The Defence Committee

The Defence Committee is appointed by the House of Commons to examine the expenditure, administration, and policy of the Ministry of Defence and its associated public bodies.

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Powers

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Publications

The Reports and evidence of the Committee are published by The Stationery Office by Order of the House. All publications of the Committee (including press notices) are on the Internet at www.parliament.uk/defcom.

Committee staff

The current staff of the Committee are Philippa Helme (Clerk), Eliot Wilson (Second Clerk), Ian Rogers (Audit Adviser), Stephen Jones (Committee Specialist), Adrian Jenner (Inquiry Manager), Richard Dawson (Committee Assistant), Sheryl Dinsdale (Secretary) and Stewart McIlvenna (Senior Office Clerk).

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Ann Hillier
The Revd Christopher Aldridge
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Nigel Barnacle
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Sheila Q Dwyer
Dan Youmans
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Maisie Carter
Sandra Leslie
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Anna Grace Lidstone
Christian Socialist Movement
Teresa Mitchell
Ulla Grant
Liz Fyfe
Derek Williams and Carol Williams
Nuclear Free Local Authorities (NFLA) Steering Committee
The Baptist Union of Great Britain, the Methodist Church and the United Reformed Church
Social Justice Committee of Penarth and District Cytun (Churches Together)
Church of Scotland, Church and Society Council
Rachel Putz
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Oral evidence

Taken before the Defence Committee
on Tuesday 16 January 2007

Members present:

Mr James Arbuthnot, in the Chair

Mr David S Borrow
Mr David Crausby
Linda Gilroy
Mr Mike Hancock
Mr Dai Havard
Mr Adam Holloway

Mr Bernard Jenkin
Mr Brian Jenkins
Mr Kevan Jones
Robert Key
Willie Rennie
John Smith

Witnesses: Ms Sian Jones, Aldermaston Women’s Peace Campaign, Mr Bruce Kent, Campaign for Nuclear Disarmament, Ms Di McDonald, Executive Director, Nuclear Information Service, and Mr John Ainslie, Co-ordinator, Scottish Campaign for Nuclear Disarmament, gave evidence.

Q1 Chairman: Good morning. Could I begin by welcoming you to this evidence session. It is about the future of the UK strategic nuclear deterrent and it is focusing on the White Paper. Welcome to our witnesses as well as to those in the public gallery. This is the third inquiry in our series of inquiries into the future of the deterrent. I should emphasise that this is a parliamentary inquiry; it is not a government consultation exercise on the White Paper. We intend to publish our findings before the House of Commons discusses and votes on the White Paper in March or whenever that happens. I will ask you individually to introduce yourselves and then we will come on to some substantive questions about the White Paper. Mr Ainslie, would you like to begin.

Mr Ainslie: I am employed as the Co-ordinator of the Scottish Campaign for Nuclear Disarmament. In that capacity I have done quite a lot of research work into British nuclear weapons systems, particularly Trident. I have a bit of an academic background from a long time ago in that area.

Ms McDonald: I work for the Nuclear Information Service, which gathers information and shares it particularly about Aldermaston and the nuclear warhead convoys.

Mr Kent: I am Bruce Kent. I have been secretary of the Campaign for Nuclear Disarmament (in the 1980s) and then chair. I have been associated with that for a long time. I am also much engaged as a vice-president with the Catholic peace movement Pax Christi, and I am an active member of the United Nations Association.

Ms Jones: I am Sian Jones. I am a member of Aldermaston Women’s Peace Campaign. We are based around a peace camp that meets outside the fence of AWE Aldermaston once a month, from where we observe what is going on at AWE Aldermaston and protest against it.

Q2 Chairman: Thank you. This is a rather egocentric beginning but a question which I asked when the White Paper was first announced in the House of Commons was related to the fact that this appeared to be a decision that was to be made not about Trident missiles, which would remain roughly the same, but about the platform on which those Trident missiles were deployed. Would you care to comment about that?

