

Defence Committee

Oral evidence: [Naval Procurement: Type 26 and Type 45, HC 221](#)

Wednesday 20 July 2016

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Members present: Dr Julian Lewis (Chair); Richard Benyon; Douglas Chapman; Mr James Gray; Johnny Mercer; Mrs Madeleine Moon; Mr John Spellar; Bob Stewart.

Questions 135-207

Witnesses

I: Harriett Baldwin MP, Parliamentary Under Secretary of State, Ministry of Defence, Admiral Sir Philip Jones, First Sea Lord and Chief of the Naval Staff, and Tony Douglas, Chief Executive of Defence Equipment and Support, Ministry of Defence.

Written evidence from witnesses:

- [Ministry of Defence \(RNT0002\)](#)
- [Ministry of Defence \(RNT0003\)](#)

Examination of witnesses

Witnesses: Harriett Baldwin MP, Admiral Sir Philip Jones and Tony Douglas.

Q135 **Chair:** Good morning, everybody, and welcome to this further session on naval procurement in relation to the Type 26 and Type 45 frigates and destroyers. Before we begin our questioning, we would like to express our sorrow at the recent death on exercise of a member of the Armed Forces.

We would also like to express our thanks to former Defence Ministers who have now moved to other roles, to welcome the new Minister and to send our particular appreciation to her predecessor, Philip Dunne, who has been very helpful to the Committee in the past. Apart from the new Minister, Harriett Baldwin, will you introduce yourselves and say a few words for the record?

Admiral Sir Philip Jones: Good morning, Chairman. I am Philip Jones, the new First Sea Lord. I took over three months ago from George Zambellas.

Tony Douglas: Good morning. My name is Tony Douglas. I am the chief executive of DE&S, and I took up office nine months ago. There was a three-month handover with Sir Bernard Gray, and over the past six months I have been in office, and privileged to be so.

Q136 **Chair:** Minister, you have been in office for just—

Harriett Baldwin: This is my third day in office, Chairman. I want to associate myself with your comments about the very sad death yesterday, and to make the commitment that the MoD will of course be undertaking a full investigation and will obviously share that with the Committee.

Chair: You may not be aware that this Committee's Sub-Committee, which is led by my colleague Madeleine Moon, has done a specific inquiry into such deaths, so we would be very keen to know what has happened.

As all three of you are relatively new in your jobs, I cannot help feeling that it is slightly unfair on all of you to have to look into the slightly historic question of what happened with regard to the propulsion units for the Type 45 destroyers. We will bear in mind the fact of it being somewhat before your time in our questioning, and will fully understand if you feel that you need to write to us about some aspects of your answers to our questions.

Q137 **Bob Stewart:** Welcome, Harriett. It is really good to see you here, and best of luck in your thing. Don't worry, this is easy-peasy—I hope they have got that right in *Hansard*. May I ask all three of you about the national shipbuilding strategy and the Type 26 global combat ship? The first part of my question is, are they mutually dependent? Do they work beside one another? And will the rebuild for the Type 26 programme begin before the national shipbuilding strategy is finalised?

Harriett Baldwin: I will kick off on that one, if I may, but then obviously I want to bring in my colleagues to share their insight. I have yet to meet Sir John Parker, but his work on the national shipbuilding strategy, as you know, is due to report for the autumn statement this year. At its foundation is the commitment we have made to build the eight Type 26 on the Clyde. That forms part of the foundation and informs the whole strategy, but perhaps you want to elaborate a bit more on that, Tony.

Tony Douglas: On the national shipbuilding strategy, I have had the good fortune to sit with Sir John Parker. As I suspect the Committee will be fully aware, this is an important piece of work to look at the strategy for the long-term sustainable nature under which naval shipbuilding is carried out within the United Kingdom. There are discussions with both ourselves, obviously, as the Ministry of Defence, and industry. The premise is about driving sustainment through performance. As the Minister has mentioned, Sir John is planning to publish around the time of the autumn statement of this year.

On your earlier question, Type 26, therefore, is not mutually dependent upon the national shipbuilding strategy, although it will be a clear part of the content of what we will be committing to going forward, because the eight Type 26 frigates are approximately £8 billion-worth of planning going forward. That will be a fundamental element in establishing whether we are getting best value for money for the Ministry of Defence and, of course, the taxpayer. I imagine that—not just in my position as the chief negotiator, as it were, on behalf of the Ministry of Defence, but for Sir John looking at the more holistic landscape in which this construct sits—performance will be the common denominator in how we drive that to a different place.

Q138 **Bob Stewart:** Sir Philip, are you very happy with the idea of Type 26? Any problems with it, do you think?

Admiral Sir Philip Jones: Yes, I am very happy with the idea. Just to reinforce what Tony said, the great thing about the national shipbuilding strategy, from my perspective, is this. It is not for me to set the policy as to how it will sit with the Government, and it is not for me to set the strategy of how it will be worked out with industry—Tony will do that.

What I am pleased about is that it recognises the long-term and sustainable nature of the shipbuilding industry that we need to have in place. It will therefore fold in, in due course, deliberation on a whole raft of naval shipbuilding capacity over the next 20 or 30 years. But it is complementary to and in addition to the order for the Type 26, which will happen anyway. The national shipbuilding strategy will fold in other components of shipbuilding alongside that. There is a clear and separate commitment to Type 26, and I am pleased to see those both in place.

Bob Stewart: Thank you very much. I apologise to the Chair and I apologise to you, but I have to go, and that is why I had question No. 1. Forgive me for butting out—I'm not trying to be rude, but I have to go.

Q139 **Mr Gray:** I am not butting out at all.

Sir John is going to report in time for the autumn statement. When he does, will he also lay out the production timetable for the Type 26? If not, when will that come?

Harriett Baldwin: The building of the eight frigates is obviously part of what he is looking at in the national shipbuilding strategy, but the actual decision on the main gate will be a separate part of the overall process. They are independent but interrelated.

Q140 **Mr Gray:** So when will we know the production schedule for the Type 26?

Harriett Baldwin: You have heard from previous witnesses that it is a subject for ongoing negotiations. At the moment, we are unfortunately not really in a position to share with the Committee how the commercial aspects of those negotiations are going. That would involve sharing things about that.

Q141 **Mr Gray:** Obviously I wouldn't want you to share commercially sensitive information. That was not the question. But quite plainly, the capabilities of the Royal Navy depend on knowing when the Type 26 will be available. The question is, when will we know the production schedule for the Type 26? We are talking about Type 45s and Type 23s, and we need to know when the Type 26s will be built in order to think about that. Just saying that it is commercially sensitive does not answer the question. When will the production schedule for the Type 26s be available?

Harriett Baldwin: Obviously the discussions involve optimising the timing of that schedule. Tony, do you want to talk a little bit more about the precise timings?

Tony Douglas: Understandably, this is a key question that is very much at the heart of the work that I am undertaking on behalf of Her Majesty's Royal Navy. I understand your point that you cannot hide behind the veil of a commercial negotiation. None the less, the schedule component of this is at the heart of closing out an appropriate deal that maps the requirements of Her Majesty's Royal Navy, maps into the requirement of the Type 23, optimises value for money, and delivers a build schedule that drives performance with BAE Systems. We are right in the middle of that at the moment—

Q142 **Mr Gray:** I am terribly sorry, Mr Douglas—I hope you don't mind me interrupting—but that sort of language is straight out of a management consultant's logbook. The question is, when will we know when the Type 26s are going to be built?

Tony Douglas: That is a very clear closed question. Avoiding management speak, as you described it, I cannot give you a precise date because it is subject to a commercial negotiation. However, I do not believe that we are talking about this being drawn out for any long period of time. We are now committed to closing out a build schedule with BAE Systems. Industry has a big part to play, because it has to step up to the plate in driving performance through value and lead time compression. I

believe that we will be able to bring a definitive set of dates in the relative short term. I cannot give you a time and date at this point.

- Q143 **Mr Gray:** Okay, but if that is not announced by the time of the national shipbuilding strategy at the time of the autumn statement, surely that blows a pretty big hole in the national shipbuilding strategy. How can Sir John bring forward a sensible strategy for national shipbuilding if he does not know whether and when the Type 26 can be built?

Tony Douglas: I do not believe that risk will play out by the autumn statement.

