

Defence Committee

Oral evidence: [Trident missile testing](#), HC 987

Tuesday 24 January 2017

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Members present: Dr Julian Lewis (Chair); Douglas Chapman; Mr James Gray; Jack Lopresti; Gavin Robinson; Ruth Smeeth; Mr John Spellar.

Questions 1-46

Witnesses

[I](#): Admiral Rt Hon Lord West of Spithead, GCB, DSC, PC, former First Sea Lord and Chief of Naval Staff.

[II](#): Professor Michael Clarke.

Examination of witness

Witness: Admiral Rt Hon Lord West of Spithead, GCB, DSC, PC, former First Sea Lord and Chief of Naval Staff.

Q1 Chair: Good morning and welcome, Admiral Lord West. Thank you very much for agreeing to do this short session on the issues arising out of the Trident missile test, which were the subject of an urgent question and a series of what purported to be answers to the urgent question and its supplementaries on the Floor of the House yesterday. We were hoping to have the Secretary of State for Defence here today, but he declined our invitation on the grounds that he felt he would not be able to add anything to what he had said—or not said—on the Floor of the House yesterday, and, as our evidence session planned for today with Sir John Parker had to be postponed anyway, we are doubly grateful to you and to Professor Michael Clarke, who will be following you, for agreeing to step in at such short notice. Before I ask John Spellar to begin the questions, would you care to say a few words about your naval career, the relevant posts that you have held and the experience that you have, particularly relating to the nuclear deterrent and the testing of its systems?

Lord West: Yes, certainly. Can I just say first of all that you have put me down on your calling notice for this as “Admiral (Rtd)”?

Chair: Oh no, I would never have done that.



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Lord West: Well, somebody has put that.

Chair: Admirals never retire.

Lord West: Well, some of them do, but I am still on the active list, so I am just "Admiral". I say that just so we can get it clear.

Chair: I apologise for that.

Lord West: My first real involvement with the deterrent was when I was in a job called Director of Naval Staff Duties, where I was the First Sea Lord's briefer. Inevitably, because the First Sea Lord is responsible for the deterrent—the safe operation and effectiveness of it—to the Prime Minister, I got involved to an extent. I then got more involved in some aspects of it when I was the Director of Naval Intelligence within the central intelligence organisation.

My next involvement was when I was Chief of Defence Intelligence, overall intelligence, when I had a peripheral involvement with it again on certain aspects of targeting and things. Then I was involved as Commander-in-Chief, when clearly you are responsible for the actual day-to-day running of the boats, their logistics and all this sort of thing, so I was very involved in that and based at Northwood, where CTF 345, which is the organisation that runs the deterrent submarines, is based, in the bunker down below that building. So I was very involved with that then, and with making sure that we maintained a continuous at-sea deterrent and all those issues. Then finally, as First Sea Lord, obviously I had responsibility for the deterrent to the Prime Minister.

Q2 Mr Spellar: Admiral, the Trident missile test last summer was actually the fifth to have taken place since 2000. In your experience, how routine was it for the outcome of these tests to be publicised by the Department or the Government?

Lord West: It was very routine. It was something that was seen as a way of showing how well the whole system works. It was very good for the men and women involved in the ballistic missile programme—at that time, only men could serve at sea of course. It was very good for the crew of the submarine, because normally they are unsung heroes, out there 24 hours a day, seven days a week, and often for 100 days—that was how long some of the patrols lasted.

This demonstration and shakedown operation, the DASO firing, is done to show that the submarine that has come out of refit, where it will have had certain work done, is working correctly and that the crew who are running that submarine are fully worked up and are able to make sure the submarine is in the right place and can do the right things—that it is all set up and the whole firing can take place properly. It is assessed by an American and British team. Exactly the same assessment is done of American submarines.

Generally, our submarines do extremely well—they come out of it extremely well—and it is very nice to be told they have done well. You see



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a picture of the missile streaking away and, in the last 20 years, every single one, as far as I'm aware, has had that film of the firing done. There was a discussion, I think, on one firing, when because of the world situation they thought, "Should we do that? Shouldn't we?" And it was decided even then still to do it, so it is absolutely normal for that to be done.

Q3 Douglas Chapman: The 2012 launch was attended by James Jinks and Professor Peter Hennessy, and I have the resultant book here. That footage was also released online. How common is it for non-governmental and non-military personnel—people such as those gentlemen—to be present at test firings?