Mr Ainslie: I was looking at the 1980 decision and the way that was done and the relationship between the announcement in Parliament and the exchange of letters. In a sense, the exchange of letters between Tony Blair and George Bush three days after the decision was announced may be an interesting area. The key thing that was in that exchange that participation in the missile life extension programme. That is one of the key things that is driving the time scale, in a sense. I am not certain that is right, but it is a possible explanation as to why it has been done at this point.

Q3 Chairman: Most of the focus, would you not agree, of the Government’s White Paper is aimed at the building of submarines and the expense of submarines and whether it is worthwhile doing that and not at that life extension programme.

Ms McDonald: I was looking at the 1980 decision and the way that was done and the relationship between the announcement in Parliament and the exchange of letters. In a sense, the exchange of letters between Tony Blair and George Bush three days after the decision was announced may be an interesting area. The key thing that was in that exchange of letters was participation in the missile life extension programme. That is one of the key things that is driving the time scale, in a sense. I am not certain that is right, but it is a possible explanation as to why it has been done at this point.

Q4 Chairman: Thank you. Do any of the rest of you have any comments about it?

Ms Jones: The focus of the White Paper is very much on the delivery platform and tends to be less specific on the missiles and presumably less specific on the warheads. Chapter 7 suggests that a decision on the exact nature of the warhead will be made “in the next Parliament” and the evidence that we will present in written form to the Committee and have in the past suggests, in effect, that the building work at Aldermaston is evidence that to a certain extent very much of that decision has actually been
made, so we would suggest that the White Paper is not transparent about decisions that are being made at this very time about the warhead itself.

Q5 Chairman: Ms McDonald, you would agree.
Ms McDonald: Yes.

Q6 Mr Hancock: As somebody who watches Aldermaston, when they gave evidence here they told us that the buildings there, many of which are now nearly 50 years old, needed major works carried out on them. A lot of the work going on at Aldermaston was not about the future of another form of warhead but was simply to enable the maintenance to continue of the existing warhead programme and because many of the buildings there were now in such a bad state that they had to spend substantial sums of money on them. Do you share that view? If you are there already, you must have contact with people there. The union representative who represents the people there bore witness to that fact and did not dissent from that line at all. I am interested that you think the contrary to that.
Ms Jones: It is true that a large number of buildings have been demolished and that there are buildings being refurbished. Some 59 buildings have been demolished across the whole site at Aldermaston since, say, 2003. It is about keeping the place up to standards which comply with NII and Health and Safety Standards—which we know there were questions raised about. But the majority of the work, in terms of capital investment in the number of contracts issued and in the scale of the work itself, has been taking place, for example, on the Orion laser facility, and the construction of various other buildings, on which previous committees will have heard evidence from John Ainslie, from Greenpeace and from various other organisations, are all integral to the design, development and construction of a new system. So the two things are happening: bringing it up to current standards but also a considerable amount of investment, and we detailed that in our previous submission. I was at Aldermaston this weekend. The laser building is now rising to about four metres and additional pieces of infrastructure were being delivered over the weekend. They are working very hard there at the moment on the laser building.
Mr Ainslie: There may be a parallel position with the 1970s, when there was a lot of concern about safety. A report was drawn up which said there were various safety issues at Aldermaston which resulted in a construction programme. That was also parallel to the decision to build Trident. They have a history of operating for decades with facilities that were really not very safe. It seems that, when they are thinking of a new system, that is the time when they rebuild everything.

Q7 Mr Jones: All conspiracy theories have a kernel of truth in them but one of the issues that was put by both the unions and management when they came before us was not just what Mr Hancock said in terms of buildings but was in terms of the age profile of the workforce: that it was getting old. Ms Jones, you say that you think the decision has already been taken but they were saying that if we wanted to take that decision in the future we would not have the personnel there if that investment did not take place now. What do you say to those arguments?
Ms Jones: With due respect, the evidence that we present is not alleging that there is a conspiracy theory, we are just giving information.