- Q144 **Mr Gray:** You don't believe that risk will play out by the autumn statement. Good answer.

I have one further question on the national shipbuilding strategy and the Type 26. Presumably, quite a lot of the national shipbuilding strategy is predicated on European-type orders. To what degree does the Brexit referendum interfere with that timetable or with the outcome of the national shipbuilding strategy? What is the read-across from the referendum result?

Harriett Baldwin: We have heard very clearly from the new Government that Brexit means Brexit. That whole process is under way, obviously in a separate Department. We have also heard from the new Chancellor that he will be making an autumn statement. Those are the pieces of information that you will be as aware of as we are, but there is no impact of Brexit per se, in terms of how it affects the national shipbuilding strategy—in fact, all the activities that we are involved in across defence procurement. The fact that this is a national shipbuilding strategy should make it very clear that this is not something that is affected by the outcome of the referendum.

- Q145 **Mr Gray:** But if there are orders within the national shipbuilding strategy from EU countries, there is presumably at least a risk that they will withdraw them and have them built in Poland or somewhere else, which would presumably have an effect on the overall strategy, wouldn't it?

Harriett Baldwin: I would see the national shipbuilding strategy as separate from our continued commitment to be very proactive in defence exports across the whole range of different pieces of equipment that we make in this country. We certainly think that both of these ships are extremely attractive and compelling examples of the type of thing that we will be working hard to export as a country. I see those things as completely separate from one another. As the Committee will know, the national shipbuilding strategy and the supply chain relies very much on a domestic supply chain. I can see why the Committee is linking them, but I would look at them as completely separate.

- Q146 **Mr Gray:** That is clear—so what you are saying is that Brexit will have no effect whatsoever.

Harriett Baldwin: I have said what I have said, which is that obviously, the shipbuilding strategy is completely independent from Brexit.

Q147 **Mr Gray:** That's great news—you have said that Brexit will have no effect on the shipbuilding strategy. That's terrific, thank you very much for that. That's national news—"Minister says Brexit will have no effect on the shipbuilding strategy".

Harriett Baldwin: I have said that the national shipbuilding strategy is not affected by Brexit.

Chair: Thank you, James. John, do you want to come in on that?

Q148 **Mr Spellar:** I just want to follow up on that point and ask about the export potential of these vessels. Although we have done extremely well in aerospace, naval has been much worse. Have we any contracts or even expressions of interest on these vessels?

Harriett Baldwin: Not that I am aware of. Do you want to pick up on that one, Tony?

Tony Douglas: If I may, I will give a very high-level response, because as one might expect, there are some sensitivities around naval exports. The design of Type 26 is attractive to other nations, and consequently people are evaluating whether that might be an opportunity for us to export. Perhaps not surprisingly at the moment, our focus—as I commented to Mr Gray earlier—is now very much on resolving the master schedule and the value for money to be able to get into the Type 26 programme for Her Majesty's Royal Navy, but there may be longer-term potential outside the United Kingdom.

Q149 **Mr Spellar:** That would be most welcome, because up till now the record has been pretty poor. Although France, Germany, Italy and even Spain have been successful in winning orders worldwide, we have been utterly unsuccessful. I can argue as to the reasons for that—about whether we are over-specifying and others have got vessels that are more readily available—but I think we would want a bit more evidence that anybody else is going to be interested in this. It is very important in order to make this affordable. We would like some indication that the MoD have had a sort of change of mind that is adjusting to that world.

Tony Douglas: I think the sentiment that you describe is very clear. I guess there are three key elements of this: design, engineering and manufacture. It is fair to say that the manufacturing side of it is where the greatest challenge is in driving productivity, performance and value for money. That almost certainly will be part of the national shipbuilding strategy's challenges. There is great opportunity for this nation to capitalise on its excellence in the design and engineering components of it. As I referred to earlier, the Type 26 platform has outstanding capability. The design is approximately 60% complete, and I think that is an area of opportunity. As the Ministry of Defence, we are doing everything we can to support BAE Systems in taking that as a value-added proposition to others over time. It is therefore important to come back to those three thirds, because we are not equally competitive in each of them as we stand at the moment.

Admiral Sir Philip Jones: May I add a perspective from my service in the Navy? The distinction is that the Type 26 is a high-end anti-submarine warfare frigate, and it is deliberately designed to be so. Its design enables it to provide high-end protection both to our continuous at-sea deterrent forces and to our future carrier strike groups, and it is deliberately designed to be resilient, noise-quietened and highly effective in countering peer and near-peer threats in the anti-submarine warfare environment. That drives an element of design cost and implications into it, which means that a number of our close colleagues who are also looking for that kind of escort are in the game for Type 26, but many others are not, because it is beyond the needs of what they believe they have to have and of what they think they can afford.

The difference with the general purpose frigate that will come as part of the national shipbuilding strategy is that it is deliberately designed to be a much less high-end ship. It is still a complex warship, and it is still able to protect and defend and to exert influence around the world, but it is deliberately shaped with lessons from wider industry and off-the-shelf technology to make it not only much more appealing to operate at a slightly lower end of Royal Navy operations but of interest to a much wider set of our international partners. We in the Royal Navy will make sure that we work closely with industry to make sure that the eventual design of that ship is appealing to a very broad cross section of potential partners, which is a key part of the strategy for that ship.

Q150 **Chair:** Following straight on from that, and looking at the successes that other NATO navies have had in selling warship designs to other countries—the Danish example is one of a fairly basic ship that is very utilitarian but very versatile—would it be true to say that, when it comes to exports, you are expecting to do better with the general purpose frigate than with the global combat ships?

Admiral Sir Philip Jones: Yes, that is correct.

Q151 **Chair:** Of course, the general purpose frigates are a long way further down the line. First Sea Lord, I want to begin on the question of warship numbers generally. If I remember correctly, we had 35 frigates and destroyers at the time of the 1997-98 defence review. That then went down to 32 as a result of the review, then down to 31, then 25, then 19. It is often said that 19 frigates and destroyers is a woefully inadequate total. What would be your reaction to the prospect that, at any one time, we might have fewer than 19 frigates and destroyers? What effect would that have on the viability of the Royal Navy?

Admiral Sir Philip Jones: Nineteen frigates and destroyers is the number set in the last two SDSRs, both 2010 and 2015, and the Navy has adjusted both its inputs—people, training, manning and support—and its outputs, such as where we deploy our ships and where we operate, to reflect a destroyer/frigate size of 19. We are operating very comfortably within that threshold at the moment. We achieve that trade-off with our force generation challenge for how we get ships out of the door on

operations and with where the Government want us to put them. That is in balance and working well at the moment.

At the moment I am not anticipating, and not planning in my force generation criteria, any change to that, either up or down. We are at 19, and that is the policy and the reality. That is what I am delivering against, and there is no indication that I have to change that.

Q152 **Chair:** That wasn't quite the question. The question was: what will be the effect on the viability of the Royal Navy and its ability to perform its tasks if, for any reason, we found ourselves with an inventory of fewer than 19 frigates and destroyers? Given that so many of your predecessors in retirement say that they consider the figure of 19 to be woefully inadequate for our world needs, particularly if we are looking outwards more as a result of Brexit, would it not be a severe loss of capability for the Royal Navy were the total of 19 to be reduced, even temporarily?

Admiral Sir Philip Jones: Yes. I understand the question, and I have seen some of the evidence that some of my predecessors have given. Were that to come to pass—of course, you describe a theoretical case—we would merely have to do what we have done in the past and tailor our outputs to match our inputs. In the same way that the Navy had to adjust the way it delivered against a number of deployed tasks around the world, we would have to do the same as we came down progressively through those steps of numbers that you described. It is my responsibility to own the force generation of the Navy and be clear with the Government that for a set number of ships you get a set number of tasks. We would merely have to reset that balance.

Q153 **Chair:** Before I come back to Mr Douglas, I want to check another point with you. There is no room for manoeuvre, is there, on the out-of-service dates of the Type 23 frigates? The first that is due to go out of service is HMS Argyll in 2023. On the assumption that the numbers are not going to go below 19, as one warship goes out of service, a new one has to be coming into service. Unless I am mistaken about the out-of-service date for the Argyll, that means that the first global combat ship must be coming into service no later than 2023. Is that correct?