Lord West: I would not say it was common, but it happens. There is a support ship that is a certain distance off. You know where the submarine is because it dives and it has got a very tall mast, so you can see where it is, because you want to see the firing. There are people who go there who are not directly involved in the ballistic missile programme, people like Peter Hennessy. I think he has been to two actually. I think he has done two of them now because he did get very involved with the submarine service and wrote that very good book on the silent service.

So there are people there, and of course not only are they there, but people who are uninvited are there. Normally, the range craft chase some away, but the Russians, for example, regularly used to have a ship to monitor it—and of course they monitor it from space as well—and in Peter Hennessy's book I think he quotes the Russian ship congratulating the British submarine, saying, "Jolly good firing, well done!" Because we give them advance warning, inevitably—first of all we have to inform all aviators and civil airline people, because it is firing across the Atlantic, but also we have an agreement that whenever we do these sorts of firings, whether an American firing, our firing or whoever, we warn Russia, so that the Russians do not think that we are starting world war three. They are very well aware that this test is going to happen.

Q4 Douglas Chapman: Would they also be aware of things when they did not go well?

Lord West: I am sure that they are aware that the missile did not go all the way down range to off Ascension where it is finally assessed and everything.

Q5 Douglas Chapman: I have just picked up a quote from the book, and I have spoken to Feargal Dalton, who is one of our councillors in Glasgow and who was at the last test in 2009. The book describes how they gathered at the DASO hotel. When the US contingent arrived, it looked like somebody in Britain in the special nuclear relationship was going on a triennial holiday with them, a mix of a jolly and a reunion, with the launch of an intercontinental ballistic missile thrown in. Given the closeness of that relationship, how do you think that this malfunction—call it what you will—will affect it, and the confidence in and credibility of the Royal Navy as seen through American eyes? How will that be



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perceived? According to Feargal, this was a pretty big deal, in terms of his career and where he was in the pecking order, so it was an important event. How do you think that has affected that relationship?

Lord West: It is a very important event and, when it goes successfully, it is a great celebration. On this occasion, it would appear—I don't know, but it would appear—that there was some issue with the actual missile. The missile is an American missile and exactly the same one as the Americans use. The way we select them is that we select from the store as we pick, "Well, we'll have that one and that one", so there is absolutely no difference between them. This was a telemetry missile of course. What it would mean is that if something went wrong with that telemetry missile, that is primarily an American issue. I am sure that it was a minor thing and was resolved—that they know what did it and what exactly happened. But yes, it is a big occasion. It is the culmination of all the work—the crew, all the time, that huge refit—with everything done to show that this system absolutely works and can get to sit there. I believe that it is the ultimate guarantor of our security and is very important, so quite right that there should be a celebration when it all goes well.

Q6 **Chair:** Is it true to say that on some occasions at least they do not publicise the date of these tests in advance? For example, I have seen a report in *The Sun* newspaper which announced in advance that the test in question—the one that went wrong, or so we read in the press but cannot learn on the Floor of the House—was anticipated and prefigured, but that the date was being kept secret. First, is it the case that they often do not announce the date in advance? Once the tests have taken place, is there any possible security reason for not saying what the date was after it has happened?

Lord West: There is no reason why you cannot say you did a test on a certain day. The date you actually do it sometimes can be variable, because there are all sorts of factors, so there is a window given for the safety check—when a firing could take place. Windows are put in there. Indeed, we pre-programme those. We have almost certainly got the next DASO—that is, window—already arranged for the next submarine that will have to do it. That has to be slotted in with American DASO firings, so it is quite a complex plot.

Q7 **Chair:** Because of the absolute blanket refusal to give any substantive information at all about this matter, we do not even know what date the test took place on, but I have heard a suggestion that it was on 20 June. Are you in a position to know whether that happened?

Lord West: I absolutely do not know the date of it, but personally I can see no reason whatsoever not to do that. I could probably phone up Mr Putin—I did a favour for him once, rescuing his submariners when they were drowning—and ask him what it is, and I am sure he will tell me.

Chair: He will probably give us a film of the launch, as well.

Lord West: Well, I don't know about that, but he certainly would be able to know the date.



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Q8 Jack Lopresti: Douglas has ventured onto an aspect of what I was going to ask. But yesterday I asked the Secretary of State what I thought was a fairly basic and rudimentary question—that we would be sharing the data, the information about the launch, with our US partners: the MoD and the US Department of Defense working together—and he refused to even answer the question. I think we can take it that any technical detail about the launch would be passed on, because of the close working together of us and our US partners.