Q8 Mr Jones: You are, because you are saying that the decision has already been taken.
Ms Jones: I am going to read something out that would suggest that but I am not presenting a conspiracy theory. We are just presenting you with information that is available in the public domain and asking you to add that up. We have discovered that when AWEMl took over the contract in April 2000, Dr John Rae, the chief executive, as part of the preparation to working at Aldermaston, met with the local Liaison Committee, which consists of representatives of trade unions, various other organisations and local persons. I am quoting from the minutes of a meeting of March 2000. In 2000 the Government’s position was: “Having decided to make the UK deterrent smaller, the MoD expects a lower cost. Therefore the funding from MoD will come down to a level which allows the programme to be delivered. As a rough guide, there will be a one-third reduction in staff, and funding will be reduced on a similar basis.” The situation by the time the site development strategy plan was published in July 2002 and made public in August 2002, was very different. That is the time that coincides with the extension of AWEMl’s contract to 25 years which was announced in early 2003. That would suggest that sometime in that two-year period a decision was made to have substantial investment in Aldermaston.

Q9 Mr Jones: I do not disagree with that. That is fact but the point that both the unions and management were making was that, if we were to take the decision in future to have the open debate about whether we should have a new generation of warheads, you could not do that without investment in not only, as Mr Hancock has said, the buildings, for safety reasons, but also in personnel, on the basis that the average age of the workforce there was getting near to the retirement age. That investment is needed, if in the future we are going to take the open debate rather than get a situation whereby we could not extend the life or have a new generation because we would not have the people there to do it.
Ms Jones: Yes, but I would suggest that there is a difference between maintaining the scientific, intellectual and other capacity to be able to develop nuclear weapons and a decision that we will develop nuclear weapons.

Q10 Mr Jones: That has not been taken yet but I am saying that if you do not have the scientists and the people with the intellectual know-how to do it
Ms Jones: I think we are probably going to be at not have the people there if they have all retired. You do not have the people there if they have all retired. 

Mr Jones: That is a bit of selective quoting, I think.

Q11 Chairman: Do you agree that the decision in 2000 to reduce the number of workers that you referred to is not, of itself, incompatible with the need to change the age profile that the Government has talked about in recent months?

Ms Jones: Yes.

Q12 Chairman: Thank you. Mr Kent?

Mr Kent: I would just like to say that the reason I am silent about this is I would like an opportunity to challenge some of the fundamental assumptions.

Q13 Chairman: Yes, you will get the opportunity. We do not worry about witnesses being silent because they will usually get opportunities later during the course of the evidence session. Let us give it to you now. I will give each of you the opportunity to do this, but perhaps we could start with you, Mr Kent. I wonder if you could briefly summarise your reaction to the White Paper, please.

Mr Kent: I think it is very disappointing. I do not think it faces the threats that this country and the world face in the next century in any evaluative way. It assumes things which it fails to prove. It constantly talks about deterrents: who is being deterred, how they are being deterred and with what they are being deterred. It slips in somewhere the old reference to “nuclear first-use” which is not nuclear deterrence, it is nuclear war fighting but that has just sort of slipped through without comment. It uses terms like “recognised” in a praiseworthy or commendable sense: “we are a recognised nuclear power”. That is a sleight of hand because we are only recognised in the sense that when the NPT was signed there were five countries with nuclear weapons. It was simply a matter of fact. It was stated. It gave no approval to those. In fact it required those to negotiate in good faith to get rid of them. So there are a number of problems and there is also a complete misrepresentation. I am not a lawyer and I believe you will be seeing lawyers but there is a complete misrepresentation about what the International Court of Justice said about nuclear weapons. It said that in only one particular circumstance they could not make up their minds: in the extreme circumstances of self-defence in which the very survival of the state would be at stake. Only in those circumstances were they unable to make up their minds. Everything else, they said, including the survival of the state, had to conform to humanitarian law, but here in the White Paper there is a statement that the ICJ had rejected the idea that nuclear weapons had been illegal. It did not reject. It did not make a decision on that point. That is really rather important. Most of all, I think it is the insurance argument and the sense that somehow Britain just sits and watches—says Blair: “in the absence of an agreement to disarm multilaterally”. It is our obligation to promote such activities and we are not doing that. The bit of the ICJ that was not quoted in the White Paper is the second section in 96: “There exists an obligation to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all its aspects under strict and effective international control.” In good faith. We do not believe that to continue with British nuclear weapons, while not negotiating, can possibly be construed as being in good faith. We think there are other much more important threats to our security than the remote possibility that somehow sufficiently irrational to use nuclear weapons but sufficiently rational to be deterred by our possession of them might at some stage appear on the future world map affecting us. In the context of a world of nine countries with, there are 182 countries that do not have nuclear weapons, which are not living in terror and fear that they are about to be attacked by somebody. I think we should listen to Dr Blix and listen to Kofi Annan. For us to pursue nuclear security is a green light to other countries to take the same road. I hope that was brief enough. Thank you for giving me the chance to speak.