Admiral Sir Philip Jones: You are right on the out-of-service dates for the Type 23 frigates. They have been promulgated for all 13 of the class, and they begin in 2023 with HMS Argyll, as you say. It is not impossible that that could be revisited. I think you might have heard some evidence from a member of BAE Systems staff, who said that you could change the out-of-service date of a warship by looking at what you would have to invest in that platform to extend it further in life.

Our current judgment on the Type 23s is that in the mid-2020s they will be at a stage when to extend their lives would be a significant investment. We would have to look at not only their capability but the viability of their hull and their safety certification. It could be done. At the moment there is no plan to extend them and no money in the programme to do so. We are anticipating a solution emerging from the national shipbuilding strategy

that will be consistent with the decommissioning plan for the Type 23s, but, as you have already heard, we don't have that announced yet. That strategy is being worked up.

Q154 **Chair:** So if we were delaying the build of the Type 26 in order to save money, we wouldn't save money, because we would have to spend the money we saved on extending the life of the Type 23s, or we'd have to dip below 19 in terms of availability.

Admiral Sir Philip Jones: That is precisely the trade-off of capability, costs and time that is happening as part of the strategy. Of course, as part of that strategy not only the Type 26 but the general purpose frigate will play into that mathematical equation over frigates and destroyers.

Q155 **Chair:** Very briefly, Mr Douglas—and Minister, if you have any observations—my understanding was that for the Type 26 programme, which has been long in the gestation, the first cutting of steel was originally supposed to happen before the end of 2016, unless I am much mistaken. Can you throw any light on that? It appears that there is a cause of slippage, which I know my colleagues are about to investigate. Can you confirm that that was the original intention? We have heard that some suppliers to the Type 26 programme have been advised informally to mothball their contributions, potentially for as much as three years. Do you know anything about that? Is that correct?

Tony Douglas: In reverse order, £1.8 billion has already been committed to the Type 26 programme. In the main, that has been associated with not only the demonstration phase but committing to the long lead time items for the first three ships. So there is a very clear commitment from the Ministry of Defence to support the programme in that regard.

On the point about the cut steel date, that can be determined only once we have got to an investment gateway. We have not progressed through that investment gateway at this point—not until we have concluded the negotiation. I guess in part it comes back to the earlier question. That negotiation—without going into unnecessary detail, for what I imagine are understandable reasons—is about taking the end dates for Type 23 from service, optimising the build cycle to make sure that we have a master schedule that nests, but doing so where it gives maximum possible value to the programme. That is why the challenge with industry at the moment is around performance-based challenges and lead time compression. It is about closing in on a programme that supports the first part of the question, which is the Type 23 out of service dates. That is well in train. I would not like to leave this Committee with any cause for unnecessary concern in that regard.

Q156 **Chair:** So am I just wrong about the mothballing advice? Am I just wrong about the fact that it was originally intended to start cutting steel in 2016?

Harriett Baldwin: If I could add to that, the commitment in March to spend £472 million on the long lead items in the supply chain is a very strong one. It is generating activity, work and jobs right across the UK at

the moment with those first three ships. I do not recognise the phrase you used—"mothballing"—and I do not think anyone else on the panel would either. Tony is completely correct that no cut steel date has ever been committed to. No fixed date for the start of manufacture has been committed to, and it will not be committed to until it goes through that main gate.

Chair: Fair enough.

Q157 **Richard Benyon:** Sir Philip, could you tell an old land lubber whether the Royal Navy has ever built into its planning an attrition rate? Some of us were concerned when, in the last Parliament, the Minister in the Lords said that there was a zero attrition rate in terms of the capability of the fleet. We all remember what happened in the Falklands. A natural assumption in war is that you are going to take casualties. If we are down to such a small margin to guarantee capability, should we not factor in to that at least the chance that one or two of these vessels might get lost in a conflict?

Admiral Sir Philip Jones: We certainly factor in what we call force generation factors to how many ships we need to have in—

Q158 **Richard Benyon:** Is that Navy-speak for attrition rate?

Admiral Sir Philip Jones: It is not really attrition. It is the cycling of ships through the different stages of their life: coming out of build, going through work-up and training, preparation for deployment, then being away on operations, then coming back and recuperating. In some cases that is a fairly short recuperation—we change some of the crew, we refresh the training and they are off on operations again—but sometimes it is a much longer recuperation because they are going into refit. There is always an additional number of ships in the total fleet in order to service those in the forward-deployed fleets. That is language the Royal Air Force use for aircraft too.

There is no formal attrition buy when we are buying warships because we do not anticipate physically losing any of them in training. If we find ourselves in a warzone—as in 1982, for example—that tends to require a degree of reset on completion, depending how that war has gone—whether you have achieved your aims and what kind of navy you have at the end of it. You then need to work out, "Okay, so now what do we do?" Warships are so complex and so expensive that I do not think it is necessary, and it has never been felt appropriate, to buy some literally just to have as attrition stock. The force generation factors will take care of minor damage, collision and grounding, any other significant defect or any capability upgrade that we need to insert into the ship through its life in order to keep it at sufficiently high readiness and available for operations.

Q159 **Richard Benyon:** Thank you. In his letter to us, the Secretary of State said that a production schedule that reflects the outcome of the Strategic Defence and Security Review needed to be agreed before a date could be given for production. I do not know whether you have had time to

immerse yourself in the SDSR, but what we would really like to know, Minister, is which of the SDSR '15 outcomes have to be addressed to deliver what the Secretary of State said.

Harriett Baldwin: Obviously it is early days for me, but clearly the Strategic Defence and Security Review is the programme against which we are working in order to do all our defence procurement. In answer to the first question that we had from, I think, Mr Gray, it is clear that the precise nature of what we are calling the optimisation of the production of these ships is subject to these ongoing negotiations on the part of our defence procurement team, but the overall direction of travel and commitment to those headline numbers is something that we continue to be working across the whole Ministry of Defence to deliver.

Admiral Sir Philip Jones: I will add to that if I may, as the top-level budget holder for the Navy Command, which has of course the naval equipment programme within it too. We are still less than 12 months from the end of the SDSR and therefore we are still working through the MoD's annual budget cycle in order to set the SDSR assumptions into hard budgeting fact inside the Department. That work is still going on, so it is perhaps no surprise that we do not yet have the definitive annual budget cycle figures for a number of the SDSR programmes set. That is still taking place in our annual budget cycle round.

Q160 **Richard Benyon:** I am sorry to return to this, but it's a niggle that I have had for a long time. I completely understand what you say about building in refits and various other things. We have been told quite openly that the problems of propulsion systems can be fixed without a dramatic loss of capability, although our report may mangle that assertion a bit as we dig deep into it, but surely the experience with the Type 45 means that we should be building in some sort of attrition risk. If we are so close to the margins of the capabilities that the Government require you to deliver, having a zero attrition rate, in any sort of conflict, is a mighty optimistic assumption.

Admiral Sir Philip Jones: I would contend that for a class of ship like the Type 45, where there are only six, it would be interesting to see what kind of attrition buy you would set. I know, for example, without knowing the detail, that the Royal Air Force have an attrition buy for some of their fast jets to reflect the fact that they will lose some of these in training—some of them, they will have to bang out and they will lose the jet—but that is on a buy of probably several hundred aircraft. What the attrition buy would be for a class of six, I am not sure, but I am comfortable, in relation to our force generation factors, that we have enough time in the recuperation component of that force generation cycle to incorporate a significant capability upgrade as well as a significant power improvement programme upgrade. It's the work we are doing now—for example with the Type 45, to work closely through the DE&S and out into industry to work out the best way of enabling power improvement programme changes to those ships, synchronous with capability upgrade changes, in their major periods of downtime, to then bring them back to the fleet and usable. At the moment, I think we can do that in a way that keeps the

right number of those Type 45s at high readiness and available for operations throughout the period.

Q161 **Chair:** Given that we are talking about only half a dozen Type 45s and 13 Type 23s and given that it has been decided to replace the Type 23s on a one-for-one basis, it is very hard to see how the contents of the SDSR could in any way affect the production schedule. Obviously, we are not changing the numbers of ships and we are not changing the capacity in any short or medium-term sense—other than that, obviously, the new ones will be somewhat more advanced than the old ones—so the suggestion that somehow the provisions of the SDSR have any bearing at all on the timing of the changeover from a Type 23 to a Type 26 seems rather fanciful to me. I do not see how the Secretary of State's assertion could possibly add up—unless it is saying that the financing of this might be affected by the financial implications of some of the other aspects of the SDSR.

