February and saw the Germans and the British Typhoon force operating side by side in the quick-reaction alert sheds there, and I talked to the pilots who had been scrambled earlier in the month and intercepted Russian aircraft and brought them back together. That kind of statement and demonstration of interoperability is an important part of demonstrating to our potential adversaries that this is what brings us our strength.

Q319 **Mr Kevan Jones:** I accept what the Minister said about statements, but the question is: are we making the contribution to NATO that is required?

Air Chief Marshal Sir Richard Knighton: Yes, and there is a process that we go through—the NATO defence planning process—which is where we establish what inputs there are. From a combat air perspective, the UK, alongside the US, has one of the most capable contributions into NATO of any of the NATO allies.

Q320 **Mr Jones:** Are you satisfied with the training aspect? You can have numbers—China has a lot of numbers—but trying to put an air wing together to suppress an area is very difficult. It is not just the numbers but how you actually deploy the various assets.



Air Chief Marshal Sir Richard Knighton: You are absolutely right. The ability to orchestrate the assets you have in order to deliver the effect is really complex and high-end. The pinnacle of that is the red flag exercises that we see out in the US, and we see that with UK, US and allied nations flying together, but increasingly we are also going to see this kind of training being done synthetically. I was at RAF Waddington last week and saw the Gladiator facility there, which is just fantastic. That enables us to bring together assets from land, sea and air, and internationally, to train and practise in really high-end, complex environments that we simply cannot replicate in the real world because it would either require too much airspace or we would give away our tactics. That is going to be the way we get that kind of training quality.

Q321 **Mr Jones:** We have mentioned F-35s, but I want to turn to them. How many F-35s have we delivered to date, and what is the expected timescale for delivering tranche 1?

Air Chief Marshal Sir Richard Knighton: We have delivered 30 to date. We will have 48 by the end of 2025, and you will know that the Department and Government committed to taking us up to 74, which includes replacing the aircraft that was lost last year. The delivery of the additional ones—tranche 2, if you want to describe it like that—will start before the end of the decade and will be complete in the early part of the 2030s.

Q322 **Mr Jones:** That is when we will have 74.

Air Chief Marshal Sir Richard Knighton: Correct. They will all be F-35Bs.

Q323 **Mr Jones:** And that is it, is it?

Air Chief Marshal Sir Richard Knighton: We have always said that we would make a judgment on whether we would buy more of those in the middle of this decade, and some of that would depend on the progress we have made—

Q324 **Mr Jones:** I have been around this subject for many years. We started out with a plan for 148 aircraft. Is a bit of honesty not needed here? If 74 is what we need for our NATO commitments—like you say, it is not just Britain; we are working with others—should we not just say that rather than keep up this nonsense of getting to a magical 148? We are never going to get to that number, are we? It creates a lot of hassle for you that, frankly, I do not think you need.

Air Chief Marshal Sir Richard Knighton: The original plan was 138. If you go back 20 years, that was the number that was used. The decision was taken in 2010 to reduce that significantly to only 48 and to reduce the number of squadrons and therefore the number of parts associated with it. As I have said before, it is still plausible that you can get to 138, but it depends on the decisions that we make associated with the future combat air system.

Q325 **Mr Jones:** I have an ambition to win the lottery tonight, but it is an



HOUSE OF COMMONS

aspiration. It comes back to the issues around our proposal, which the Minister mentioned, about working with allies. For example, I have no problem with the aircraft carriers deploying with US and UK assets on board. That is a force multiplier that we should be proud of and work with. Do we not need to be honest? We are not going to get above the 74 that you are going to order, are we?

Air Chief Marshal Sir Richard Knighton: As I have said and will keep saying, we will make the decision in the middle part of the 2020s, and a lot of that will depend on the scenarios that we see but also what happens to the future combat air system. That is a critical part of it.

Q326 **Mr Jones:** Let me ask it the other way. If we get the 74, with the 48 we have at the moment, is that enough for our commitments to NATO air policing?

Air Chief Marshal Sir Richard Knighton: That is right. If your wider question is, does the UK need more combat aircraft or combat air capability, the answer is yes. That is why the Government seem committed to the 48 and to go beyond that to the 74, but as you said at the start, it is not just about numbers; it is about capability. It is about investing in enhancements to Typhoon, further enhancements to the F-35 and, ultimately—I am sure we will come on to this—uncrewed capabilities, the big investment that we are making in the Future Combat Air System.

Q327 **Mr Kevan Jones:** May I ask one last question about the mix between the Navy and the RAF? Is every pilot trained to land on the aircraft carriers?

Air Chief Marshal Sir Richard Knighton: The short answer is yes. The carrier qualification comes around periodically, so some pilots will be doing that in the first part time, some the second time, but every pilot—Air Force or Navy—will be able to land on a carrier.

Q328 **Mr Jones:** When we get the full training of pilots, it should not really matter whether they are RAF or Royal Navy; they will both be able to land on carriers.

Air Chief Marshal Sir Richard Knighton: That is exactly right.

Q329 **Robert Courts:** I have two brief questions, going back to Ukraine. First, it was great to see the announcement about pilot training—any support to Ukraine that can be given is for the best. I appreciate that is for basic training and it is not MFTS, but can you reassure me that it will not have an impact on RAF pilot training?

Air Chief Marshal Sir Richard Knighton: We have not quite worked out with the Ukrainians yet exactly what that will look like. Until we understand that, we cannot absolutely understand the impact that it will have on our military flying training system. Clearly, it will require air capacity, but as the Secretary of State has said on several occasions, our priority is to support our Ukrainian brothers and sisters, so we will need to make a judgment of what impact there might be. As you know, and I have no doubt that we will come to this, we have a number of people who have already qualified through the elementary flying training system—who have



HOUSE OF COMMONS

been through that process and are in our system—so certainly in the short term I do not anticipate it having an impact, but we will need to understand that as we work out with the Ukrainians what they need.

Q330 Robert Courts: We will come back to that. Secondly, it was impressive to see Storm Shadow supplied to Ukraine, given how long it took to take it from Tornado to Typhoon. Are you able to share with us how that has been done? Is Sukhoi Su-24 airborne, or ground-based?

James Cartlidge: That is an operationally sensitive question, I am afraid. Sorry.

Q331 Chair: Okay, we will try to find out about that another way. I have a couple of points before we leave Ukraine—we will be moving on—and the first is on the capability that has been sent there. You talked about trench warfare, but what we have seen—I will give a poor analogy, because sandwiches were mentioned—is that if we go on a picnic and, Minister, you bring the sandwiches, someone else brings the drinks and the blanket, and I bring the cups and so forth, if one of us does not turn up, the picnic does not happen. NATO works on the assumption that people will turn up to fight on the day, but what is happening with Ukraine is that it is going around with a begging bowl, trying to find the necessary kit to win the war in Ukraine. That is the disjoint between our capabilities, what we are talking about, and the war that is actually happening. Do you recognise that there is that problem? It is about the coalition that is willing to step forward on the day, to provide the necessary kit needed to win the battle in a short time period.

James Cartlidge: The Secretary of State has frequently used the phrase “convening power”. We clearly have stepped up to the mark as a country, and alongside the US have been—

Chair: That is absolutely understood.

James Cartlidge: Within that, we have convened—to use that phrase—and enabled other countries to come forward. Other nations have now taken very positive steps. We can say that this is now a proper effort across our allies. That maximises the total effect going into Ukraine.

Q332 Chair: That is perhaps the point—but maybe for another day, more deeply. The capability of NATO is phenomenal—that stands alone—but what has been given to Ukraine is not enough. It is about to turn into a frozen conflict. That is the disjoint between what we have, in our box, in our capability, in NATO, and what is actually being given to the Ukrainians. The biggest deficit they have is in fast jets. That is very clear. We wonder why it is going to trench warfare, but you have said it yourself: nobody has air superiority. That is why it has ended up being a horrible ground battle. The question is: when will we realise that, so we can put the fire out?

James Cartlidge: Obviously, I can only speak for the UK Government, and we have just made that announcement about a very substantial contribution.



HOUSE OF COMMONS

Q333 **Chair:** I am not taking away from the British contribution; this is a collective effort, and we have convening power, but the point is made.

The second point I had to make is to do with the B variant of the F-35. It is the first time that I have heard—I think in answer to Kevan’s question—that all 74 of the F-35s are to be the B variant. Can you confirm that that is the case?

Air Chief Marshal Sir Richard Knighton: I can. I can also confirm that I have said it to the Committee before.

Q334 **Chair:** You have? Sorry, I did not really pick that up. I thought that there was still a question. Were you to go further to 138, what would they be, or have you made no decisions on that?

Air Chief Marshal Sir Richard Knighton: No decisions on that.

Mr Kevan Jones: We are not going to 138, Chair.

Q335 **Chair:** I do not think we will. I am not sure we will get to 74 either.

Air Chief Marshal Sir Richard Knighton: Just to be clear on the 74, that is funded, that is planned and that has been committed to by the Government. Clearly, you have to negotiate and you have to take the deliveries, but just to reassure you, that number of 74 was committed to by the Government.

Chair: Five E-3s were funded as well and that then disappeared, so it does not always happen on the day, does it? I want to get to Emma; Dave, do you have a quick one?