Lord West: We are joined at the hip with the Americans in the deterrence world—actually, in the submarine world as well—and in the intelligence world. People think that it is expensive, but one of the reasons that the costs of Trident are kept down are that with a test like this, all the range facilities—that is, fixed-wing aircraft, satellites, all the stuff on Ascension—everything, effectively, is funded by the Americans. So the Americans are taking that data. They, with us, then extrapolate it all. I absolutely understand why one mustn't give away secrets and things, but I believe one mustn't be stupid about it; one has got to be sensible about these things. Quite clearly, we work closely with the Americans on it; it is on an American range. We are doing an American firing there and the data is important to both of us, because it is an American system and it is useful to making sure that the system keeps operating effectively.

Q9 Ruth Smeeth: Good morning, Admiral. From your experience, what is the minimum level of briefing provided for the Prime Minister and/or the Secretary of State on the preparations and the outcomes of the test firing?

Lord West: It is difficult to know exactly, because I never went and briefed the Prime Minister one to one. What I would do is put in a report that went in to say there had been a successful DASO firing. Then, when the results came in later—there was one when I was there; it was only every four years—I thought it quite amusing to show the accuracy of the system by overlaying where each warhead would have gone on Downing Street. I think that Tony Blair was very pleased that a couple of them hit the Chancellor's house. That was a way of showing what had happened; that was after it had all been fully analysed.

What exactly is told to the Prime Minister, I don't know. I imagine that one of the Cabinet Office people would say, "We have had this report from the First Sea Lord". Whether they slide it through with a covering note, I don't know. One of them might talk it through, or he or she might possibly talk to the Secretary of State. I was never aware of that, but that was the report that I put through. They always had a report, as I understood it. I was told that that was what I had to do, from the First Sea Lord, about the firing.

Q10 Ruth Smeeth: How soon after the firing would you have provided that report?

Lord West: It was really the next day or couple of days, but the fully analysed things were later.



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- Q11 **Mr Gray:** When you talk about the overlaying of Downing Street, you seem to be intimating that there were several firings in one DASO. Is that correct—or just one missile?

Lord West: No, just one firing.

- Q12 **Chair:** In a *Daily Mail* article that you wrote when this whole discussion—I hate to use the phrase—blew up, you said that you feared that perhaps this had been the work of some spin doctor at Downing Street trying to cover over, if not cover up, the question of something having gone badly wrong with this particular test.

First of all, why do you think that would have been a foolish thing to do? Do you believe that there is any prospect at all that the Prime Minister of the day—which of course was Mr Cameron in June of last year—would not have known about this matter not working out according to plan?

Lord West: Can I take those questions in reverse order? I find it inconceivable that the Prime Minister did not know that there had been a firing and that it had not quite gone correctly, in terms of the missile. I do find that inconceivable. Although I find it inconceivable, sometimes inconceivable things happen, but I would be amazed. To me, it would show that the briefing system was not working correctly.

- Q13 **Chair:** This may be outside your sphere of competence, in which case please say so. If he were informed of something like that, would it be at all likely that he would not share that with his head of communications at Downing Street?

Lord West: I cannot really—all I would say on the business of special advice is this. Having been in government—admittedly, compared with some of you, not for long; I did three years as a Minister, which was quite a shock for me, I have to say, having been a First Sea Lord, as it was a different world—I was, at times, rather surprised by the ability and power of special advisers to give advice. This irked me, where I was working—a spotty youth who had just come from university seemed to think they knew more about counter-terrorism than I did.

Anyway, I mustn't get personal about these things. I am very nervous of the fact that often, advice is given that I feel is typical of that sort of advice, which is why I said it. But I do not know that that is the case. It is typical of the sort of advice which is sometimes given, because they have not got the experience of the world or understanding which, to be quite honest, many MPs who are in the jobs as Ministers do have, although they get used to listening to these advisers. That is why I am saying it.

- Q14 **Chair:** I thought I might have been able to shine some light on this. My parliamentary office took an extremely irate telephone call from Sir Craig Oliver vehemently denying that he or his team had known anything about this test—I referred to it on the Floor of the House yesterday. However, when our Clerk contacted him to invite him to appear before us today, he responded that he did not wish to attend as he had left No. 10 to work for the remain campaign before the test firing took place. Why he should have been so assertive in the matter when he had not been named is a



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bit of a mystery to me. Nevertheless, would you have thought it at all likely that if a missile firing had gone wrong, as this one apparently did, such a matter could be kept secret, given the number of observers who would have seen what happened?

Lord West: I think that anyone who thought that could be done was being very stupid and foolhardy.

Chair: That it could be kept secret?