Harriett Baldwin: I think I heard you say there 13 Type 23s. The SDSR makes it clear that it is eight with the five general purpose frigates.

Chair: No, Minister, it is 13 Type 23s that are going out.

Harriett Baldwin: Yes, that is absolutely right.

Chair: That is quite all right—it is very easy to do. It is eight coming in to correspond to the eight Type 23s that are anti-submarine, and five later down the line. But what we are really focusing on today is getting the first of these ships out there. We are really talking about the first eight Type 23s to go and the first eight Type 26s—I must get it right myself—to come in. So you can see what we are up against—it is very hard to see how there could be any implications of the SDSR that would affect the timing of starting to replace these warships, other than if there were some financial prioritisation being given to something else, other than having warships generally in the SDSR, that might slow up the programme. Can anybody amongst you think of anything, even conceivably, other than that, that could be in the SDSR to affect this very important decision to get on with it?

Harriett Baldwin: In terms of national shipbuilding strategy, do you want to elaborate on that, Tony?

Tony Douglas: It is not an overly complicated conclusion to draw. It really is as simple as the fact that in the comparison of a Type 23 with a Type 26, the only word in common is "frigate". It is a significantly different capability. It is far more advanced, and consequently the cost associated with delivering a programme of that is materially different, as we are all aware. It therefore gets us back into the whole commercial context in which this now sits, in driving the performance to be able to get maximum possible value from the 26 programme to be able to furnish Her Majesty's Royal Navy.

Q162 **Chair:** So what we are talking about are the cost implications of the priorities in the SDSR—that has to be the case.

Tony Douglas: But I think the context of your question, if I may, was one in which it was a linear replacement of 26 to 23. Of course, it is in terms of frigate capability, but the global combat ship is a far broader capability in that regard, which First would understand far more than I.

Q163 **Mr Spellar:** It can still only be in one place at one time.

Tony Douglas: Yes.

Admiral Sir Philip Jones: I would add to that, from my perspective—this is very much Tony's world, but he is doing this on my behalf, as he kindly acknowledges—what we are working on now is the maturity of the design, the readiness of the industrial partner to be able to build it in a way we want to build it, the way it will be sequenced with other types of ships under the national shipbuilding strategy. It is not that we are not ready to build it, it's not that we don't have the money to build it, it's not that we have not already committed substantial amounts of money for the long lead items, as the Minister has already said. We are just optimising with the industrial partner the right way to go on to contract. That is the work that Tony is leading at the moment—and I am comfortable with that.

Chair: We have Madeleine and then Douglas, who has been waiting patiently.

Q164 **Mrs Moon:** Being a bear of very little brain, can you tell me what optimising going on to contract actually means, and how long have you been doing this? How long have you been optimising this contract? Quite honestly, it seems like a fluff of words to cover up the fact that you are hedging your bets in terms of spending the money, because you haven't got it yet. Just tell me, in plain, simple English, what you are talking about.

Tony Douglas: Getting the best possible deal for the taxpayer and Her Majesty's Royal Navy—it's as simple as that.

Q165 **Mrs Moon:** I got that bit, but how long is it going to take you to get this best possible deal and how long have you been working on this best possible deal? Quite honestly, at this rate, we will still be in the European Union and we won't ever Brexit because you can't negotiate. So what are we talking about? How long is this negotiation going on?

Tony Douglas: Forgive me, but in terms of the first part, it was very much doing the best possible deal for the taxpayer and Her Majesty's Royal Navy. In terms of how long, I have been involved in this for six months. It is probably the most complex technical negotiation that I have personally ever come across, and I have been involved in some other rather interesting cases. We are making really good progress, and it is important that the tonality that I put to this is one of solid and constructive progress.

In terms of prejudicing the outcome, which I clearly would not do, I will not be able to answer the final bit about whether it will be done by a week on Tuesday or next year. It will take as long as it takes for us to be able to satisfy the Ministry of Defence, the taxpayer and Her Majesty's Royal Navy

that we have landed the performance, through industry, that is necessary to deliver the programme. We do not see problems in that. It just needs to be done in a structured and disciplined way.

Through the SDSR we now have clarity on, as we referred to earlier, what we are backing off against with the Type 23s coming out of service. This is a mature conversation; it is not only just emerging. It is in an advanced stage. I put it to the panel that we are probably at a critical stage of challenging the way in which we now get the best deal concluded so that we can crack on with that build schedule.

Q166 Douglas Chapman: A number of our witnesses have argued that the key reason for the delay is that the MoD had insufficient funds to start the programme. Is that correct?

Harriett Baldwin: The commitment is to spend £8 billion—that is the budget envelope. We continue to operate towards delivering that commitment in that budget envelope. In answer to Mrs Moon's question about optimisation for those of us who have come across these kinds of things, it is really finding a solution to those parameters. The detail of that is the subject of the ongoing negotiation between colleagues.

Q167 Douglas Chapman: So if all the work you are doing with suppliers who carry the main burden of the contract were settled today, would you have the money to start the programme today? That is the point. Are we good to go on budget?

Harriett Baldwin: Well, I think it is very welcome that through the whole process, the Royal Navy has received a budget settlement that they are pleased with in terms of the commitment that the previous Chancellor made to the overall envelope that we are spending on defence and linking that to the growth in the economy. That is to be welcomed.

As we pointed out earlier, the allocation of the £472 million last March to do some of the long lead time items indicates that we are already sinking significant sums of money into the production schedule. Clearly, we have outlined how much money we are working with and the commitment to the overall budget percentage. The optimisation process is exactly what Tony's job is—to get the best value for money on an ongoing basis from our commercial suppliers.

Q168 Douglas Chapman: In a previous session, and it has been well documented, the former First Sea Lord's explanation of why the programme had not started was that the Royal Navy had run out of money for this project. That was quite a bold statement to make. If there is an element of truth in that, has the budgetary pressure that he suggested played any part in the decision to delay the production programme?

Harriett Baldwin: As I said, the budget is very clear. It is one that the First Sea Lord owns, and we have all worked together to deliver the required number of ships. We do not recognise or agree with the comments and some of the statements that you have heard previously.

We are pleased with the overall budget allocation and it is our job, as a team, to get the best value for the taxpayer while we go through the procurement process. First Sea Lord, why don't you add a little bit to that?

Admiral Sir Philip Jones: From my perspective, we went into SDSR '15 with a series of ambitions for future shipbuilding capacity and future growth of the Royal Navy, but they were just ambitions. We had a Type 26 programme that was in assessment phase. We were still working through the maturity of the design for the ship—we hadn't got it on order. The SDSR gave some very clear direction about future growth of the Royal Navy and future shipbuilding capacity, which involved getting the Type 26 confirmed. The SDSR did that, but it set the target at eight, rather than 13, and I understand that target. They wanted to optimise the build to provide the high-end anti-submarine warfare capability that we needed to protect the deterrent and the carrier strike groups.

That gave a definitive answer, but it also went further and said that we want two new offshore patrol vessels to be built, in addition to the three that were already in build. I can understand the requirement for that, and we will use those ships very effectively. It also set in train the national shipbuilding strategy, with a vision not only to fill the gap of the remaining five Type 26s in order to have a one-for-one replacement of the Type 23s but to go on to build a credible, capable but exportable general purpose frigate design that will not only enable the Navy to start growing in its destroyer and frigate numbers in the 2030s but to get back into the game of very credible and effective surface ship exports. I understand all that, but it is a complex reset of the surface shipbuilding programme, which was going to take time to work through in terms of both our annual budget cycle and the way that we are negotiating the best way to deliver it with our industrial partners. As you heard Mr Douglas describe, that work is going on at the moment. I am comfortable with that, and I can work inside it and see the ambition to grow the Royal Navy, which is at the heart of the SDSR.