Q336 **Dave Doogan:** It is supplementary to this point. Vice Admiral, it would be far better if the Navy reinstated a proper Fleet Air Arm and kept all the STOVL B variants and the RAF got future aircraft and A variants.

Chair: That is why I was suggesting whether that debate had been had or not.

Dave Doogan: What would be the problem with that? That would be far more straightforward.

Vice Admiral Richard Thompson: I have been in the Fleet Air Arm for 38 years. I have gone through the transition through Harrier and the Harrier force. We are far more effective when we can operate the aircraft from land and sea. It gives us more productivity and it gives us more flexibility. So the fact that we have joint squadrons and we can operate the aircraft from land or sea—we are the only nation in the world that has that capability and the intent of doing it from land or sea—gives us far more flexibility. Personally, as a Fleet Air Arm officer, I support it—it is the right way to go—and I always have done.

Chair: Okay. Let’s move on to the heavy-lift aircraft.

Q337 **Mrs Lewell-Buck:** Thanks, Chair, and welcome, Minister. Turning to Hercules, the outgoing Chief of the Air Staff told us that “there will be a shortfall this decade with tactical airlift” and there will be a capability gap



HOUSE OF COMMONS

when the Hercules is retired early in favour of the A400. Yet, Minister, you and the Secretary of State have said that there will be no loss of capability. Can you clear up for me who is right?

James Cartlidge: I think it is not a loss of capability; it is a gain of capability, because the Secretary of State is clear that he believes this is a next-generation aircraft ahead of the Hercules. Just to be clear, as I said in oral questions and we all recognise, there is huge affection for the Hercules. It is still doing a fantastic job. Many countries in the world will continue to use it and clearly, we will make choices about our Hercules, which we are planning to dispose of. I just want to give you, if you like, a summation of why we think there is that credibility superiority. In a nutshell, it can carry twice as much 50% further and 25% faster—

Chair: Minister, if I can just pause there. As a Committee, we are very familiar with the stats of the two, and it is not a competition between one or the other; it is that they complement each other. In particular, something that Richard Drax has been very firm about is the niche capabilities of the Hercules, not least with single and double-chalk parachute jumps that come out of there.

Q338 **Mrs Lewell-Buck:** Chair, I was about to come in on that. Putting the affection for it to one side, this Committee was also told that some of the niche capabilities cannot be transferred to the A400 but that Ministers thought that that risk was tolerable. You are saying that it will be improved, but actually what we are hearing is that some of those niche capabilities will no longer be available. So what are those capabilities that we are losing?

James Cartlidge: I am going to come to CAS-Des in a moment. I appreciate that you know the stats. There are people around this table who know every single stat about every single aircraft in the world, pretty much. But I think there is one that is particularly important, and that is that on that crucial operation in Sudan, the maximum number of people carried out by the Hercules was 143 and the maximum from the A400 was 251. Yes, it is a—

Mrs Lewell-Buck: Minister—

James Cartlidge: I am going to come to the second point, forgive me. I know it is your first question. That number is incredibly important. We have to ask ourselves: if we were in that last batch of 250 evacuees and we knew it was the last plane out, would we rather it be an A400 that we knew could carry us all or a Hercules that would be 100 short?

Q339 **Mrs Lewell-Buck:** With all due respect, my question is about what niche capabilities we are losing—the ones that Ministers said were tolerable and the risk was worth taking. What are those capabilities?

Air Chief Marshal Sir Richard Knighton: Can I pick that up, because that was my answer? The bit you missed out was that I said “until 2025”. So there is a gap from when the Hercules goes out of service to when the A400M picks up and transfers all those capabilities. The niche issues where



HOUSE OF COMMONS

the gap is are around air drop and the kind of things we can drop from the aircraft. My point was that Ministers were fully aware of that issue when they made the decision, and nothing has changed for Ministers to change their mind. That is the gap that we have—18 months to two years.

Q340 **Mrs Lewell-Buck:** Can I ask about some of the reports this week? Has it been cleared yet for the Special Forces missions, such as dropping a boat off the back of a plane for rescue missions at sea? It was reported this week that that hasn't been cleared yet.

Air Chief Marshal Sir Richard Knighton: We don't comment on Special Forces capability.

Q341 **Mr Jones:** What about a Royal Navy boat, then?

James Cartlidge: I think that is a cheeky question.

Air Chief Marshal Sir Richard Knighton: I don't think we can get an HMS Type 26 in the back of an A400M, even though it is really big.

Q342 **Chair:** There are two others who want to come in on this. It is a vexing question. You say that you can't comment on Special Forces, but the trouble is that you are dealing with procurement, and you are removing an asset that will affect Special Forces. We know it will affect Special Forces because we have been told that. You are losing a capability—dropping boats out the back or throwing personnel out the back with parachutes and so forth. You say it is going to come in in 2025. The French are going through the same rigmarole, and they are suffering. They are meeting the same challenges that you are going to bump into yourselves. It is important that we understand this. You can't hide behind this shroud of secrecy over what the SF do. We know exactly what they do; that is actually very clear. We also realise what they won't be able to do if the Hercules is dropped.

Air Chief Marshal Sir Richard Knighton: I spoke to Director Special Forces last week specifically about his views on A400M, and he was really clear to me, following some training they had done earlier this year and Op Polar Bear—the operation in Sudan—just how impressed he had been with A400M. It could achieve all the potential courses of action—

Q343 **Chair:** We are going round the block here. We know that it is a bigger aircraft and that it is going to take more people, so you can take that instead of the Hercules. We are not saying one or the other; we are saying that they both complement each other.

Air Chief Marshal Sir Richard Knighton: Can I just finish off that final point?

Q344 **Chair:** You keep repeating it as if you are hoping you will shake us off where we are trying to go. We know that it is a bigger aircraft and that it takes more people; we accept that.

Air Chief Marshal Sir Richard Knighton: That is not what I just said, Chair. What I am getting at is that Director Special Forces said that A400M



HOUSE OF COMMONS

could do all the potential courses of action that they examined when they went into Sudan. The point is that they can do the majority of the tasks.

Q345 **Chair:** I am not sure all the SF capabilities were tested in Sudan, but let's explore that further.

Air Chief Marshal Sir Richard Knighton: That is true; they were not all tested.

Robert Courts: I am going to defer to Mr Drax, who wants to pick up the Special Forces thing, and then I will come in.

Q346 **Richard Drax:** As the Chairman said, they play a complementary role. There is a gap, as you said, to 2025. The Hercules was going to have another seven years, as I understand it, to 2030, so that gap has been forced upon you, I assume by money. We have spoken to the Special Forces—I am an ex-serviceman, and I still have contacts there. They are concerned about the loss of this aircraft, and from what I hear, the A400 still has problems. It still has issues coming. We hear that from the Airbus report. We were told yesterday that there are more issues to come. We heard a question in the House about the fact that in Sudan, two of the aircraft had problems.

James Cartlidge: No.

Richard Drax: No? Okay, that is obviously misinformation. The aircraft is still not 100% reliable, whereas the Hercules is a true, tested friend, not least of Special Forces and the Parachute Regiment. It is smaller, but I don't think big is necessarily beautiful. That is a misconception; it really isn't when you have such a good, proven aircraft, which we are now sadly getting rid of, presumably because of money.

James Cartlidge: On the money, as it were, it is a fact that when you are looking at what platforms you are going to have and all these big considerations, money is a factor. There is no getting away from that. To turn it around, I would say that, at this moment in time, were we to suddenly U-turn, having had a very managed, tapered transition to the position at the end of June, where the Hercules is withdrawn—

Q347 **Richard Drax:** Sorry, Minister, but it is not well managed. You yourself said that there is going to be a gap in capability. That is not well managed.

James Cartlidge: I simply said a managed transition, whereby it is gradually withdrawn and the A400 takes up the task lines and so on, but the point I was going to make is that were we to change that, there would be a cost that we had not budgeted for. That is absolutely correct: there would be the cost of having to maintain the Hercules alongside the A400, and there would be the forgone revenue stream from potential disposable sales. It is never a straightforward question, but you are absolutely right: there would be costs that we have not budgeted for, which would therefore mean that we would have to look at other items in the budget that would potentially have to come out of the plan.



Chair: I fear there is a sense of déjà vu to this conversation, and I understand where we are. Robert, do you want to move on?

Q348 **Robert Courts:** Can I focus in on some aspects of this? Yes, it is a legendary aircraft and we are sorry to see it go, but we do not have sentimental concerns here; it is capability concerns or capacity concerns that we have. There are three concerns over this transition. The first of them is about the Special Forces capability. You have addressed that, Air Chief Marshal: essentially, it will be transitioned by 2025—I think that was your answer. Obviously, we will have to keep an eye on that, but I understand that point. I am going to put that to one side, because everyone else has dealt with it.

The other two concerns are the ones that I want to address, which are, in any event, linked: its availability and the overall fleet size. I am going to look at those in particular, because they are what I am concerned about. When the Secretary of State says in the Chamber that there will be no overall loss in capability, obviously he is right. It is a bigger aircraft, it can carry more and it can carry faster, but no matter how good it is, it cannot be in two places at once. It is that, and the availability of task lines, that I am concerned about. When you were last in front of me with CAS, Air Chief Marshal, the figures that I gave on task lines came from November 2022. They were from a response to a written question, which said at the time that C-130J had 1,800 available task lines and A400 had 1,500. What is the position now?