Lord West: That it would not emerge at some stage. As I said, having been there for certain things happening on other occasions, I can just imagine someone saying, "Look, there's a Brexit vote going on. Everyone's eyes are down everywhere else. We don't want to say this, because if it comes out now, will it affect things?" I don't think it affects things at all, to be quite honest. I don't think it has any effect on the decision to replace the submarine deterrent. I don't think it mattered for that, to be quite honest. But I can just imagine someone putting all that together, saying "Let's not do it" and giving that as firm advice. I can just see it happening, but I have to say that this is supposition; I just don't know.

Q15 **Chair:** You would know this better than the vast majority of people. You accept the general principle that we do not comment on operational detail about the operations of our submarine force, whether the deterrent force or the attack submarine force. Do you believe that that principle would be in any way undermined by an honest statement of the facts that happened in a test if something did indeed go wrong, as everybody seems willing to say to the press but not to MPs in the House of Commons?

Lord West: I think that for a DASO firing—because it is this big junketing event that everything has built up to; people know it is going on and there are people there—it does not affect that principle at all. I absolutely believe that if you are doing secret trials or special trials, you do not give any information. I absolutely agree that you don't say where our submarines might be or where they have gone or things like that generally, but I do not believe this actually affects that at all.

Chair: That is very clear. Thank you.

Gavin Robinson: Perhaps I should declare that I am a youthful, not-so-spotty former special adviser.

Lord West: I am sure your advice was absolutely spot on.

Gavin Robinson: Quite right—and not on such issues of state.

Mr Gray: It was often rather spotty.

Lord West: Thank you, James.

Q16 **Gavin Robinson:** You have touched on your experience previously, in which you would have compiled a report for the Prime Minister and surmised that Cabinet Office officials would then brief the Prime Minister.



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In circumstances in which things don't go well, do you have experience of other test scenarios for which you have been called to come to Downing Street to explain what went on, or is that level of interest in such events really not there?

Lord West: I have been involved with things that have gone wrong with other weapons systems, but they are not the ultimate security for our nation. The deterrent is so important for our nation that I think any Prime Minister takes a huge interest in it. It is the first thing they are briefed about when they take over; they have to write letters to put in the second safe in the submarines. They have to decide, if Britain is being destroyed, what they will say to their submarine commanders. We will never know what each Prime Minister has said, because it is given back and then destroyed.

It has a focus for them, which is why I find it inconceivable that if something had gone even slightly wrong in this test, which we do only once every four years, the Prime Minister would not have been told. I think that is extraordinary. If that is the case, No. 10 have lost a sense of their priorities. Although we are all focused on Brexit and everything else, we are in probably the most dangerous world I have known in 51 years on the active list. The deterrent is the ultimate guarantor of our security. Within No. 10 they should be aware of that. If they are not making sure the Prime Minister is aware and is briefed, they are failing in their duty.

Q17 **Gavin Robinson:** Sure. I think you have described the Government's position as bizarre and stupid, and you have rehearsed some of those points this morning. It is easy for you to reflect on what you might have done differently had you still been in the position of First Sea Lord and had a failed test firing of this nature occurred. Do you have any advice to offer today on what you still believe the Government should come forth on, and if they are to give further information, what that should be?

Lord West: I don't think there is much more they can actually do now, to be quite honest. I think they have effectively said that the system is fully functioning and is working as we would expect it to work. I think there is nothing more that can be said now. None of this needed to have happened. Interestingly, you could argue that if something had gone very wrong with the missile, such as if there was some fundamental flaw that meant the Trident system no longer worked—there absolutely isn't, but if there was—I think you would think about how you played this very differently. It would be a very different thing.

It seems to me quite clear—although one never knows absolutely—that this was a minor malfunction in something to do with telemetry. Because we are always so careful with people's lives and making sure people are safe, whenever anything goes slightly wrong we cut it down and destroy it. I have been involved in things years ago, such as when we had an aircraft missile called a Seaslug and we fired one into Wales. Those sorts of things happen, but you don't go and talk to the Prime Minister about that unless their constituency happens to be there.



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- Q18 Chair:** If they had basically followed your advice and said officially exactly what you have said, am I right in thinking that this episode would have had little more significance, even in financial terms, than when, for example, an expensive RAF Tornado jet or something is written off in an accident and—hopefully—no one is killed? Hasn't the way in which the Government have handled this turned what would have been an unremarkable incident into a cause of great concern and actually cast doubt—where doubt should not be cast—on the efficiency of the Trident nuclear deterrent system?