Q169 **Douglas Chapman:** I think perhaps you understand some of the frustration felt by the Committee. We were given assurances that cutting steel would be starting this year, 2016. That has a huge impact and huge implications for jobs and skills in the kind of industry that you want to see flourish. If you are not making this kind of investment on the date that we need to do it, how is that going to play out in the longer term? How does it actually affect the equipment planning? Where are the gaps going to emerge? Again, Admiral Jones, some of your predecessors have expressed real concern, as has the Chair, about the gap that will exist as the Type 23s start to come out of operation. We will have multi-million pound carriers at sea without sufficient support. As one of my other colleagues suggested, if anything does go wrong—we have had problems with the Type 45s, for example—how will you meet those problems head on if we are not starting now?

Harriett Baldwin: Obviously, we have a very strong commitment to shipbuilding on the Clyde. Tony, do you want to elaborate a little more on some of those details?

Tony Douglas: It goes without saying that there is a shared urgency to crack on with this. As I said earlier, £1.809 billion has been committed to the first three ships already. The important thing about that £1.809 billion is the long lead time items—the things that are on the critical path and that drive the overall delivery schedule. For example, as an illustration, the gas turbines, the diesel generators and quite a lot of the propulsion system, even the propellers, have already been committed to because they are on the critical path of delivering the first Type 26s.

Q170 **Chair:** Can I just interrupt? We have quite a lot to get through. Let's get it clear that nobody doubts that these ships are going to be built sometime. What is at issue here is a revisiting of the disasters that we had in the past. Lord West has used the example of the gap between the Vanguard and the Astute submarines and the loss of skills. I would have thought that an even better example is the carriers, because those of us with long memories—that is most of us on the Committee—can remember when the carriers were proposed, and it was going to be, I think, £2.9 billion for the two of them. The figure ended up around £4 billion, and it was much later.

What we have been told by sources that we regard as very reliable indeed, including some in the industry, is that there is no reason why, for the building of the first ship, the steel could not have begun to be cut this year, as Douglas says, but for the fact that the MoD budget allocation is too small. Douglas, you referred to Lord West's evidence. We also heard evidence from Peter Roberts of RUSI, who said: "The problem with money—this year, in the Type 26 programme, the difference between what is allocated and the actual cost is somewhere around £750 million".

The message I am getting from outside experts, from within industry and from former First Sea Lords is that if this £750 million or some such figure were made available now, we could get on with it. If it is not, everything is going to be put off for up to three years and eventually these ships will be built—the commitment to building them is not in doubt—but they will be much more expensive and either we will end up dipping below the total of 19 frigates and destroyers being available or we will have to spend money keeping Type 23s in service longer, as we discussed earlier.

You are telling us, "No, no, it is nothing to do with that." Really, we believe that if the money was there, this programme could start very soon. Are we wrong about that?

Tony Douglas: I have fully understood. The bridge I was going to make from just qualifying the £1.809 billion is the fact that, if there is a number—you asserted a number, but if there is one—first principles tell us all that there are only two ways of resolving that: we either invest more on behalf of the taxpayer or we negotiate it out through performance, or a combination.

Q171 **Chair:** But it is hardly best value for money, is it, to penny-pinch now and then end up spending something like 50% or 60% more on the project later, as happened with the aircraft carriers?

Tony Douglas: If I could perhaps complete the point I was building towards, we are now in the heart of a negotiation. You quite rightly referred to history and best practice. I think they tell us all that committing programmes that have a low level of design fixity is normally the enemy of the good. I think everybody would concur that that is the case. Type 26, from a design maturity point of view, is more advanced than any of the previous classes. That is good news. It is 60% complete. I put it to most people in this room that if you were building an extension on the back of your house, if it was only 60% designed you wouldn't get it priced to maximise the position on behalf of the end user and the person who is paying for it. We are in a good place right now, but it is important to note that, with 60% design fixity, this is about driving it to closure, which is the road we are on.

Q172 **Chair:** So even if the MoD were suddenly granted a modest uplift in the amount of money available, on the basis that spending it now would save much greater costs caused by delay later, you are saying that you wouldn't want to do it any more quickly?

Tony Douglas: I am saying something completely different. What I am saying is that I have no governance over where the money comes from, but as the chief negotiator I would want to make sure that we get the best possible value for the taxpayer. That, for me, is the key point in all of this. We are on a road, I believe constructively, with BAE Systems, to drive to that position. It requires BAE to step up to the plate as well in regard to performance and in some ways almost to move in on the shipbuilding industry from where it was to where it needs to be to deliver the performance on an £8 billion programme like Type 26. That is the thing that we are resolving at the moment—that is the challenge, in a nutshell.

Q173 **Chair:** All I can say is that we will continue to monitor this programme over the next few years very closely and if it turns out to be costing a lot more because we did not start it as early as we could have with a bit more of an injection of cash at this stage, I don't think the public will be satisfied that they have had value for money. Any other comments on that?

Harriett Baldwin: I will just say that there are lessons to be learned in both directions from the past examples you have cited, Mr Chairman. I think it is important to acknowledge the point that you make about the potential additional future cost from delays, but I would also reiterate the point that Tony just made. Actually, if you start something or move into main gate without the adequate amount of specification—we all know where that has led the in the past and that is why I am backing the approach that he is taking.

Q174 **Chair:** That is a very good point, and is relevant to the Type 45 engine that we will be discussing as well. First Sea Lord, do you have anything to add?

Admiral Sir Philip Jones: No, I am content with that.

Chair: Douglas, did you want to?

Q175 **Douglas Chapman:** There is one question. You mentioned a few times, Mr Douglas, the maturity of the design and it being at that 60% level. I don't quite understand how you negotiate if you have only got your proposal design to that level. What are the design issues that still need to be resolved and is there any contingency built into the budget to account for that?

Tony Douglas: The design, as I indicated before, factually, is approximately 60% complete at the moment. There is a programme, obviously, to close out. There is a big part of that in the compartmentalisation of the ship's internal structure and the manner in which many of the communications systems are completed and integrated. I think it is probably important, because we are all aware of the fact, to state that today's modern capability is a systems integration solution that just happens to be on a floating platform—not to be confused with a traditional class of ship.

Getting clarity around the communications systems, the network backbone and the manner in which all that integration is concluded is on track, but that is another key part to the negotiation I referred to earlier, because we would not want to fix a price before we have got absolute clarity on that close-out. It is all interlinked with the negotiation I described. It requires performance, as I have stressed, from our industry to give us the value that, as a Royal Navy and as taxpayers, we all require.

Q176 **Chair:** Any idea of an end date for the negotiation?

Tony Douglas: I wouldn't want to prejudice that in this hearing today, if you don't mind, Sir.

Chair: Fair enough.

Mrs Moon: Possibly in a year—

Chair: Or three.

Tony Douglas: Or less.

Admiral Sir Philip Jones: If I could just add an operational perspective to that question? To absolutely agree with what Tony said, we have too often in the past, in the design of warships, raced too quickly to conclude its communications system, its integrated internal communications and its computer networking that enables it to connect to wider forces it operates with, and have paid the price in operational terms of fixing that too early.

That is the area of military technology that is probably evolving faster than anything else, so we want to make that call as late as possible to make sure the ship enters service as credible as possible as an integrated war-fighting platform, and future-proof for the way that capability will evolve over the next few years. I am entirely comfortable if that is the bit of design we are still doing.

Q177 **Douglas Chapman:** Have the Government allowed for contingency within that as well? You allowed for contingency within the Successor

programme. Is there a set contingency for this programme as well?

Harriett Baldwin: That is not something that we can disclose at this point in time.

Tony Douglas: I think it is quite important we don't get into a discussion around contingency. If you were negotiating with me and you knew exactly what my hand was, it would make your life an awful lot easier, Sir. This is about driving performance through value, in the fashion I described earlier.

Douglas Chapman: I know there are a lot of similar questions to come your way, but if you can do it for Successor, I don't know why you can't do it for the programme. Anyway, we will leave it.

Chair: Okay, point made, Douglas.

Q178 **Mrs Moon:** Basically, we over-promised and have under-delivered. Is that an accurate summation of where we have just got to? We over-promised what we were going to get in terms of the Type 26, and we have under-delivered in terms of the commitment to when we were going to start building and the timescale for actually replacing the Type 23s. Is that where we are?

Harriett Baldwin: I would respond differently. I would say that we are in the process of final discussions and negotiations—potentially not time-bound—to ensure that we get the very best outcome in terms of value for money for the taxpayer and delivering against the aspirations that have been outlined in the naval component of the SDSR.