James Cartlidge: I think the first thing to say is that I want to bring in the DGA on availability, because obviously this is about the supply chain and there have been some challenges—

Q349 **Robert Courts:** Forgive me; I want to ask about that, but I want to do that in a second. I have a specific point in my mind, and I will give you the chance to answer, but I just want to deal with the task line availability at the moment. What I want to understand is how many task lines C-130J has been offering to defence over the course of the last year, or at least since November 2022, and how many task lines A400 has been offering to defence. If you are expecting the latter to take over the former, I would expect to see a one-for-one replacement.

Air Chief Marshal Sir Richard Knighton: Shall I pick that up? Forgive me, Mr Courts; I will give you these numbers per day, rather than the overall number. I do not know what period that was over, so forgive me, but it gives you a sense of it. As of today, C-130 is delivering four task lines and A400M is delivering around nine—it will be 10 by the summer. In 2020, A400M was delivering only four task lines and C-130 was delivering around six, so there was a total of 10. So that situation has improved.

Your point about the fact that if you retire C-130, you lose capacity in terms of the number of points of presence and the number of aircraft in the air—of course that is right. That will force us to make decisions around priorities, and to move lower-priority freight and lower-priority tasks in other ways.



HOUSE OF COMMONS

Q350 Robert Courts: Can you write to us and give us some updated figures on those? You were very clear in answers back in November as to the amount of task lines that were available. The written questions are from 8 and 17 November. Can you get those updated in terms of the task lines available? Secondly, how many of each aircraft were serviceable throughout those months? That will put flesh on the bones of the point you have made. To be fair, both you and CAS last time were up front in accepting that there is a shortfall there. What I am trying to do is to quantify exactly what that is and what it is that we are losing.

Witnesses indicated assent.

Robert Courts: Thanks for that. The other point, which was mentioned last time, is about the further six by the end of the decade. Are you able to give us an update on that? That would assuage some of the concerns that we have.

James Cartlidge: There is no definitive update at the moment on that.

Q351 Robert Courts: Okay. I will keep pushing on that. That would deal with your U-turn point, Minister, which I accept. But further airframe capacity is what we need to be looking for.

James Cartlidge: In preparing for this, I came to your constituency, Mr Courts, to visit Brize Norton and meet the crews. I asked Air Commodore John Lyle, who is the commander of air mobility, "In July, could you do Sudan?" He said, "Absolutely." For me, what is absolutely crucial, aside from the other points, is that we would still be able to perform our critical commitments.

Q352 Robert Courts: I accept that, and you can do Sudan, but that is one operation in isolation. What I am concerned about is the air mobility forces being asked to do more and more. It is one of the most heavily tasked bits of defence anyway, and if it can do Sudan, fine, but it will not be able to do something else at the same time.

James Cartlidge: I will write to you again as a follow-up to my last written answer.

Q353 Robert Courts: I now turn to availability, on which I would frankly be grateful for your assistance. We had some written evidence from you on this—on the inquiry—which said that A400 had not yet reached the expectations that you would have and that demands were going to be made before Hercules retires. That point is hard upon us—it will be with us any time now. Have those demands been met?

Vice Admiral Richard Thompson: The challenge we were given was to get ourselves up to nine task lines as an average by April this year. The aim, as the Chief said, is moving towards 10 and then 11 and onwards as we mature the aircraft. Today, we are sat between eight and nine. That has come up by about 25% over the last 18 months.

Q354 Robert Courts: Can I pause you there to ask one further point? When a task line is declared operational and available for defence, that is at the



HOUSE OF COMMONS

beginning of the day. Do you update that if it goes unserviceable during the course of the day?

Vice Admiral Richard Thompson: Yes. We try to take an average from the beginning of the day to the end of the day, so it might not be the same aircraft that comes up. Over the last two or three days, we have had nine and 10 at 6.30 in the morning. That can subsequently change during the day but, fundamentally, it means that other aircraft could be coming online when other aircraft come back unserviceable. It is not necessarily the same aircraft, but fundamentally that is how we take an average.

We also take an average over a month, and we take an average over a quarter, because—not just on this platform, but on any platform—as you can appreciate, it goes up and down.

Q355 **Robert Courts:** Eight or nine task lines, which is of course the same figure you just gave me, are out of a total of what? We have 21 air frames at the moment, and the last is due to come—

Vice Admiral Richard Thompson: It is literally coming in this month—in a few days. It is literally being prepped as we speak.

Q356 **Robert Courts:** That is your aim, but it is not going to be your end point. You are going to want that 15, aren't you?

Vice Admiral Richard Thompson: No, it is not. This is our current one. Where we sit at the moment—out of a fleet of 21—we have a retrofit programme, which was a choice, because we decided to take the aircraft early to mature it. That retrofit programme will be between three and four aircraft going in and out, all the way out to 2025-26—

Q357 **Robert Courts:** By which time you will want to reach how many?

Vice Admiral Richard Thompson: We will be at 22 aircraft from now.

Q358 **Robert Courts:** At 22 aircraft, but how many task lines on average?

Vice Admiral Richard Thompson: We have not got an average of task lines out to that stage. We will sit at—

Q359 **Robert Courts:** You would expect to have about 15 or 16, wouldn't you?

Air Chief Marshal Sir Richard Knighton: By 2025? We will not deliver that by 2025, because the retrofit programme will continue beyond 2025. So, 10 by the summer, and I would hope that we would see that increase as availability improves. The big thing that Air Commodore Anthony Lyle will talk about is this issue around predictability. That is the work that we are pressing DE&S and Airbus to do to improve that predictability.

Vice Admiral Richard Thompson: It is about that. At the moment, there are three aircraft in depth at any one time, because they have to be repaired.¹ Out of the remainder, we are looking to generate about 75%

¹ [Depth activity includes scheduled and planned maintenance and repair.](#)



HOUSE OF COMMONS

availability. That is what we are after in the short term, and that is what we are getting after. It is about predictability.

If you look at where we were over the last 18 months, where we have come up about 25%, we had to resolve issues over a gearbox modification. That is now almost behind us; we have literally come up with the last gearbox changes this month.

Q360 **Robert Courts:** Has that resolved it? Has that gearbox change resolved the issue?

Vice Admiral Richard Thompson: We have done the modifications we were planning to do, yes.

Q361 **Robert Courts:** And the gearbox issue is solved.

Vice Admiral Richard Thompson: Absolutely—the original gearbox issue. All the modifications have been done, and we have gone through the spares to ensure that we are done. If you then look at the propellers, we ended up with a series of seven-year inspections; the majority were last year, and they will be coming this year as well. That is now largely behind us.

We have increased the test capacity of the engine, and some of the longer-term issues that we had with the engine itself in terms of balancing it after maintenance have now been resolved, so those things are largely behind us.

We are still maturing the aircraft in terms of maintenance. Because we took the aircraft first and we are fleet leaders, invariably we hit maintenance activity first. All of that stuff is gradually maturing. I go back to CAS's point that it is about predictability, but we are up at over eight and we are driving in the right direction. From my perspective, having taken that early decision to mature the aircraft and get on top of the productivity will pay dividends as we move forward.

Q362 **Robert Courts:** I have a final question on this. Back on the C-130J and your point, Minister, about if you were to change your mind, an alternative that occurs is this. To keep the capability rather than losing it altogether, it could be gifted, transferred or sold in some way to NATO's strategic airlift capability. Is that an option that is being seriously considered?

James Cartlidge: Our preference is for a straight Government-to-Government sale. That could include NATO partners, obviously.

Q363 **Robert Courts:** Specifically not to a NATO partner, but to the SAC.

James Cartlidge: You said gifting—

Robert Courts: Gifting or sale. Keeping it with NATO.

James Cartlidge: I think the priority—this goes back to the point made by Mr Drax—is trying to have as little follow-on responsibility as possible once the planes are disposed of, because of the impact on cost here and



HOUSE OF COMMONS

the impact on the A400 and the resources needed for that. That is really why we have that strategy. That is the key consideration.

Air Chief Marshal Sir Richard Knighton: When I last checked this, which was a couple of months ago, there were 15 nations that had shown some interest, of which 11 were NATO nations.

Q364 **Richard Drax:** It is a popular aircraft.

James Cartlidge: That is a very fair point. When I spoke about affection, just to be clear, I did not mean that was your reasoning. I was just recognising that point, because I see that from the correspondence that I get. We have made a decision about what we think is the right capability. As you have seen from orals, the Secretary of State passionately believes this is the best thing for the Air Force. I have to say, going to your constituency and meeting the crews, I know they feel very strongly the same. That is talking about squadron leaders who were flying the Hercules for many years.

Robert Courts: I am not disputing with you that the A400M, when fully matured and serviceable, is a great aircraft. There is no difference between us there at all; what I am concerned about is the overall availability of lift capacity to the Air Force.