Lord West: Yes. That is why I got so agitated about this. I have no doubt whatsoever that the Trident system works superbly. It is the best of its type in the world. It is a genuine second strike capability. Unlike ICBMs, it cannot be taken out by a pre-emptive strike. No one has found one of our submarines, as we know from the detailed analysis, in the whole time that we have been running the continuous at-sea deterrent, which is since 1968. The only time it came anywhere near it, because it was so quiet, was when one of our submarines bumped into a French submarine and neither of them knew what they had bumped into. You cannot get at it. The Russians know they cannot get at it. The Russians are desperate to find out about them. That is why I am very concerned that they are sending submarines off our west coast again. They want to be able to find out signatures to be able to do this, but at the moment they can't. So I am convinced it is the best in the world. What this has done is thrown doubt on that, and there was no need.

I sit on the Labour Benches, but I don't like seeing our Prime Minister embarrassed. She was thoroughly embarrassed. If you are a Minister, don't embarrass your Prime Minister. It is not a good career move. What a mess the whole thing was.

- Q19 Chair:** And it should be pointed out for the record that she became Prime Minister five days before she had to do the debate—

Lord West: Absolutely. None of this need have happened.

Chair: If it had been reported properly at the time.

Lord West: Indeed, it would have been lost in the ground wave. With Brexit and everything else going on, it would have been absolutely lost in the ground wave. If they had been honest, there would have been no great big *Sunday Times* story about it. End of story.

- Q20 Douglas Chapman:** Can I ask a very quick question about Vengeance? Sir Michael Fallon made it clear yesterday that it was back in operation and had been certified and so on. Where a problem exists, such as misfiring or the issue we had with this particular launch, how can that be certified as being okay in terms of its ability to do the job it is required to do if there had been a failure in the test? Who would tick the box and sign that off? Does it go as far as the Prime Minister, or is it at a more naval end?



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Lord West: Well, it would never be the team on their own. Basically, the submarine was put in the right position. It was in the right mode. Everything was done correctly, with all the right firing checks. Everything was done internally and the missile was fired. It fired properly and went up in the air, so that was a correct firing. You know that you will fire a missile properly. From everything that has been said, it sounds as though there was an issue with telemetry within that missile. If you are not 100% certain, you do not even take a risk. It sounds as though they were not 100% certain of some of the telemetry and therefore took it down. That is the missile itself. That is an American issue.

Q21 **Chair:** If it is a telemetry issue, does that mean the missile did not veer off course at all, but that the telemetry was telling you it was veering off course?

Lord West: I just don't know what was going on. I can speculate. I have had people mention things and it sounds as though they were getting some inconsistent readings and said, "We are not going to do this. We will turn it and put it somewhere safe and drive it into the ocean just in case something has gone wrong."

Q22 **Chair:** So it is perfectly possible that it was not malfunctioning at all, but that you were simply getting a misreading and a signal back—

Lord West: Absolutely. It is perfectly possible, from what people have said, but I don't know that it would have gone—

Q23 **Chair:** So people are assuming the worst—that the missile went haywire—when in fact it might have been working perfectly well?

Lord West: Yes, but I do not know the details, so I speculate.

Q24 **Chair:** But that is a possibility.

Lord West: Absolutely. As far as Vengeance goes, she is absolutely capable and has got all the ticks for firing these missiles. What she will have now are live missiles that will not carry telemetry and all that sort of thing, but will have British warheads on them, and she will be ready to be part of the patrol cycle.

Q25 **Mr Gray:** Can I bring you back to the question of transparency and whether or not there should have been transparency? A moment ago you seemed to indicate that, as it was relatively minor in this case, it was foolish not to have made a straightforward announcement, but had it been a much more serious failure, such as a failure of systems—perhaps an explosion on the submarine, to take an absurd, extreme example—it would have been important that that was not transparent.

Lord West: I hope I didn't say that.

Mr Gray: That is what I am asking about. Should this transparency—

Lord West: One has to use common sense. If there was an explosion in the submarine and anyone honestly thought that was not going to get out, they would be deluding themselves. If it was some major problem with the



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missile and someone had said—let's make something up—"There's a substance in there that we didn't realise had reached the end of its life; none of the missiles will work," that would be a different issue. That is something where one would have to think very hard.

- Q26 **Mr Gray:** All right, but the principle is that there is a relativity in transparency. Some things you can be more transparent about because they are minor or you cannot possibly hide them; other things would be more important and would actually give the wrong message to our enemies.

Lord West: I think that is a fair assessment.

- Q27 **Mr Gray:** So when you made the remarks to *The Sun*, for example—when did you discover that this particular incident was of the "let's be transparent about it" nature, rather than the catastrophic failure nature?