Admiral Sir Philip Jones: I don't accept that language either. Until the SDSR said what did about Type 26 and gave the firm commitment, we had not promised anything. We had a programme in assessment phase, with a gradually maturing design, looking at what we might be able to deliver. At that stage we had an ambition that we might build 13 of them, but we hadn't promised that we would. We have now promised that we will build 8, and we will have a national shipbuilding strategy that will look at building general purpose frigates that will not only fill in the gaps but do more. To me, that is much more of a promise than we had before, so I am comfortable with the place we're at.

Q179 **Mrs Moon:** I think that is quite rich coming from someone who said that the SDSR was over-ambitious in what it promised.

Admiral Sir Philip Jones: Did I say that?

Q180 **Mrs Moon:** Yes, you did! I made a note of it—"over-ambitious". I particularly noted that, but I want to move on because colleagues have other questions.

Can you confirm that the need to refit the Type 45 has had no impact at all on the timing of the contract for the Type 26? There is a great deal of suspicion that the money that was going into the Type 26 is being held back because of the need to do the work on the Type 45.

Harriett Baldwin: They are obviously two separate and distinct things.

Q181 **Mrs Moon:** They are, but there is one pot of money.

Harriett Baldwin: There was specific money allocated in the SDSR for the Type 45—

Mrs Moon: And from what we've been told, it is not enough.

Harriett Baldwin: Tony, what would your observations be on those two things? You obviously regard them as completely distinct and separate.

Tony Douglas: My answer to your question is a binary no. They are not linked in any way. In terms of the outcome from SDSR 2015, there is a separate programme line for resolving power and propulsion modifications on Type 45. I am pleased to report that there is a project called Napier that has now defined what that modification solution looks like. We are now into negotiations with industry as to how best to effect that, along the lines of what the First Sea Lord referred to earlier, to be able to merge it with planned out-of-service time. From a budgeting point of view, to the best of my understanding it is not related to Type 26.

Q182 **Mrs Moon:** So no money has been vired across from the Type 26 programme into the refitting of the Type 45s.

Tony Douglas: Not from SDSR 2015, no.

Q183 **Mrs Moon:** From anywhere else?

Tony Douglas: No.

Q184 **Chair:** You say not from SDSR 2015, but that doesn't rule out the possibility that in the working out of SDSR 2015 you actually made the adjustment at that point—where previously one was anticipating the cutting of steel on the Type 26 programme in 2016, by the time you reached the SDSR, you knew that you were going to have to do this work on the Type 45. Let's extend Madeleine's question back a little further: in the working out of the strategic defence and security review, are you saying that there wasn't at or by that stage a reallocation of money that would have gone to Type 26, in order to repair Type 45?

Harriett Baldwin: I think the Project Napier allocation was £280 million in the SDSR.

Chair: Okay. All I am saying is that there is evidently—

Harriett Baldwin: It is broken out as a specific line item.

Q185 **Chair:** We are evidently facing this slippage in time, and we think that is because of the inadequacy of the money available. You are telling us that the inadequacy of the money available has not been affected at any time by the problem with Type 45. Is that right?

Admiral Sir Philip Jones: All I would add to that debate is that SDSR looked across a whole raft of military capabilities for all the armed forces and made choices about how it wanted to add to those capabilities. Trying

to pin the effect of a single one against a single other one is not something you can do inside the SDSR budget cycle, any more than you could pin the effect of deciding to buy P-8 maritime patrol aircraft or deciding to buy more F-35s earlier, or any of the other changes that were made anywhere in the defence programme as a result of SDSR. They are not individually connected; they are part of an overall package of capability solutions that the SDSR put together.

- Q186 **Mrs Moon:** Again, on the cost of the refit for the Type 45, where is the money going to be allocated between the MoD and industry? Who is going to bear the full cost of that refit? Who is bearing what costs? Can you clarify that for us? Because we are concerned—as the Chairman has said—about where this money is coming from and whether it is being slipped across from the Type 26. How much has industry been expected to bear and how much has the MoD been?

Harriett Baldwin: As you will be aware, when you take delivery of a ship against a contract, it gets evaluated against that. There will be what I like to think of in plain English as a sort of warranty period for a ship. There is a set of specifications against which a shipbuilder is liable and then if things happen after that, my understanding is that that becomes more of liability for the MoD. Tony, do you want to elaborate on that?

Tony Douglas: There are a number of things to say in response to the question. First, to deal simply with the last part of the question—about what part industry is contributing to this—the answer is that the MoD will be funding the modifications to Type 45. Industry will not be funding that for the reasons that the Minister referred to—that contractually, from the original position, all liabilities and warranties are not connected to the modification package that has now been designed.

On the funding point you referred to earlier—whether the money is coming from Type 26 to fund a refit on Type 45—as I have already commented, the answer is no. Within SDSR 2015, it was a separate provision.

The third part is that because we have now got a fix on what the solution is, we have entered into negotiations, as an outline position, with various different solution providers in order to find the best value-for-money way of delivering this in a fashion that is compliant with the First Sea Lord's programme and, in particular, if that can be backed into when the ships would be planned to come out of service, in any event.

- Q187 **Mrs Moon:** Carrying on the Minister's analogy, there is nothing wrong with the product; it was the specification that the client—i.e. the MoD—made, which the manufacturer was asked to deliver, that was at fault.

Harriett Baldwin: I think you will be aware, Mrs Moon, of the evidence given back in 2000 by Defence Secretary Geoff Hoon. He said we accept—this was from him at the time—that the WR-21, which is what we are talking about in terms of propulsion, “presents a greater degree of risk to the programme.” It was put on the record at the time that this was a very innovative propulsion system that had some risks. It hadn't been done before and therefore, in terms of what was specified in the contract, there

was an element of risk sharing. But there comes a point, in plain English, where the warranty runs out.

Q188 **Mr Spellar:** But the spec was wrong. It couldn't operate in hot temperatures.

Mrs Moon: Hot water. It doesn't like hot water.

Mr Spellar: We had that evidence here only a couple of weeks ago.

Harriett Baldwin: Obviously, there has been a full investigation—

Q189 **Mr Spellar:** Essentially, it wouldn't work if you put it in the Gulf, which was quite a likely location for ships in the modern environment. Therefore, the specification was wrong. It is very straightforward.

Admiral Sir Philip Jones: If I could step in there and give an operator's perspective, what we have found with the Type 45 is that there were a number of areas of the WR-21 gas turbine that we had to make improvements in, and we have largely done that. The improvements are in two main areas. One we call the equipment improvement programme, which is effectively to enhance the reliability, largely, of the WR-21 and its auxiliary systems. We have been doing that work progressively since about 2011, when a major report into the ships was made. That is largely done.

The second bit of the programme, which was funded in SDSR '15, is the power improvement programme. This is adding resilience into the ships. We are going to put bigger, more capable diesel generators into the ships which will be able to carry more of the operating load of the ship, which means we won't have to run the WR-21 so frequently. We can effectively use those diesel generators as propulsion engines in the ship, rather as they are in the Type 23s, which their predecessors have not been able to do. So we will get greater resilience and greater life out of the WR-21s and a more effective ship.

Now, one of the areas that we have had to address as a result of that is the air and sea temperature in which the ships have been operating. The WR-21 gas turbines were designed in extreme hot weather conditions to what we call "gracefully degrade" in their performance, until you get to the point where it goes beyond the temperature at which they would operate. You could bring systems offline and gradually adjust the way the ship was operating. We found that the resilience of the diesel generators and the WR-21 in the ship at the moment was not degrading gracefully; it was degrading catastrophically, so that is what we have had to address.

The ships have been able to operate pretty much right up to the temperatures at which they were designed to operate. In the high summer in the high sea and air temperatures of the Red Sea and the Persian Gulf, they occasionally breach the operating limit and we have had to adjust for that. To design a ship that can operate in all conditions at all times of the year in all places would be an extremely poor value-for-money thing to do. Therefore, we have accepted that we will not be able to operate all the

time in every place, every day of the year. But we are confident that the new diesel generators will give resilience to the ships, which will mean that they can go forward and operate comfortably and effectively from here on in.

Harriett Baldwin: To be fair, this has been gone over in great detail in various different reports over the years. The ship itself, in terms of the capabilities you require from it, is performing extremely well and you are very pleased with it.