Q365 **Chair:** When we stack up tactical heavy-lift capacity, which is the bigger question, not whether it is A400 or C-130, a freedom of information request was put in. We have got eight C-130s—please tell me if these figures are wrong—and we have got 21 A400s, but eight are under what is called sustainment, which I think means long-term repair. Only 14 are then available for your task lines. On the C-17, you have got eight, but two are under sustainment. When you add all that together, if 10 are under sustainment and eight are soon to be scrapped, that leaves 20 tactical heavy-lift aircraft for the RAF. I think the question that the Committee is concerned about would be: is that enough for our long-term needs, given the ever-increasing pressure that we are placing on them—Sudan is just one great example of something that can pop up over the horizon—in the longer term?

James Cartlidge: That is a very good question. We want to be sure we have the capability and the capacity. They are two parts of the same thing. There is a simple point as well, which is that it will be 22 very soon, we understand. We are taking delivery of the 22nd A400 later this month.

I mentioned Sudan and the performance. As you can appreciate, what really matters is that it can deliver those critical duties. If you take Ukraine—I think I had a written question from Mr Courts, and I wanted to furnish him with a little more information. I am sorry that I did not do that originally, but I have looked into it a bit more. On taking the huge amount of kit we have out to Ukraine, it has been almost entirely the C-17 in the last six months, with the A400 helping, as I understand it, at weekends. The Hercules has not been required for that. As I said, I have been assured that we could have done Sudan. But you are right—mathematically, it is a basic point. There is clearly a limit. That would be



HOUSE OF COMMONS

the case whatever the number. The word “productivity” has been used—it is a more productive plane, because you can do more with each one—but that is an important point.

Chair: Let us move on to another aircraft where, I am afraid, the numbers question comes up.

Q366 **Mr Francois:** Air Chief Marshal Knighton, congratulations—they made the right choice. Good luck in your new post.

Air Chief Marshal Sir Richard Knighton: Thank you, Mr Francois.

Mr Francois: With regard to E-7 Wedgetail, one of the things from Ukraine is that the Russians are not slow to chuck around cruise missiles. I think no one would argue about that. We have a number of fixed air-defence radar sites along the east coast. If we were to become involved in a shooting war with Russia, it is a reasonable planning assumption that most of those big fixed sites would fall victim to cruise missile strikes very quickly—possibly in a matter of days, maybe even in a matter of hours—so we would lose our radar chain.

We have a very limited number of mobile radars, as you know. The number is classified, but it is not a big number. We do not have any airborne early warning aircraft left in service. We used to have seven Sentry aircraft, but we withdrew them in 2021. So we would be blinded in a shooting war with Russia. Does that not worry you, as the future head of the Royal Air Force?

Air Chief Marshal Sir Richard Knighton: The simple answer is that our ability to see and understand what is happening in the air domain is fundamental to our ability to direct our forces and our assets and protect our country. You and I have had this conversation before, when you were the Minister and I think I was the Assistant Chief of the Air Staff, about the fact that—

Mr Francois: If nothing else, Richard, I am consistent.

Air Chief Marshal Sir Richard Knighton: I have said it before, Mr Francois: you are very consistent on this point. And it is a very good point, but my answer remains the same: we are part of a wider NATO air-defence system.

On your question about E-7 and the fact that we do not have an airborne early warning capability at the moment, that is important to us—to the country, to the Air Force and to me—which is why I give Vice Admiral Thompson a hard time and he gives Boeing a hard time to bring in the E-7 as quickly as we can. I think you know that the E-7, when it comes into service, will be a step change in capability, and NATO will be enormously grateful for what we have brought in.

Q367 **Mr Francois:** Yes, but there just aren’t enough of them. Temporarily, we rely on NATO for air cover, but in a large-scale shooting war with Russia, it is possible that those aircraft will be tasked elsewhere. We cannot



HOUSE OF COMMONS

guarantee that we would have access to them. It all depends on the operational situation. We do not control them, whereas we do control our own—or we did, when we had them. We are only going to have three. As the Chairman has already intimated, we were originally going to have five.

It is an open secret that the RAF deeply resisted the decision to cut from five to three. That was a ministerial decision, not a Royal Air Force decision. Because of regular maintenance, on any given day we are only likely to have two that can fly, and on a bad day we will have one—one aircraft to provide radar coverage for the whole of the defence of the United Kingdom. That is simply not enough, is it?

Air Chief Marshal Sir Richard Knighton: Clearly, if you have more aircraft you can deliver more capability, but you will know, as a former Minister, that Ministers have to take difficult decisions around relative priorities. The savings associated with reducing from five to three provided £700 million-plus that could be spent elsewhere in defence. That was the decision that Ministers took.

Q368 **Mr Francois:** Well, I think we contest that figure—Mr Jones is going to come on to that in a minute, and that is one sandwich I am determined not to eat—but it simply is not enough.

Air Chief Marshal Sir Richard Knighton: Well, I am prepared for that question.

Q369 **Mr Francois:** Next point: they will be absolute prime targets for our enemies. The Chinese have a missile, the PL-15/17, that can reach nearly 200 km. The Russians have something not quite as good, but similar. I don't know what they call it in Russian, but it is the AWACS killer.

You have got very few of these aircraft, and our enemies will absolutely do everything they can to knock them out of the sky—all the more reason for having a few more aircraft than we have currently got. Surely, as we have paid for five of the radars—Mr Jones will explore that in more detail—but we are only going to have three aircraft, it must make sense to go for five, mustn't it?

Air Chief Marshal Sir Richard Knighton: I am going to pre-empt your question, Mr Jones.

Mr Kevan Jones: I'm having my sandwiches eaten on a regular basis today.

Air Chief Marshal Sir Richard Knighton: I'm sorry—I'm going to eat your fruit and yoghurt as well.

I saw the article over the weekend in the *Telegraph*. The number that that was referring to is the procurement costs specifically around the aircraft. A chunk of the savings is associated with the infrastructure and the support costs associated. If we wanted to bring more aircraft into service, we would have to find at least £700-something million over the next seven or eight years—something like that—in order to be able to do that.



HOUSE OF COMMONS

Now, it may be that as we go through our further planning process and the fact that the Americans have committed to buying E-7—28, I think, they have identified—that may open up opportunities. But that would have to be a balance-of-investment judgment that Ministers would want to take across Defence. What the Air Force doesn't have is spare cash to be able to go and focus on that.

Q370 **Mr Francois:** I will let Mr Jones run that one to ground.

We can't use the Crowsnest AEW helicopter—the conversion of the Merlin for the Navy. That is an AEW system, but after seven years, it still doesn't work properly. To May 2023, we have spent £414 million on that helicopter, out of a projected whole-life cost of £459 million. How many are we actually going to have? There is some confusion about whether every one of our 30 or so Merlins will be converted for Crowsnest, or whether there is just going to be a small number. Vice Admiral, what is the answer? How many Crowsnests are we going to have?

Vice Admiral Richard Thompson: I don't know the answer to that. I can come back to you, but I don't know the answer.

Q371 **Mr Francois:** With respect, sir, you are DG Air. This is absolutely in your lane.

Vice Admiral Richard Thompson: This, unfortunately, sounds like an excuse, and please don't take it as such—I don't do helicopters. I know that sounds bizarre; I can't give you that specific answer. I apologise, but I don't have it.

Q372 **Mr Francois:** Who is responsible for the procurement of Crowsnest? Which bit of DE&S is responsible?

Vice Admiral Richard Thompson: It sits under DG Land, with my colleague.

Q373 **Mr Francois:** Airborne early warning helicopter sits under DG Land.

Vice Admiral Richard Thompson: That is a consequence of how the funding flows.

Q374 **Mr Francois:** All right. Just quickly, a couple more questions. So far it has taken over seven years, and it doesn't work properly, and we still haven't got IOC. On the Carrier 21 deployment, it performed very poorly—how poorly is classified, but it was not a stunning success.

After seven years, we still haven't integrated the radar on to the helicopter. In the Falklands war, we integrated a radar on to a helicopter in three months. Why were we able to do in three months 40 years ago what we can't do now in seven years?

Vice Admiral Richard Thompson: The conversation I had with my colleague yesterday is that from a design perspective those KURs that were set out for the aircraft—

Q375 **Mr Francois:** KURs?



HOUSE OF COMMONS

Vice Admiral Richard Thompson: Key user requirements—the operational specification, simplistically. They will be met and the rectification of the current shortfalls will be dealt with by industry, at their cost.

Mr Francois: I understand that the Latin word for crow's nest is basket case. This is why this Committee gets so fed up—cock-ups.

Q376 **Mr Kevan Jones:** Before I get into my question, can I ask the Air Chief Marshal about the tasking of E-7? What will its tasking be? Is it part of a network of broader NATO tasking? What will it actually be?

Air Chief Marshal Sir Richard Knighton: We offer a certain number of missions into NATO. Unlike other nations, we retain command and control of the assets and then we choose, through negotiation, to hand it into NATO, if there are specific missions that NATO wanted to undertake. That is an agreement that we make with the NATO Airborne Early Warning and Control commanders.

Q377 **Mr Jones:** So that is part of a bigger NATO commitment.

Air Chief Marshal Sir Richard Knighton: NATO has its own airborne and early warning capability. The UK contributes to that, but retains its own assets. We didn't put the assets into the NATO pool.

Q378 **Mr Jones:** In terms of the reduction from five to three, why has it taken so long to submit the business case for E-7?