Lord West: I don't think I talked to *The Sun*.

Mr Gray: Well, the remarks you made to whomever it was.

Lord West: I wrote something in the *Mail*. I had already been led to believe that there had been a minor hiccup with the missile.

- Q28 **Mr Gray:** By whom? The Prime Minister, on television on Sunday, simply said she wasn't going to discuss it and she was convinced that the thing was fine. A moment ago you said you don't know what went wrong.

Lord West: Clearly I don't know, but that is what I have been led to believe.

- Q29 **Mr Gray:** So you don't know what went wrong. What led you, therefore, to be clear that we should be transparent about it? For all we know, sitting in this room today, this might have been an absolutely catastrophic failure, because no one has told us.

Lord West: Well, if it was catastrophic, I would have been transparent about it. I would have said that we had a firing, it all went well, we got a tick in the box for the submarine, but there was a minor malfunction with the missile.

- Q30 **Mr Gray:** But you see my point. It is fine to say, "Let's be transparent about these things"—of course we should be—and it probably was badly handled. The Prime Minister could easily have said something. None the less, we still do not know to this day whether these missiles failed. We do not know whether, if Putin fired a missile tomorrow, we would be able to respond in like kind, because we do not know what the failure was.

Lord West: You have now got me worried. I do hope that we do know what the issue is.

Mr Gray: We don't.



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Lord West: No, except we have been told by our Government that the system is functioning correctly. I am old-fashioned, and I tend to believe what Governments tell me.

- Q31 **Mr Gray:** No, because yesterday in the House of Commons the Secretary of State went to great lengths to avoid saying whether the missiles were functioning correctly. He blacked off any such question and repeatedly said, "The submarines are working correctly and the boat passed her tests." He actually refused to say what went wrong with the missile.

Lord West: Well, I must have read this in a different way. I think he said that the Trident system still was functioning and working correctly.

Mr Gray: He did, yes.

Lord West: I think he said that, which means that—the Trident system is the whole thing from the submarine right through to the missile and into the warhead. He said that, and therefore I am reassured.

- Q32 **Mr Gray:** But you see the point I am getting at. It is all very well being up front and transparent about these things, but we have agreed that there is a relative scale of transparency and certain things we cannot be transparent about.

Lord West: Absolutely.

Mr Gray: Given that that is the case, since there was no announcement made about what actually went wrong particularly—

Lord West: I think one should be as transparent as one is able to be. When you know that people are expecting something, when you know it is being monitored by other people, like the Russians—when you know all that is done—it is a silly thing to try to hide it. It is just a stupid thing to do. It does not affect all the other rules. For example, I would not expect to tell anyone about all the trials we did with the Type 45 so it could shoot down a ballistic missile. You do not tell anyone about any of that. Of course you don't. We all understand that. But this is a big bonanza occasion. We do this once every four years. It was inevitably going to come out. If anyone thought this wasn't going to come out, they were in cloud cuckoo land. The Russians probably had it nicely filed away and were thinking, "I wonder when we might actually use this when they're spouting on about it." Therefore, it would be much better to come clean.

Mr Gray: Okay, I have one final question on this.

Lord West: Sorry, just to clarify, James, I do believe that our Trident system, from the submarine through to the warheads, works absolutely. I absolutely believe that. No one ought to be in any doubt about that.

- Q33 **Mr Gray:** No, I am sure we all do. The final question on this question of transparency, though, speaking as a former special adviser—I never suffered from acne, actually—



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Lord West: I see I have made a mistake saying this, I have alienated a whole raft of—

Mr Gray: You're surrounded by the blighters.

In your experience, if there had been a news blackout on this particular story, would that have been from the MoD press office or the No. 10 press office, or from the special advisers? Who would have been responsible for putting the blackout on the story?

Lord West: There may well have been advice from the MoD. In the final analysis, because it is a deterrent, it would have been No. 10, but there may well have been advice from the MoD saying, "We prefer not to do this because there was a minor malfunction of the missile." I do not know exactly what the Americans might have said. There are so many issues there. In the final analysis, No. 10 should be absolutely up with the deterrent, and if that is not happening then there is something wrong with No. 10. They have got to understand that this is fundamental to the security of our nation.

Q34 **Chair:** Thank you. Just for the avoidance of doubt, the worst thing that could conceivably have happened on this particular occasion—if we are going to use the word "catastrophic failure"—would have been that one missile would have been totally defunct, as it were, and non-functional. That is the worst thing that could have happened and the best thing that could have happened would have been that it was some problem with the signalling and there was nothing really wrong with the missile. But for the avoidance of doubt, can we believe the reports in the press that this particular pool of missiles has been tested more than 160 times successfully?