Admiral Sir Philip Jones: Yes, it is. We have continued to deploy Type 45 destroyers around the world, including to the demanding—operationally and environmentally—waters of the Gulf. We have an almost continuous presence of a Type 45 destroyer there. We just brought the second in a row back from nine months' deployments in the Gulf, including in the high summer, and they have operated extremely effectively.

Their level of availability has gone up from about 90% to more than 94% in the past couple of years, largely due to the equipment improvement programme measures that we have made. We have greater reliability in the WR-21 gas turbines, which means that they can do what they are designed to do: provide their world-beating air defence capability in support of US and French carrier strike groups. They are delivering in the way they are meant to.

Harriett Baldwin: And the Type 26 engine design is completely different in specification—it has learnt from that.

Q190 **Chair:** We have spent a long time on certain aspects. We are going to finish at 11.45 am, so we now only have a limited time. I ask those on our side of the table and on your side to be as concise as possible.

Q191 **Mr Spellar:** Certainly, Chair, although I should say that I think the phrase "to gracefully degrade" may well enter the political lexicon of the future. Will the cost of the refit come from the equipment programme?

Harriett Baldwin: I think we have probably gone over some of the ground.

Q192 **Mr Spellar:** The answer is yes. If it comes out of the equipment programme, what within the tight equipment programme will have to be cut as a consequence?

Tony Douglas: It was already provisioned within the equipment programme as part of SDSR 2015.

Q193 **Mr Spellar:** Okay. The second question is this: will one Type 45 have to be withdrawn from service to test the effectiveness of the refit, and will that have any effect on our naval capabilities?

Admiral Sir Philip Jones: We are still working closely with DE&S as they set the optimum technical solution for how this power improvement programme work will be done, what the appropriate commercial strategy for that is, where the work will be done and who will be given the contract

to do it. Once we have done that, we will fold as much of that work as we can into the routine periods when these Type 45 destroyers are at lower readiness.

I described the force generation cycle earlier. At the moment, they come down into upkeep and update periods, which are already over a year long because we are constantly upgrading and updating the ships. We will attempt, wherever possible—I am confident that we can deliver this—to put these power improvement programme changes into their already planned upkeep periods so that we can maintain the requirement to have two of the six at high readiness, trained, manned and equipped for operations at any one time.

Q194 **Johnny Mercer:** I feel like I am degrading catastrophically today—I do not know whether it is the heat or the extremely technical questioning. I represent Plymouth, which is a maritime constituency. I absolutely understand my colleagues' questions, but I also understand the immense challenges around procurement and ensuring that we are keeping pace with the threat, which is ever evolving. What I am concerned about is whether you have allocated servicing and refit locations in the United Kingdom. These perceived delays are causing genuine concerns in Plymouth and other naval bases.

Admiral Sir Philip Jones: I absolutely recognise that. When I was down in Plymouth at an Armed Forces Day recently, I was talking extensively to your fellow MPs, the leader of the council, the lord mayor and a raft of other interested industry partners in Plymouth. The Royal Navy is responsible for the base porting of its ships and submarines, and we work incredibly hard to get the balance of that right both in terms of the appropriate base load of basing at each of the naval bases and in terms of the best value for money way of combining various ships and submarines in how they are base ported. We also have to look at the interests and concerns of the local community.

On the whole, we have got that broadly right in the past decade or so. We have certainly shaped Faslane, Devonport and Portsmouth effectively to be centres of specialisation for different components of capability. Devonport is badged as the centre of specialisation for amphibious shipping and for the whole of the way in which the Royal Marines generates littoral manoeuvre, fast boat and landing craft training. It also has half the Royal Navy's frigate fleet. It is a particular home for the ASW towed array frigates, which are increasingly based there. For now at least, it is a residual home for some of the nuclear submarines.

What we have done on top of that is look at where we should most appropriately refit our ships and submarines. Here I am straying into Tony's world, and I will defer to him very shortly, but we want to ensure we get the balance right between base porting and refit facilities. Devonport is clearly the long-term home of submarine and surface ship refitting. That is very clear.

Tony Douglas: Just to supplement that, in part of your question you asked whether the refits would be carried out onshore or abroad. For the avoidance of any doubt, they will be carried out in the United Kingdom.

Q195 **Johnny Mercer:** I am not sure I said that. I understand that they will be in the United Kingdom; my concern is where in the United Kingdom they will be. Is the development of the general purpose frigate being driven by the need to find a stopgap to span the decommissioning of the Type 23s and the delivery of the Type 26?

Admiral Sir Philip Jones: No, it is absolutely not a stopgap. From my perspective, it is a long-term solution. I understand the SDSR deliberation that what the Navy needed in its Type 26 was enough ships to have resilience in our force generation cycle to have enough available to protect the deterrent and the carrier strike group. Eight is the right number to do that, using our force generation factor.

Then the deliberation was on what else the Navy needs, where else we want the Navy to operate and the other tasks we want the Navy to do. The deliberation quite rightly was that that looked more like tasking for a general purpose frigate of a slightly lower specification, built slightly faster and cheaper. Crucially from my perspective, it meant having a smaller ship's company and producing something with really good export potential. That is what that will be.

Q196 **Johnny Mercer:** So can you ensure that there will be no trade-off in capabilities for the general purpose frigate in order to develop a ship for export?

Admiral Sir Philip Jones: No, there won't, and I do not think that that has to be in any way in contention. When we look, with our partners at UKTI, at the kinds of ships that navies around the world are looking for, we find that, not surprisingly, very many of them are in the game for general purpose frigates that have an ocean-going, deployable, sustainable capability, and that can conduct maritime security operations, but that are not going to get into the game of high-end protection of a carrier strike group or a deterrent submarine. Therefore, we do not think that we will have to make trade-offs.

The Navy is ready to look, as we always are, at the cost-capability-time trade-off that we need to get the right ship in at the right time and at the right cost, manned and trained in the right way, but we are not interested in something that cannot operate on the world's oceans as a reliable, dependable and independent frigate, which is what I am sure we will get.

Harriett Baldwin: The whole national shipbuilding strategy will obviously take all this into account.

Johnny Mercer: Of course. Thank you.

Q197 **Richard Benyon:** The offshore patrol vessels were brought in to do specific tasks, which are changing and the threat is changing. One of the jobs they did was fishery protection. Technologies—vessel monitoring

systems, satellite imaging and all those other things—can help in those sorts of roles. What are the defence reasons underpinning the need for an additional two—are they called Tyne-class?

Admiral Sir Philip Jones: River-class, but the first one was HMS Tyne — yes, you're right.

Richard Benyon: What is the defence reason for these two new vessels?

Admiral Sir Philip Jones: Well, you are absolutely right that they have proved enormously useful, flexible and reliable ships. There are four vessels that we have in service at the moment. Three are Tyne, Mersey and Severn, which operate largely in UK waters on fishery protection and offshore tapestry protection, and of course they are increasingly working with the Border Force and the Maritime and Coastguard Agency in support of protection of UK waters. Then we have a fourth one, which is permanently based in the South Atlantic.

We have had those ships in service for quite some time now. We are looking at replacing them with slightly larger and more capable ships in due course anyway, so that was already in the course of production to bring three of those in. The additional two will enable us to take a longer term view of how we replace HMS Clyde, which is a slightly larger helicopter-capable version of the OPV. We are looking at a number of ways in which we might use the fifth one. So, the fourth one is clearly a Clyde replacement. The fifth one can either be added into the mix for the three that operate in UK waters or it could be forward-deployed somewhere else in the world, or it could become a second vessel operating in the South Atlantic. All those options are available.

However, you will have seen in current operations the immense resilience in these ships to do a number of maritime security tasks. Again, they're not frigates, they're not high-end ships and they cannot protect a carrier or protect a deterrent submarine, but they can do operations in the Caribbean, which are largely focused on drug interdiction and also humanitarian relief. They are extremely good at migrant patrol as well, so we are bringing one of them—HMS Mersey—back from the Caribbean and it is going straight into the Aegean to work as part of the NATO force there.

So the newer ships will fold into that kind of tasking very comfortably. We have probably got the most developed piece of work we have ever had with the Border Force and the Maritime and Coastguard Agency about the precise tasking and location utility of these ships as we go forward. So having five of them will be hugely welcome.