Q15 Chairman: It was a great pleasure. Ms McDonald.

Ms McDonald: Right from the beginning I find the White Paper confusing. I think the title should be “The Future of Nuclear Weapons in the United Kingdom”. I cannot cope with this idea of the words “deterrence” and “weapon” being interchangeable because they are not. Deterrence is not a weapon, it is an unproven theory. It is a past doctrine that has many elements. I think it is essentially flawed and to keep promoting it as an idea—170 times the word “deterrence” is used in the White Paper—is to confuse people and to make assumptions that cannot really be made. A useful analogy perhaps might be capital punishment. We used to have capital punishment as a deterrent, as I understand it—and shall I say that it was before my time—but when it was abolished there was not a rush of murders on the street. It had been theory, its time had come and it was abandoned as a way of running our affairs. And so it is the same with this idea about nuclear weapons. It cannot be proved that they are a deterrent. We do not expect
that we would have been attacked if we did not have them. There is no proof that we would have been. The other thing in the White Paper concerns the offer, it seems, to reduce nuclear weapons from the current number of about 200 or below 200 to 160. I do not see that that is any offer at all because the number of warheads going into Aldermaston, coming back from Scotland for servicing, and the number of warheads being serviced and going back to Scotland do not match. I think it is about 120 warheads have come back from Scotland since 2000 over a six-year period, and in the same period 88 warheads have gone up. These figures obviously are not guesses; they are estimates on evidence that is taken by and not very coherent in terms of how it is presenting its arguments. One key issue is the whole question of the extent to which these are weapons under NATO, independent or—which I think is what it is really about—bilateral Anglo-American use. There are references to NATO but not put very strongly. In the exchange of letters, Bush’s letter only refers to it being assigned to NATO. Tony Blair’s letter has the standard proviso: in extreme circumstances used in defence of our own vital interests. If this is about NATO, then it should be saying what NATO’s nuclear policy is. NATO nuclear policy has always been rather incoherent because it is perched between different views either side of the Atlantic. It is particularly problematical at the moment. It is not really saying, “Here is what NATO believes and here is how we fit into this” which Rifkind’s statement in 1993 did start with. That is about the last policy document we have. When Malcolm Rifkind was speaking in November 1993 he did start off with saying, “NATO has this view and here is how we fit in with it.” This does not do that. My own feeling, basically, is that NATO use has a fundamental problem, because you need agreement in the consultation process. That agreement, in most circumstances, is unlikely to be there, so the allies are unlikely to agree in the NATO consultation process to authorise nuclear use. I have real problems with any concept in independence, partly in trying to see how they work politically, but the other side is that I have done a lot of work on the software and the software is a critical vulnerability. The operational independence is potentially undermined by reliance on the American software. That is not to say that it definitely is, but it potentially is. If use under NATO is not very likely and independent use is not very likely, where you can see this system working is in a bilateral Anglo-American operation. Then it will work quite well. But this is not saying that and it is not presenting the case for that.