Vice Admiral Richard Thompson: The business case—or the final business case, because we had an acquisition business case to start—is currently being generated. It is due to go through approval between summer and the end of this year. What is taking us the time is that we have not yet completed the negotiations on the support solution. Once that has finished, we will be in a position to finalise the full business case, because embedded within it is the whole-life cost of the aircraft. We have done at the acquisition piece, because we wanted to get going with the acquisition, and we are now finalising the support costs.

Going back to the point we made earlier about the savings of £715 million to £720 million, within those support costs what you have seen so far is the acquisition element of that. You have the support element of that to come, which is another £300 million. That is effectively what the business case is currently looking at. That is the full business case.

Q379 **Mr Jones:** So we have basically bought a car without any service plan for its future.

Vice Admiral Richard Thompson: Remember that we bought this aircraft off the shelf. From the perspective of how we finalise the support solution, that work is ongoing. We are in a position to know how to support the aircraft; it is about finalising the negotiation.

Q380 **Mr Jones:** Wait a minute. If I bought a new car and I was going to keep it for, let's say, 20 years, I would want to know what it was going to cost



HOUSE OF COMMONS

every year for the next 20 years to keep it on the road or keep it up to date. Are you saying that you don't know what it is going to cost?

Vice Admiral Richard Thompson: We can do comparative costs with what it costs Australia, for example, to operate the aircraft. They have been operating the aircraft for a while. We are still finalising the negotiations with industry as we speak.

Air Chief Marshal Sir Richard Knighton: Can I provide a bit of colour? It is like asking, if you buy yourself a new car, whether you know in five years' time how much the garage is going to charge you for the servicing.

Mr Jones: Well, no, it's not.

Air Chief Marshal Sir Richard Knighton: The point is that you negotiate the precise costs associated with the support solution as you get a better understanding of it.

Vice Admiral Richard Thompson: But you do know which franchise you are going to.

Mr Francois: But you have had years to work this out. Why didn't you work it out before you withdrew the E-3 AWACS? You've had years.

Chair: Okay. Kevan, are you finished?

Q381 **Mr Jones:** Well, we don't know what the overall programme will cost. You say that by cutting the two aircraft out, you are going to save £700 million, but we don't know, do we, because we haven't actually finalised it. What is the cost inflation, in terms of the programme?

Vice Admiral Richard Thompson: From an acquisition perspective, it is a firm price. The price of the acquisition is fixed.

Q382 **Mr Jones:** Yes, but then we obviously have to put into that the cost of the dollar exchange rate, because it is bought in dollars, isn't it?

Vice Admiral Richard Thompson: Yes. In terms of our whole-life costing and planning, that is something that we do routinely. When we predict how much we need in the budget, that is done using standard defence economic indices.

Q383 **Mr Jones:** Well, it is, but it is another programme that we have bought that means we are at the mercy of the currency markets.

Air Chief Marshal Sir Richard Knighton: To be honest, that is the case with all our programmes. We hedge over a number of years, in terms of—

Q384 **Mr Jones:** It would be, but the increase in the last few years in the number of off-the-shelf solutions from the United States has given the defence budget a huge exposure to the effect of currency exchanges.

Air Chief Marshal Sir Richard Knighton: Yes. As the pound has weakened against the dollar from \$1.42, as it was a few years ago, to \$1.20, that has caused a 15% increase in costs.



HOUSE OF COMMONS

Q385 **Mr Jones:** It has, but something like 30% of the procurement budget is now in dollars, isn't it?

Air Chief Marshal Sir Richard Knighton: I haven't seen the report from last year, but I don't think it is that high now.

Q386 **Mr Jones:** It's not far off.

Air Chief Marshal Sir Richard Knighton: It was higher a couple of years ago, when we had a higher number of Apaches, P-8s and F-35s, which were denominated in dollars.

Q387 **Mr Francois:** Sir Richard, sorry, but I serve on the PAC so I know a bit about this. We have an upper and lower band across the 10 years of the equipment plan. The lowest dollar exchange rate we had in the assumption, I think—from memory—was \$1.27. That was right at the bottom. I think today the pound is around \$1.25, so already we are out. If you magnify that over the 10 years of the equipment plan, you are talking about a very large amount of money.

Just quickly, on the £720 million—we were going to pay approximately £1.9 billion—

Air Chief Marshal Sir Richard Knighton: It was nearer £2 billion.

Q388 **Mr Francois:** The total cost now is £2.155 billion for three aircraft, whereas we were going to pay £1.9 billion for five.

Air Chief Marshal Sir Richard Knighton: It's the other way round.

Q389 **Mr Francois:** Right, okay. In which case, how has the taxpayer still got value for money if we were going to pay £2.155 billion for five and we are now going to pay £1.9 billion for three? How is that good value for money?

James Cartlidge: Forgive me, but isn't the crucial point that with the approximately £720 million saving, a lot of that comes from moving it to Lossiemouth and the sharing of workforce—

Q390 **Mr Francois:** But you would have done that, Minister, whether it was five or three. They were going to go to Lossiemouth. What is that £720 million "saving" based on? How do you calculate that?

Air Chief Marshal Sir Richard Knighton: May I put that in? When it was five aircraft, the decision was for it to go to RAF Waddington. Part of moving it to Lossiemouth meant that the infrastructure build, which was getting up towards £200 million of savings, was associated with infrastructure that you then did not need at Waddington.

There were savings associated with the procurement, which are the numbers you have given, and also savings of over £300 million associated with supporting only three aircraft, rather than the five over the 10. When you take that together, that is where the £700 million comes from. I am good at maths, Mr Francois; we can work through that.

Q391 **Mr Francois:** I know, Sir Richard, but—



HOUSE OF COMMONS

Air Chief Marshal Sir Richard Knighton: Can I just finish off the point about value for money? I was involved in that in my previous role. As you would imagine, you would expect the Treasury to want to examine the value for money of the programme when you reduce from five to three, with the saving that you have described. The Treasury agreed that that remained value for money, and when you compared it with the costs of other nations, we were getting a really good deal.

Chair: Okay. We need to move forward. Kevan, can you complete radar?

Q392 **Mr Jones:** But it has not been approved by the Treasury yet, has it?

Air Chief Marshal Sir Richard Knighton: Yes, it was—the acquisition was approved.

Q393 **Mr Jones:** The acquisition was, but the second part of it.

Air Chief Marshal Sir Richard Knighton: The second part includes the long-term support and some of the final elements. That is the bit that will be concluded in the full business case.

Q394 **Mr Jones:** So that has not been approved yet.

Air Chief Marshal Sir Richard Knighton: It has not been approved through the Treasury yet, as I understand it.

Q395 **Mr Jones:** What happens if the Treasury come back and say, “We do not approve this”?

Air Chief Marshal Sir Richard Knighton: That would be very difficult, Mr Jones.

Q396 **Mr Jones:** Can I just ask the last thing, then, about the radars? Is it true that we have bought five and we are only going to use three?

Air Chief Marshal Sir Richard Knighton: That is correct, but the additional two we have decided to keep, because it allowed us to reduce the spares purchased by about £100 million. That was part of the savings associated with it. Normally, if we had had five, we would have had to buy all five, and buy some spares to sustain it. Because we have only got three aircraft, we can use those two radars, break them down and use them as spares.

Q397 **Chair:** You could buy two airframe spares as well, just in case you need those two.

Air Chief Marshal Sir Richard Knighton: Well, they are 737s, so it is rather easier to get spares for that.

Q398 **Mr Jones:** Can I just ask—in terms of the two you have, what is the cost of each radar?

Vice Admiral Richard Thompson: That is a sensitive figure.

Q399 **Mr Francois:** I bet it is.



HOUSE OF COMMONS

Vice Admiral Richard Thompson: In terms of UPC, but the return was a good return—proportionally, it was a good return.

Q400 **Mr Jones:** So have you bought them as made-up radars or in bits?

Vice Admiral Richard Thompson: They come as a complete package, but fundamentally you can break them down into spares.

James Cartlidge: When I saw this, I said, “Can I just be clear: we’d signed the contract for five, then we made radars, and we then made a decision on the planes?” I do not want to use Mr Francois’ language, but was it a mistake, as it were? To be clear, be absolutely assured that this was a conscious decision, because of the saving involved and what it would mean in terms of the spare parts etc.

Q401 **Mr Jones:** So they will go in the inventory for the spare parts over the next few years.

Vice Admiral Richard Thompson: Exactly. That is exactly it.

Air Chief Marshal Sir Richard Knighton: And to conclude, we got better value for doing it that way, rather than trying to sell the radars back to Boeing, because, particularly at the time, the US had not committed to buy more.

Q402 **Mr Jones:** Can I ask one last question about workshare? Boeing is doing very well out of the UK defence industry, but it puts very little back in, in terms of investment in jobs in the UK. Are we going to have any of this maintenance of work or access for industry to take part in any of the through-life support for this?

James Cartlidge: My understanding is that this is about 700 jobs.

Vice Admiral Richard Thompson: Yes. The work up in Lossiemouth, in terms of the long-term maintenance of the aircraft, will be done through UK jobs. You have been to STS and have seen that there are about 90 jobs up there in terms of the skilled workforce. Those are planned jobs.

Q403 **John Spellar:** At Lossiemouth, Boeing has added jobs. Whoever got the contract will have had to provide the maintenance depot. Boeing is not giving anything out of that; that is just a maintenance function. It does not put any production into this country, does it—or very little?