Lord West: Absolutely. There were all the initial firings, of course, to make sure the system—when you are building up the system—and then American and British submarines since then have been firing them regularly. There are more American submarines than ours, so there is a regular firing, like this DASO firing on the range, to check that go. There is an absolute assurance there.

Chair: Admiral West, thank you very much for your evidence today.

Examination of witness

Witness: Professor Michael Clarke.

Q35 **Chair:** Professor Clarke, welcome. Our time is rather limited, so I will just ask you to say a brief word about yourself and your knowledge of and involvement in the subject under discussion today.

Professor Clarke: I have been a defence academic for 30-odd years and have always taken an interest in the British nuclear deterrent. In relation

to this particular issue, *The Sunday Times* called me on Friday as the story was developing and I spoke to them about it. I did not hear *The Sunday Times's* version of it until Saturday morning and saw quite a lot of the material and then I was asked to write a quick commentary about it, which I did in *The Sunday Times* for Sunday.

Chair: And we should make the point for the record that you are one of the external specialist advisers to this Committee.

Professor Clarke: Yes, I am.

Q36 **Chair:** Thank you.

From the information that was in the media, seeing as that is the only source we can refer to at the moment, but also from what limited information we got from the Secretary of State's answers in the House yesterday, what, in your view, may have happened with this missile test?

Professor Clarke: I think *The Sunday Times* team, in this case, did a very good job. I am not always complimentary about their reporting, but in this case they cross-checked a range of sources and I think they got the story right, which was that Vengeance, probably on 21 or 22 June, went through its DASO process, fired its missile successfully and that that missile malfunctioned in some way.

What *The Sunday Times* had information on on Saturday, but did not run with on Sunday because they couldn't stand it up, is something that seems to have been confirmed since—which American sources only now reported in the American press and on CNN—that the missile “had to be diverted into the ocean to self-destruct”. This suggests it may have been heading for land if it had to be diverted into the ocean, if that statement is technically correct. That is consistent with what *The Sunday Times* had information on but could not then confirm, that the missile may have been heading in towards Florida. So it suggests, if that is true, that there was a fairly major telemetry failure: that the missile may not just have been uncertain in its flight, but may have genuinely been going on the wrong track. That, I stress, is only confirmed by other journalistic sources so far.

Q37 **Mr Gray:** Telemetry means measurement of—what is telemetry?

Professor Clarke: It is inertial navigation, in essence.

Q38 **Mr Gray:** I see, so it is not just the measurement, it is the actual navigation.

Professor Clarke: Exactly, so that the missile can set up its own co-ordinates so that it knows where it is going.

Q39 **Mr Gray:** Some failures might be more significant than others. What you describe probably is a reasonably minor failure, or might it have been more than that, or don't we know?

Professor Clarke: Some sort of failure in the guidance system seems now to be reasonably certain, but it is absolutely true that in other respects this missile seems to have performed normally. As Admiral West



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said, Lockheed Martin, which makes the Trident II D5 missile, are right in saying that there have been 161 successful tests. This was the 162nd test, so there have been 161 successful tests since 1989. Now, there were five failures before 1989, when the missile was in a bigger testing phase, so, in total, there have been six failed tests: five of them before 1989, and one of them since then, which is the 162nd test.

- Q40 **Douglas Chapman:** What do you think are the implications of this particular failure? You previously said that this part was regarded as the most reliable of the whole missile system. It has failed, so what's your take on that?

Professor Clarke: The question that this raises is because—again, as Admiral West said—the Trident missiles that the UK uses are taken from a common stock, this may have been a genuinely one-off, hard-to-anticipate technical failure, but it may mean that both the United States and the United Kingdom will want to be reassured that Lockheed Martin are not in any way letting their own standards slip. Certainly, I think Lockheed Martin are embarrassed about this and there has been a certain amount of reported, journalistically reported, pressure from the United States on the British Government not to say too much about this, because clearly it must worry the Americans as well. One failure out of 162 is very small, but the fact that it has never failed before may raise questions about the adequacy of the checking and the manufacturer.

- Q41 **Mr Spellar:** That leads on to my question. When one is undertaking capability enhancement, is there a risk that that can lead to new challenges in testing and evaluating missile systems, and might that have happened in this case?