Q17 Chairman: Sian Jones.
Ms Jones: My colleagues have made most of the remarks, so I will keep my comments very brief. It is very interesting that the White Paper was published before the Prime Minister announced that he wanted a further debate on whether we are a war-fighting or peace-keeping country because surely the possession and deployment of nuclear weapons is actually crucial to that debate as to what sort of country we are. The White Paper itself is really looking back to a time that we lived through and a time where we worked towards what is now enshrined in the 1997 INF Treaty, the ridding of US cruise missiles from British soil. It is that whole Cold War argument and the outmoded concept of deterrence that is repeatedly referred to throughout the White Paper. The security agenda has changed. There is some admission of that but there is a failure in the White Paper to explore the real security needs that are being increasingly defined by people from outside of the nuclear weapons countries. That is a security agenda which is based on the need for food, for shelter, for water, for the right to education, for the right to adequate hospital treatment, the sort of agenda that is coming from the peoples of the global south and the sort of agenda that is not even mentioned in the White Paper. We believe that the White Paper should have been extended to discuss what we mean by security without making a decision. The only other point I would make is that the possibility of other options really are dismissed within the White Paper itself. In particular, the option to not replace Trident is not even mentioned. On the point that was made about legality, I would just add that the White Paper continuously refers to the need for nuclear weapons to safeguard our vital interests. It does not once mention “to be used in self-defence”, which, as we have heard, is the only point on which the ICJ were unable to reach a unanimous decision as to whether the use of nuclear weapons would be unlawful. Therefore, this whole paper is without the commitment made by the UK to the NPT. Finally, on the question about warheads I would refer you to Tony Blair’s speech, that the apparent cut in the number of warheads is not really an example of the commitment to a peaceful, fairer and safer world, it is a matter of expediency. In Tony Blair’s speech he refers to it as a measure of efficiency.

Q18 Chairman: Thank you. Mr Kent, do you want to add something?
Mr Kent: I would like to add to what I previously said. First of all, technically there is nothing in the document which raises the question that submarines might become vulnerable within the next 40 years. I do not think it is at all inconceivable that the seabed will be sufficiently monitored to know where people are. That is a possibility. Secondly, there is nothing in the document that really would inspire anybody to think treaties have the slightest effect in getting rid of weapons. We have a bacteriological convention; we have a chemical convention. They are not perfect at all. They need to be hardened up in all sorts of ways. There is no reference to the fact that there is a draft treaty on the table at the UN, lodged by Costa Rica, with an enormous amount of technical expertise in it which covers inspection, verification, criminality, satellite observation and all the things that will be required. None of that is there at all. It is just: “We are here in this world. There is no disarmament—too bad—so we are going to have Trident.” I think that is a pretty weak sort of way of dealing with such a serious issue.

Q19 Linda Gilroy: I would like to follow through on a couple of points from the statements that have been made. First of all, to Mr Ainslie. The statement you made about the software, you have also made in one of the papers you have submitted to us, that reliance on American software for all aspects of targeting undermines nuclear independence. Can you tell us a bit more about what your research has shown and the sort of questions you think we ought to be putting to the industry people and academics when we question them about that?

Mr Ainslie: There are two sides of the software system. There is the shore-based bit of the software and the submarine end. At the submarine end it is clearly entirely American. At the shore-based end some of the key components come from the United States. In some of the American contracts is an insight into the process. The Americans produce software models for their own Trident system. Those models include information which is classified to such a level that it cannot be given to outside of the summary or outside of the chain of command in the United Kingdom. I am a little surprised, to say the least, that you believe there is evidence—not just the possibility but the evidence—to suggest that is a possibility. We were given a cast-iron assurance. It was the only thing that determined whether or not we had an independent deterrent.

Mr Hancock: We were assured that the guidance and targeting mechanisms were wholly British and were unstoppable if a British Prime Minister gave authorisation for their use—their independent use. When the questions were put to the panel on that day, a number of members seriously questioned whether that was an accurate interpretation. The answer came back that, irrefutably, there was no possibility whatsoever, once the command to fire a missile from a British submarine was given, that firing could in any way be impeded by a source outside of the summary or outside of the chain of command in the United Kingdom. I am a little surprised, to say the least, that you believe there is evidence—just the possibility but the evidence—to suggest that is a possibility. We were given a cast-iron assurance. It was the only thing that determined whether or not we had an independent deterrent.