Vice Admiral Richard Thompson: Not for this specific aircraft—

Q404 **John Spellar:** No, no: at all. For all the work that Boeing has had out of the RAF, what has it put back? I could go and see a big GE plant at Cheltenham. What has Boeing put back into this country?

Vice Admiral Richard Thompson: There are a number of jobs within the supply chain.² There are engineers doing work, for example, in places such

² [As of the 10 May 23, UK jobs total 385: 150 jobs with STS in Birmingham, 25 Boeing Defence UK \(BDUK\) jobs supporting STS, 110 BDUK jobs supporting infrastructure at RAF Lossiemouth, and 100 BDUK Ground Segment Delivery jobs.](#)



HOUSE OF COMMONS

as Leonardo, with defensive aids suites. There are other jobs across the supply chain.

John Spellar: But—

Chair: Okay, a couple of people want to come in here. Kevan, do you want to conclude?

Mr Jones: Can I just say that even at this late stage, you might want to keep pressurising Boeing? I accept that some of this is a Government-to-Government contract, but I do think, Minister, that you need to be screwing Boeing down to the floor and saying, "If we are procuring these things, we want to see investment, not just in jobs but in technology and development in this country." It has done very well and put very little back into this country, in terms of technology, for the proportion of contracts that it has had.

Q405 **Dave Doogan:** Air Vice Marshal, the immediate previous MinDP issued on-the-record figures that I think you will recognise. For five aircraft, it was £2.16 billion; for three aircraft, £1.89 billion. That would give you a unit cost of £432 million for each aircraft if we bought five, but we only bought three, so that is a unit price of £630 million. That is an inflation of £200 million per aircraft. Is my maths correct?

Air Chief Marshal Sir Richard Knighton: Your arithmetic is correct, but your assumptions are incorrect because not all the costs associated with the contract are specifically for the airframes. There will be things like training infrastructure, simulators and some elements of infrastructure in there. But you are right: the per-unit cost associated with E-7 when we bought three rather than five went up. That was assessed by the Treasury as still representing value for money.

Dave Doogan: Interesting. Also on the record from the immediate previous MinDP, in terms of addressing the capability gap, it was cited that Crowsnest is available. Is Crowsnest available, FOC, entirely available and functioning properly as anticipated?

Mr Francois: It is not even IOC.

Q406 **Dave Doogan:** No. FOC was meant to be achieved in May 2023. Can we hear from anybody if it has reached FOC in May 2023?

Air Chief Marshal Sir Richard Knighton: It is a Navy programme delivered by DG Land. It has been a little while since—

James Cartlidge: I think we did agree on that one, I am afraid, that—

Q407 **Dave Doogan:** Have you had a briefing yet on Crowsnest?

James Cartlidge: No, I haven't.

Q408 **Dave Doogan:** Can I suggest you get one, and could you update the Committee on what they tell you? Thank you.

James Cartlidge: Yes. I think we did agree that we would write.



HOUSE OF COMMONS

Q409 **Mr Francois:** The Chairman is keen to move on. That £720 million is a smoke-and-mirrors number.

Air Chief Marshal Sir Richard Knighton: That is not right; it is a real number, because money has been taken out of the budget.

Vice Admiral Richard Thompson: It is audited. It is not a smoke-and-mirrors number.

Air Chief Marshal Sir Richard Knighton: The Air Force no longer has that money to spend.

Q410 **Mr Francois:** The Sub-Committee will look at this in greater detail. Just quickly, if you already have spent the money on the maintenance facilities, whether it is five or three, you have already bought five radars and you are running a massive operational risk, surely the sensible thing to do is to buy two more 737s and go up to five, isn't it?

James Cartlidge: They still wouldn't be free.

Mr Francois: We know that.

James Cartlidge: I know you know that, but that is the point: we would still have to make that financial decision. Now, it may be that the Committee wants to make a conclusion and a recommendation to us that that is the case, and we will obviously have to respond to that, but we are in the middle of the defence Command Paper. We are looking at all the balanced investment decisions. If we spend something on one thing, that is something we cannot spend elsewhere. We cannot escape that basic logic.

Q411 **Chair:** This is the final point on this, because we want to move on to other things. Air Chief Marshal, can you give me scenarios where the E-7 has been deployed or could be deployed? The high north, over UK airspace, the east flank of NATO, maybe over Sudan and the Gulf—are these typical locations where it could be deployed?

Air Chief Marshal Sir Richard Knighton: Yes. If you look at the final year of operation of the E-3, it operated out of Cyprus to cover the eastern flank of NATO, for example, or it could move and cover our operations over the middle east.

Q412 **Chair:** Okay, so it is a useful asset to have.

Air Chief Marshal Sir Richard Knighton: Absolutely.

Q413 **Chair:** I hope the message that you are receiving from this Committee is that three is simply not enough. One can be used for training and one could be broken or in need of basic repair, leaving you one only, and you have just given a whole list of scenarios in which the E-7 could be deployed. When the cut was made from five to three, the American embassy called me and said, "This is mad. What are you doing? Operationally this is dangerous because you will not be able to provide the necessary ISTAR assets that our F-35s particularly need for modern-day air combat." That is the piece that I think is misunderstood. We can



HOUSE OF COMMONS

go through all these numbers. This was a fund-cutting exercise—that is what this was about—and we have lost operational capability.

I hope that that is the message that the new Procurement Minister will take away: that if there is any way we can return to five, it would make sense. We appreciated our visit to Birmingham and what they are doing with an amazing bit of kit. They have capacity to build more, and I hope that that is something he will also consider. NATO is thinking of purchasing E-7 for itself. It would be good to see them being built in Birmingham.

James Cartlidge: I get your message.

Q414 **Chair:** We have made it very clear.

Can we move on to flying training? We had an interesting briefing from Ascent Flight Training, which does much of the training for the RAF. In simple language, there are, as you know, three phases to the training. Phase 1 lasts 12 months, phase 2 lasts two and a half years, and phase 3 lasts another year. That suggests that in about four and a half years you can have a fast jet pilot, an A400 pilot or an Apache pilot as well. We went to Marham and met a pilot. It had taken him 10 years to go from flash to bang, so there is something fundamentally wrong with our training programme. Before we go into the detail, can you elaborate on what has happened and how you are going to fix it?

Air Chief Marshal Sir Richard Knighton: We have talked to the Committee about it before and there are some examples, such as the one you cite, where the process of going through the flying training system is unacceptably long. The history of this goes back to the NAO report in the early 2000s that recommended changes to the way in which flying training was delivered, and the solution was the military flying training system that you are aware of. That was sized in 2012 around expectations of what the size of the frontline was going to be.

In 2015, there was a decision to grow the size of the frontline, partly because of the increasing number of Typhoon squadrons, but also because of the decision to run on Hercules and so on. So the throughput had to be increased, and at the same time we went through a period from 2015-16 onwards in which every aircraft apart from Hawk was replaced. By the time we got to 2019, when all those new aircraft were coming into service, we had a big backlog of pilots waiting to go through elementary flying training.

Over the period from 2019 to today, that situation has improved significantly, but that bulge has moved through the system. As the Chief talked about when we saw you on 1 February, because of the impact of covid and the fact that many more people stayed in the service at that time than was originally expected, the frontline was full, so there were not gaps there for new pilots. The second thing is that decisions taken in 2020 removed cockpits for people to go to that they had been recruited for several years ago, so that has contributed to the backlog.

Q415 **Chair:** And to add to that, after having cut Hercules you have now got



HOUSE OF COMMONS

Hercules pilots who need to be retrained in some form if they are going to stay in service.

Air Chief Marshal Sir Richard Knighton: As the Chief laid out when we came to see you a couple of months ago, I am pleased to say that we are seeing improvements in the time it is taking people to move through the system. The number of pilots holding is reducing as well. By the time we get into the middle of next year, quite a lot of those pipelines will be at their optimised level.

I was at RAF Cranwell last week, and I was chatting to some of the pilots who had graduated a little while ago. I chatted to a young woman who had completed elementary flying training and next year will start Texan, which is the next phase of the fast jet training. She was expecting to be at the frontline, through the OCU, in 2026, so that is the kind of speed of improvement. But you are absolutely right that where it was was not acceptable. That was due to a combination of factors.

Q416 **Chair:** After Texan, phase 2 is where either you move into your heavy lift, your multi-engine, your fast jet, or you go into rotary. With the example you gave, if we are going from the Texan, the next step will be the Hawk. It is the availability of the Hawk that has been fundamental. We have discovered that that is one of the crucial bottlenecks in getting people through the system, because at one point you were down to six available Hawks for the programme, whereas on a good day you were looking at having, I think, between 15 and 18. So can you tell the Committee how that has improved—what we are doing—and about the contract for providing Hawks, because there is a question about that? You have mentioned Texan, and there are all the other ones that we are talking about: Phantom, the Prefect, Juno and so on. They are all provided through the contract that is given to Ascent. Why did the MoD choose to keep the contract for availability of the Hawk and not include that in the Ascent contract, too?

Air Chief Marshal Sir Richard Knighton: I am going to turn to Vice Admiral Thompson to talk about the contract and the like, but you would have to go back to—I think Geoff Hoon was the Secretary of State when the decision was taken on Hawk.