Professor Clarke: There has been some speculation that the reason this might have been a failed test is possibly that the missile was being tested at the very edge of its capabilities: there might have been some new element in the guidance system. Personally, I find that harder to believe given that the normal VIP process and the DASO process surrounded it. If this missile was being tested in a more challenging way than normal, I suspect it might have been a bit more discreet than it was. Everything else about this test followed the previous practice.

The one part of the system that, in theory, does not need to be upgraded is the Trident II D5 missile. Whereas the warheads are an upgraded design, the submarines are an upgraded design, the third element of the system—the warheads—are the most tested and, until now, have been 100% reliable since 1989.

Mr Spellar: You mean the missile, I think; you said the warhead.

Professor Clarke: Yes, the Trident missile.

- Q42 **Jack Lopresti:** Professor Clarke, in your comment piece in *The Sunday Times*, you raised the risk from threats from unmanned underwater vehicles. How credible is that? What are the timeframes? How significant is that now?



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Professor Clarke: At the moment it is not a technically credible threat. There has been great progress in UUVs—unmanned underwater vehicles: these robot submarines—and the fear is that hundreds or thousands of robot submarines could be deployed in the oceans to track something as big as a nuclear missile-carrying submarine, an SSBN. At the moment, the technical problems of robotics give all the advantages to a submarine, and the sheer scale and depth of the ocean, the fact that the ocean throws up lots of clutter from the seabed, plus everything else that is going on in the ocean—thermoclines, fish, turbulence from other vehicles—mean that it would be very difficult for a fleet of robots to detect a nuclear missile submarine.

The fear, of course, is that these submarines are going to be in service until 2050 or 2060 and we can only guess at what the advances in technology might be in that time. Of course, advances in technology may help the submarines as well as the robots.

Q43 **Jack Lopresti:** Are you talking about decades before the risk becomes tangible?

Professor Clarke: Yes. At the moment, it is a plausible, theoretical threat that is not expected to become realistic for at least 10 or more years.

Q44 **Chair:** I remember Admiral West saying in the past that every time we bring in a new generation of missile-carrying submarines there are stories in the media that the seas are going to be made transparent by the time that they come to the end of their lives. Isn't it also the case that counter-measures will no doubt be developed to create all sorts of false images of submarines in the sea, which would equally thwart the attempts to locate the real submarines?

Professor Clarke: That is entirely plausible. Technology may work for either side. It is often said that anti-submarine warfare has been on the verge of a breakthrough since 1915 and it never quite happens. There is always the possibility that a step change in technologies may tilt the balance against the SSBNs but so far there is no evidence that that is a realistic proposition for the foreseeable future.

Douglas Chapman: Does the recent test firing show that the UK can conduct this kind of missile test or should they conduct them more often?

Chair: Douglas, could we go straight to the final question? I feel we have covered that.

Q45 **Douglas Chapman:** Sorry. You suggest that the failure is an indication of a wider problem across the whole supporting infrastructure of the nuclear deterrent. Is that a matter for more investment or are there wider issues that Government need to address and consider?

Professor Clarke: I make the point that we conduct relatively few tests because they are expensive, and we are really testing the boats. The Americans conduct about five tests a year and we conducted five tests in 16 years because of the way in which we structure our forces.



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If we are to maintain the absolute credibility of the deterrent—I take what Admiral West says about the stability of the system as a technical system—I have long argued that we should test more often. Partly we don't because it is expensive, partly because we are really testing the submarines and the DASO process more than we are testing the missiles, because we rely on American tests to give us reassurance about the missiles.

It is also part of a deeper issue about the infrastructure of the extended life of the boats themselves, into 2030; what is happening up at Faslane and at the weapons storage facilities raises some cause for concern. There is a lot of anecdotal evidence that some of the individuals who are involved in Faslane and Coulport and the boats themselves certainly tell journalists stories that are a bit disturbing, that the system is beginning to creak and, in a way, is suffering from planners' blight. Because we are now looking at the new generation of boats, we are probably spending less than we should on the maintenance of the present fleet.

- Q46 **Chair:** Finally, I would ask whether you think anything we have discussed in our two sessions today has in any way undermined the secrecy or security of Britain's nuclear deterrent. Can you think of any good reason why a similar discussion could not have been held on the Floor of the House of Commons yesterday?

Professor Clarke: No, absolutely not, Chairman. There is an old rule in politics, which you will know very well, that it is not the failure that does the damage, it is the cover-up or perception of cover-up. In this case, I agree with Admiral West that this whole issue is not in any way undermining the deterrent. It may be doing damage to the Government because it has not been handled particularly well.

Chair: I don't think we can improve on that. Thank you very much for stepping in at short notice and being so concise and significantly revealing in the value of your answers.