Q198 **Richard Benyon:** I don't think we have time, Chairman, but I would like some time to understand, because these vessels are actually owned by BAE Systems, on a sort of leaseback system?

Admiral Sir Philip Jones: Originally, yes, they were, but we bought the original three—Tyne, Severn and Mersey—from BAE Systems a couple of years ago, because we realised that was a more effective way to operate

them. However, BAE Systems still has the contract to service them. Wherever they are in the world, BAE Systems looks after them and maintains them, and that is a contract that has served us very well. It keeps the availability very high.

Q199 **Douglas Chapman:** Peter Roberts of RUSI suggested in his evidence that a lot of the equipment on the Type 26s would be transferred straight from the fleet of Type 23s. Will that be carried out one ship at a time or two ships at a time, and if you are doing that, how does it affect our complement of submarine warfare ships at sea?

Admiral Sir Philip Jones: Yes, that is absolutely true. One of the things that we think will de-risk the Type 26's entry into service is the fact that much of its equipment will have been tested and proved by operating on the Type 23 frigates, in particular the Sea Ceptor missile system, the Artisan Type 997 air surveillance radar and a number of other things.

The Type 23 that we bring in to pay off has to be the donor platform to the next Type 26. We've bought new equipment for each of the three first Type 26s, to sort of get the class going, if you like; that is part of the long-lead items we have procured. So we will then have, as it were, a residue of decommissioned Type 23s' equipment, which we can return and recycle, and deliver to the builder to fit into the Type 26. We won't have to bring one in and stop it operating before we send it north; we've deliberately factored that in. I think that means that we will have much more resilience and already-tested equipment in that ship, which will bring it into service much faster than we've seen before.

Q200 **Douglas Chapman:** Right, so you've already carried out the assessment of the logistics of building the Type 26s in Glasgow while work with the Type 23s is ongoing in Devonport.

Admiral Sir Philip Jones: That's right, yes.

Q201 **Douglas Chapman:** And can you confirm that the two places I've mentioned will be the places where that work will be carried out?

Tony Douglas: Subject to an appropriate commercial outcome and best value for money to the taxpayer and Her Majesty's Royal Navy. That is why it is all wrapped back into closing this out with a tight, tidy, value-adding deal.

Q202 **Douglas Chapman:** So there is no direct commitment to shipbuilding on the Clyde.

Tony Douglas: There is a great commitment to shipbuilding on the Clyde, but the contractual negotiations with BAE Systems are still to be closed out to get the best possible value. It requires them to improve their performance—we are very clear about that.

Douglas Chapman: We will watch that very carefully.

Q203 **Mrs Moon:** Mr Douglas, you are very clear about your tight negotiating, and I can see you are going to be a hard man to be across the table

from. In all your discussions in relation to the contracts, are you going to ensure that the workforce retains the required capacity and skills for when the Type 26 programme begins? Can we have some assurance about the protection of workforce, key skills and key capabilities?

Tony Douglas: I think there is a shared desire by all parties to not only retain but build capability in the UK shipbuilding industry. There is a range of key skills that are absolutely essential in not only establishing these programmes but driving the performance that I referred to earlier. That will be a big commitment by the Ministry of Defence, and an equally big commitment, obviously, by the shipbuilders. That is something that we will not step back from.

Q204 **Richard Benyon:** Two very quick questions about apprenticeships. The Government have very ambitious targets for increasing apprenticeships, but this delay could have quite a dramatic effect on the recruitment of future apprenticeships. Duncan McPhee told us that “any further delay would be catastrophic”. I would ask you to comment on that. Is there any assistance that you can give to sustain BAE’s planned 150 apprenticeships on the Clyde before 2018?

Harriett Baldwin: Obviously the Government remain very strongly committed to apprenticeships. The apprenticeship levy will be coming in, which is very much a way of encouraging employers to take on apprentices and to develop them. We have also taken note of the 150 apprentices that you have just mentioned. What we would say is that the details in terms of staffing are clearly for our contractors, but certainly at the Government level, we have a wholehearted commitment to apprentices and apprenticeships across all of our supply chain, as much as possible. Isn’t that right, Tony?

Tony Douglas: I would like to be a little bit more animated now, if I may, because 37 years ago I started as an apprentice, so my personal passion on this one is hopefully evident. MoD is a big, big sponsor of apprenticeships. We have got some of the best programmes within the United Kingdom, currently. We intend to sustain that and build upon it. Our commitment to work with industry and the whole of our supply chain to do the same is something that is right at the top of our list.

Q205 **Douglas Chapman:** Richard mentioned that Duncan McPhee gave evidence. He argued that the delay would really have a detrimental effect on the workforce and that the additional offshore patrol vessels did not really provide the workforce with sufficient alternative work in the meantime. What is your view on that? How are you going to overcome that difficulty? Again, this goes back to the constant drumbeat of orders coming through. Clearly, this delay just doesn’t allow that drumbeat to even start. How do we overcome that?

Tony Douglas: First of all, that is fully understood. As I referred to earlier, BAE Systems are obviously mapping in detail the implications on the workforce, but it is important to put it into the context that there is an £8 billion contract—or thereabouts—of Type 26s. It is a great opportunity.

It is off the back of just short of £4 billion on carrier, and, obviously, at some stage we will move on Successor as well.

The shipbuilding opportunity for the industry, the workforce and the development of skills has probably not been so good for an awfully long time. I cannot comment on behalf of BAE Systems and the other shipbuilders on their absolute disposition at a point in time, but in answer to Mrs Moon's earlier question, our commitment is to work with them to make sure not only that they can sustain the critical skills but that they can build on them. If they do not, it will become a self-defeating prophecy; it will get less efficient, not more efficient. The only way we will be able to drive value for money for the taxpayer and a solution for the Royal Navy is to step performance up. That is right at the top of the list.

Douglas Chapman: I think the message from the trade unions and from this Committee is to push on and get ahead, because every day lost is a day of uncertainty for a whole workforce. That is the clear message that has come through. I am sure you will do that.

Q206 **Mrs Moon:** Sir Philip, this comes totally from left field and is nothing to do with today's inquiry, but I am picking up reports that quite a lot of emotional and psychological stress is being felt by sailors who are involved in the refugee crisis and are having to rescue women and children in the Mediterranean who are trying to get across. Given that we are going into recess, can I just highlight the importance—I am sure you are aware of it—of making sure that support is available for those people, who we are asking to do really quite a distressing job at the moment?

Admiral Sir Philip Jones: Yes, I am happy to do that. I acknowledge that completely. They have done superb work, and it has been a very varied workforce doing it: Regular Royal Navy, Royal Marines, many Reservists and medics from right across Defence Medical Services. We have kept that in very high focus throughout, even though the numbers doing it are quite small. They have had a very high level of ministerial and senior officers visiting them, and we are tracking their return from operation and debriefing them very carefully. You are right that they have seen some very traumatic scenes. They have done brilliant humanitarian work while they have been there, too. I am very happy to do that.

Q207 **Mrs Moon:** I am not questioning the work. I am questioning our capacity to actually give them the support they need when they return. I just want to stress the importance of doing that, because the summer months are going to be particularly difficult.

Admiral Sir Philip Jones: Yes, absolutely.

Chair: To conclude, I want to thank all the witnesses who have been here today, particularly the Minister, who has not been at all afraid to jump in at the deep end—to stick to nautical metaphors—after only two days in post.

I would like to make one suggestion. We have received a very impressive paper, written by retired Lieutenant Commanders Cartwright and Barnes,

who have spelled out the difficulties—very similar to what happened with the engines of the Type 45—that previously happened with the old Tribal-class frigates and County-class guided missile destroyers. They have said that they warned at the time that the abolition of the National Gas Turbine Establishment, known as RAE Pyestock, could lead to precisely those sorts of problems. I propose to send you all that paper, and I would be very grateful for a considered response to it before we produce our findings.

We have all stressed value for money. We fear that the taxpayer does not get value for money if we end up with a delayed Type 26 programme, with additional costs as a result; a refit of the Type 45, the costs of which will be borne solely by the taxpayer; and a naval capacity that may be reduced even below the 19 ships we have at the moment. Those are our concerns; if you found our questioning a little trenchant at times, that was the reason. Thank you all for your contributions today.