Chair: Ah! I knew it was going to be Labour.

Air Chief Marshal Sir Richard Knighton: The decision was taken to buy a Hawk T2 at that stage, in the knowledge that there was a requirement to upgrade other aspects of it. I was but a junior officer at that time, so I am afraid I was not privy to those decisions, but in terms of where we are today with Hawk, Rick is in a very good place to describe it to you.

Vice Admiral Richard Thompson: The work that we did about two or two and a half years ago to bring together what were about five or six contracts under one, to improve the availability of Hawk—pending the engine—that work was done because it was demonstrated that it was the most cost-effective way. I cannot answer your question about why we



HOUSE OF COMMONS

decided to leave Hawk as GFE or GFX, but fundamentally, the decision to negotiate—

Q417 **Chair:** It has not been impressive, and there is a big question whether the MoD does this stuff well or whether you slide it across the table to a company that actually has a better track record of doing it and, from what we have understood, would be keen to take on that role. So maybe, Minister, you could take this away and say, “Why don’t we slide the Hawk responsibility over to—”

James Cartlidge: Ascent, who run the programme.

Chair: Yes, absolutely.

Q418 **John Spellar:** What are the underlying reasons—there may be several—for the unavailability of Hawk?

James Cartlidge: As I understand it, they had a problem with the engine, and it was module 1 and then module 8—

Vice Admiral Richard Thompson: Our current problem is purely down to the engine. The aircraft itself, the support solution and the depth of maintenance at Valley are performing well. It is purely the engine that is currently driving down our availability.

Q419 **John Spellar:** What are the problems with the engine? How long have they been going on, and what is the recovery path?

Vice Admiral Richard Thompson: There are two separate issues with the engine. The first issue is with the life of the compressor, and the second is within the life of the turbine. Those are two components that we have had to reduce the life of because of design and manufacturing issues. Those have been around now for about a year. That is when we first had the problem with the compressor, and about six or seven months ago we ended up with a problem with the turbine. Both of those now are—

Q420 **John Spellar:** Is this back to the problem with fan blades?

Vice Admiral Richard Thompson: Yes.

Q421 **John Spellar:** Which is the same on the civilian side. It has been a problem with some of the civilian engines as well.

Vice Admiral Richard Thompson: There is not an equivalent of this engine—

Q422 **John Spellar:** No, but fan blade problems have been part of the issue on the civil side as well. So what you are doing with Rolls-Royce? Is it a Rolls-Royce engine?

Vice Admiral Richard Thompson: It is a Rolls-Royce contract, but it is a combination of Rolls-Royce and Safran—

Q423 **John Spellar:** Who makes the fan blades?



HOUSE OF COMMONS

Vice Admiral Richard Thompson: The front of the aircraft is made by Safran and the rear by Rolls-Royce, but it is a partnership.

Q424 **John Spellar:** Who produces the fan blades?

Vice Admiral Richard Thompson: The front is manufactured by Safran and the rear by Rolls-Royce.

Q425 **Chair:** My other question is to do with the feed-in systems of the Army and Navy versus those of the RAF, when it comes to rotary as well. I understand that when pilots begin phase 2, they come from very different training mechanisms: one is using the Tutor and one the Prefect aircraft. It did not make sense—certainly I did not understand—why pilots who will end up going on the same rotary course have very different preludes. Is that something that you can look at, please, because it did not make sense? There are two separate contracts, so there are costs to be saved there.

Air Chief Marshal Sir Richard Knighton: They are not separate contracts, but there is a different philosophy between the two. That has been an issue for some years, and we will look at it again when I take over.

Q426 **Chair:** Right. Some years, you say?

Air Chief Marshal Sir Richard Knighton: If you go back about 10 years, there was a debate about whether someone could go straight to rotary training and not do any fixed wing at all. The Army and the Navy were keen to keep some fixed wing, which is the Tutor flying; the Air Force takes people through elementary flying training and then streams them at the end—streaming means deciding, based on capacity and capability, whether someone is fast jet, multi-engine or rotary wing, so everybody is captured. If people join the Army, they will not fly anything other than rotary wing; in the Navy, they could end up flying fast jet. That is the bit that we need to work through. Ascent is right that that is worth looking at again now that the system has stabilised.

Chair: Now that you are where you are, after all these years, I am glad it will be looked at.

Air Chief Marshal Sir Richard Knighton: It has been looked at before; it is just that the Army and Navy made the decision that they made. I think that we should go back and review it again.

Q427 **Mr Francois:** There were problems with Hawk availability long before we had the issue with the Adour engine. We have had poor availability on the Hawk for a number of years at Valley, and that is one of the reasons why we have had such bad backlogs. A very senior person at BAE once told me, "The problem with the MFTS contract is that it is so complicated, no one is in charge." One of the features of the contract is that whenever anything goes wrong everyone blames everyone else. That is true, isn't it?



HOUSE OF COMMONS

Vice Admiral Richard Thompson: To go back to your first point about Hawk availability, ahead of the current engine issue, the Hawk availability had recovered. A recovery programme was put in place, and availability far improved on where it was from the reference you made.

On managing the different interfaces, while I agree with you that more interfaces make things more complicated, that was one of the reasons why we did the Hawk contract re-let—we wanted to simplify the number of interfaces—but the relationship between Hawk, the BAE management and Ascent is much improved. That is one of the early problems that we had with MFTS, but it is now much more a single enterprise and they are working incredibly well together.

I take your point about having more interfaces making something less efficient and effective, but I would say that as a single enterprise, it is far better than it was. That is one of the initial problems that we overcame.

Q428 **Mr Francois:** That is not borne out by the stats we were shown yesterday. You have only so many hours of availability in so many Hawks on any given day. There are several problems: a number of those slots are taken by foreign pilots; a number of those slots are taken by RAF pilots who are doing refresher training, because they have had to wait so long that they could not get on to an OCU, so they have had to come back to do more slots to be current; and, because of the problems, which are even worse with the Hawk, quite a few of those RAF pilots are now being trained abroad. We have foreign pilots being trained in the UK, and UK pilots being trained abroad. When we asked, "Does the taxpayer get any money back for that?", we were told no, because of the way that the contract is written. It really is a very poor contract, isn't it?

Air Chief Marshal Sir Richard Knighton: There is a whole bunch of things wrapped up in that. Let me see whether I can separate them out.

Q429 **Mr Francois:** In essence, that is the problem. Everything is wrapped up with everything else.

Air Chief Marshal Sir Richard Knighton: No—what you described is wrapped up. It is interesting that BAE Systems should tell you that everybody looks at everybody else, because BAE Systems is accountable and responsible for delivering the availability of Hawk, and that is where we have had some significant problems, as you described.

Q430 **Mr Francois:** Without being flippant, to who?

Air Chief Marshal Sir Richard Knighton: What do you mean?

Q431 **Mr Francois:** Who are they responsible to?

Vice Admiral Richard Thompson: They are responsible to the MoD.

Q432 **Mr Francois:** You are then responsible to Ascent, and Ascent is then responsible to you. Contractually, that is how it works, isn't it?

Vice Admiral Richard Thompson: No. They are responsible to us, and we then provide the availability into Ascent.



HOUSE OF COMMONS

Air Chief Marshal Sir Richard Knighton: There are two contracts. One with BAE Systems, one with Ascent.

Vice Admiral Richard Thompson: It is Government-furnished equipment, and we provide that availability.

Q433 **Mr Francois:** But you cannot tell us why, in response to the Chair's very good question, Hawk was made an exception in the first place.

Vice Admiral Richard Thompson: The answer to that is I do not know, but I will go back and provide you with an answer.

Q434 **Mr Francois:** When CAS was here last time—you were here, Sir Richard—he gave us the numbers of pilots who had graduated in the last few years and told us that it was already fixed. Then—I will choose my words carefully—when we threw some PQs at him with the actual statistics, he admitted that he misspoke. Your argument would be that it is being fixed, but it is not true to say that it is fixed yet, is it?

Air Chief Marshal Sir Richard Knighton: If we go on to the "it" that you are talking about, in terms of the element that goes from elementary flying training through to the point at which you get to Hawk or to an OCU, that is performing much, much better. It is not completely fixed. We still have too many people in the system and the holds are too long, but that is coming down really rapidly. As I said, by the middle of next year—we are already seeing improvements—

Q435 **Mr Francois:** If that is true, why are we having to do some of this training abroad?

Air Chief Marshal Sir Richard Knighton: Hold on. I have just gone on to Hawk. It is the Hawk training that we are doing abroad, for two reasons. One is that the availability of Hawk associated with the engine is less than it should be. Secondly, we have people in the system waiting, and we are opening up slots on the operational conversion unit. Why wouldn't we put them through overseas training? We have a long history of having done that. Currently, we are planning on around 27 UK pilots being trained on fast jets overseas ahead of the operational conversion unit. I am not sure whether we need that many, because we think that the Hawk will recover faster, but we are not going to reduce that number so that we hedge against further problems with the Hawk engine.

Q436 **Mr Francois:** Last question. Your predecessor as CAS—well, he is still CAS—was famously given "one job" by Ben Wallace, which was to fix the military flying training system. With no disrespect to you, the description that we have had this afternoon has not convinced this Committee that it is fixed. It might be getting better, but fixed is going too far. Have you been given a similar instruction by the Secretary of State?

Air Chief Marshal Sir Richard Knighton: I have not yet had any specific direction from the Defence Secretary, but I anticipate that flying training is going to be a key part of whatever he gives me. On the point, "Is it ever fixed?", one of the things that I would say, drawing on 30 years of experience—but particularly the last 10 or 15 years—is that flying training



HOUSE OF COMMONS

is complex and complicated. It is affected by a whole bunch of external factors that we do not necessarily have control over, whether that is Government decisions, the commercial sector or the loss of pilots. What I do know is that if you take your eye off it for a moment, it can get out of the tolerances that you set. I assure you, Mr Francois, and I will certainly assure the Secretary of State, that me and the team will be keeping a close eye on this all through my period as Chief of the Air Staff.

Vice Admiral Richard Thompson: May I make a point of clarification in terms of recovery? For the engine, we have a recovery profile to return the aircraft to the 50% availability that we need in terms of engines and aircraft by the end of this year. We are currently at 13 engines, of which we have, effectively, 11 aircraft. That will return by September to 18. We then flatline, and then at the back end of next year, when we get the components that we need for the front of the engine, that will recover, so we are back to where we need to be at the beginning of 2025. That is a plan. It is being managed closely by Rolls-Royce and Safran together. We have full transparency on those parts that are in the supply chain, and we will fix this problem. I just want to make that clear.

Q437 **Mr Francois:** You said early '25.

Vice Admiral Richard Thompson: Yes.

Q438 **Mr Francois:** So you might say it will be fixed then, but it is not fixed now.

Vice Admiral Richard Thompson: In terms of that element, Hawk availability, due to the engine—absolutely. But that is down to engine availability only.

Q439 **Chair:** Okay. Minister, one for you. There is something called the aircrew pipeline steering group, which is quite fundamental, when we are talking about bringing people together. Could we recommend that you sit on this, or attend it once—you are shaking your head already, Air Chief Marshal—just to familiarise yourself with it? Ascent Flying Training, for example, is not represented on there. The point came up about the left hand and the right hand—we need to find ways to fix these aspects, such as the idea that Hawk is slid across the table away from the MoD contract. Apparently, it was that group that determined the vehicle for that to happen.

The second point is to do with a study that Gavin Robinson did recently on diplomacy and soft power. Getting international students through the pilot training scheme is one of the great things that we can do. People will ask to come to the UK to complete their flying training from across the world. We need to have availability to make that happen, but as Mark was implying, that can't be to the detriment of us then having to send our own pilots abroad. That simply does not make sense. The Thursday war games—you will be familiar with those—are another great opportunity for us to show that we provide all these things for international students, at Sandhurst, Shrivenham and so on.

You mentioned the head of the US air force in Europe. You may have



HOUSE OF COMMONS

come across each other at Miramar at the start of your career—I don't know. You develop friendships, and that's important, and that is where us sharing these training schools is very important.

Air Chief Marshal Sir Richard Knighton: May I just add a little bit of colour? To Mr Francois's point, we do get paid if we train overseas students. The Qataris are part of that overall deal with 12 Squadron. Dr Khalid, who is the Defence Minister in Qatar, went through flying training and Hawk training at the end of the 1980s.

Chair: I know him. He's a Typhoon pilot.

Air Chief Marshal Sir Richard Knighton: Typhoon, F-15 and Rafale, he tells me. I am convinced that his positive experience has played a part in the decision making.

Q440 **Chair:** He flew the Typhoon, he appreciated that, and that helped with the deal. Absolutely right.

Air Chief Marshal Sir Richard Knighton: Because of the challenges we have right now, we have negotiated within that, to helpfully come to a position with our allies where we have really reduced down the number of international students going through the system, to ensure that we can prioritise British students. As the availability recovers, that will change over time, and we will get the benefits that Mr Robinson describes in his report.

James Cartlidge: You asked me, I think, Mr Chairman, to come in on these particular points. The first and most important thing to say is that, obviously, the operational side of training is very much the responsibility of the senior leadership, but, as you said, it is a huge priority from the Secretary of State's point of view.

For me, this is a very personal issue. The idea of people aspiring to join the Air Force and having these long waits or being on hold, or whatever you want to call it—we don't want that to be of an undue length, for reasons that we could control. I want to be absolutely clear on that.

In terms of the overall picture, there is a lot of technical speak in this world, but there is this phrase "getting back to optimal". It is essentially a pipeline, and we are getting back to the point where we have an optimal balance between people on hold and waiting, and so on. We have fast jets next March, multi-engine next March and rotary wing the following March—that is the longest. It is improving—that is what we mean by improving, as I understand it.

On the point about the study, I wasn't aware of it, but it sounds really interesting.

Gavin Robinson: It is still to be published. It will be published tomorrow.

James Cartlidge: Ah! But I am aware of it now.

Chair: We can give you an embargoed copy.



HOUSE OF COMMONS

James Cartlidge: It sounds extremely logical. I don't have an example from flight. All I can say is that when I went to COP as Treasury Minister, I met the Finance Minister for Egypt. What made him so positive about us was the fact that he studied at a UK university. It is the same principle.

Q441 **Mr Kevan Jones:** Can I turn to what I don't think is one of your finest hours, which is the purchase of five Airbus H135 helicopters? You bought five of them brand new and then mothballed them. Why?

James Cartlidge: As I understand, they are in what we call storage.

Q442 **Mr Jones:** Mothballed, yes. They aren't being used, are they?

Air Chief Marshal Sir Richard Knighton: I am speaking from my previous role: this is not in Air Force procurement. It does not meet an Air Force requirement.

Q443 **Mr Jones:** So why did we buy it then?

Air Chief Marshal Sir Richard Knighton: Because at the time there was a requirement, and a policy review removed that requirement.

Q444 **Mr Jones:** What was it?

Air Chief Marshal Sir Richard Knighton: I do not think I can talk about that in public, Mr Jones—I'm sorry—because of the nature of the task that they were due to undertake. That requirement has been withdrawn and, as I understand it from talking to the team the other day, the options for what happens to those five aircraft—whether we sell them, use them in a different role or exchange them in some way—are being considered. That is due to be decided on in the next few weeks, I understand.

Q445 **Mr Jones:** So they were bought for SF purposes and are not being used, basically.

James Cartlidge: It is not as straightforward as that.

Q446 **Mr Jones:** How much did it cost to buy five?

Air Chief Marshal Sir Richard Knighton: I don't know off the top of my head; I'm sorry.

Q447 **Mr Jones:** There are two things: there is the cost of buying them and what the spares package and through-life support will be. We would be interested to know what it is. Obviously, there is the ongoing cost of storing them or mothballing, so the longer you have them—I remember the bad days, and perhaps you can, Air Chief Marshal, when we had the Chinooks stored for God knows how many years. I think we would like that information and any information you can give us.

James Cartlidge: I will look at how much we can write to you about that. There are some sensitivities, but I will look at that.

Mr Jones: I don't think there are sensitivities.

James Cartlidge: There are some.



HOUSE OF COMMONS

Q448 **Mr Jones:** I understand and am quite happy to accept there is a capability, which you cannot perhaps share with us, that was purchased. The basic question about what it has cost is not sensitive, as well as the timelines for what you are going to do with them. We do not want to find in eight years' time that they are still in a hangar somewhere, do we?

James Cartlidge: It is a good point.

Q449 **Mr Jones:** Can I just check one thing? I accept the reason why you cannot perhaps go into the tasking. Was that because of a political decision on costs or was it a capability—

Air Chief Marshal Sir Richard Knighton: It was an operational requirement decision made by Ministers based on advice.

Mr Jones: Right.

James Cartlidge: We can't say any more than that.

Q450 **Mr Jones:** I am just trying to get at whose decision it was, that is all— whether it was like the issue on E-7 or whether it was—

Air Chief Marshal Sir Richard Knighton: It was based on costs.

James Cartlidge: I will try to get information to the Committee.

Mr Jones: I am just trying to understand whether it was not about cost, but was actually, like you say, an operational decision.

Q451 **Chair:** It would be helpful for us, even if it was a private briefing, if you were able to give us some better understanding of that. To purchase five helicopters and then to mothball them, it is still taxpayer's money that needs to be accounted for.

James Cartlidge: I will take advice on the best way to communicate that.

John Spellar: We should be clear that we should not conflate sensitivity with embarrassment. They are not one and the same thing.

Q452 **Mr Francois:** Air Chief Marshal, you are adamant about the £720 million saving on E-7; we are unconvinced. Could you send us in writing within a week a detailed breakdown of how that £720 million is calculated, so that we can scrutinise it, please?

Air Chief Marshal Sir Richard Knighton: I will defer to the Minister on that, but I imagine the Minister will be happy to write, but it will be "What is commercially sensitive?"

Mr Francois: Sorry—yes?

James Cartlidge: Yes, we will respond.

Chair: Minister, well done for surviving your first Select Committee session. We are grateful for your candidness, openness and time today, along with Air Chief Marshal Sir Richard Knighton and Vice Admiral Richard Thompson. Thanks very much indeed for your time. Thank you to the Clerks, staff and Committee members. That brings our evidence session to



HOUSE OF COMMONS

a conclusion.