Chairman: I think you said there was not evidence that it was possible but that it was a potential.

Q24 Mr Hancock: We were told it was not possible. That is different from potential. When somebody says, sitting where you are, that it is impossible to do that, then we have to either prove them wrong by saying this is how it can be done or we have to accept that. I am thinking that there is a real difference between possible and potential.

Mr Ainslie: If I could explain in terms of he authorisation process. In terms of a decision being made by the Prime Minister, all the way down to some form of instruction reaching a missile technician in front of his computer, I would quite happily believe that is an entirely British process that cannot be interfered with. Through the missile technician or electronically or however it goes, once
the authorisation message goes into the fire control system computer, it is then running. There is no doubt about this: there is no end of contracts. The fire control system software is purchased from the United States and the shore-end stuff that processes the target data is also reliant on American computer models. I have no doubt about that at all. Whether there is the potential for them to change it is a more complex issue. I have no doubt about that at all.

Q25 Linda Gilroy: I am interested in whether you think built into the ownership and operation of the software by the United Kingdom is the capacity in short order to interfere in a short space of time, rather than years, with the ability of the Prime Minister to issue an order to fire a missile and for that to happen.

Mr Ainslie: There are ways of doing it. One is in terms of the difference between a Co-ordinated plan or a uniquely British plan. The second, certainly in terms of the Russian scenario, is dependent on 12-hourly weather data from the United States and whether that 12-hourly weather data could be used as an on/off switch. In order to get the accuracy, they have to have the weather over the target area and that is transmitted every 12 hours from America.

Q26 Mr Jones: Do you have any evidence that this is the case? I am a very simple soul myself: I tend to go on facts and things put in front of me rather than suppositions. You say you have a paper. In that, is there some evidence?

Mr Ainslie: It is a vulnerability. The thing that flagged this up to me was the Audit Office report in 1998. The UK should have the ability to produce targeting and effectiveness software. They were having difficulties doing that. I basically have been told from America, from the analysts, that the British expertise was negligible. The official MoD line is: “No, we have sorted those problems and brought in contractors.” It was being flagged up at line is: “No, we have sorted those problems and British expertise was negligible. The o...
submission does not come from transparency and openness by our Government; it comes from a process with the American Freedom of Information Act that allows people to find out what is going on at Los Alamos, Livermore, Sandia and the other laboratories with which Aldermaston works.

Mr Jones: Will you give any credit to the Government, who are going to have a vote for the first time on this in Parliament?

Mr Jenkin: That is not quite correct. There was a vote in 1982.

Q32 Mr Jones: Is it not a major step forward? The supposition is that Parliament is going to vote for this. What happens if we vote against it? If you are to give politicians options or people options to do something, surely you have to do the preparation beforehand—which is what is happening at Aldermaston.

Mr Kent: It is an advance on 1947, undoubtedly, where the decision was taken secretly and announced about two years later. It is an advance but it is still not what is needed in a democracy.

Q33 Mr Jones: In the Bruce Kent world, what would be the perfect way of dealing with this?

Mr Kent: I think to open some of the issues which are simply missing in the paper: to discuss the things that we are all concerned about—and not just us but Greenpeace, Friends of the Earth and the rest of them—on the threats that face our planet. That discussion is not being conducted. The assumption is: deterrence works, full stop, and we do not have to do anything else except rely on it.

Q34 Mr Hancock: The Prime Minister, probably going back in his own short memory to the time when he supported the campaign you were leading, said that he fully accepted that people had a different view from the one he now holds about this issue, but he also stated quite clearly in the White Paper that those who hold that view and who question the decision, need to explain why disarmament in itself by the UK would help our security. I think that is a question he would pose to all of us who would believe that replacement of the submarines is not in the best defence interests of the country. I would be interested to know your views on that. The Prime Minister invited us to give our views and today we are giving you the opportunity.

Mr Kent: If I may speak on this, I think disarmament by ourselves alone would put us into the position of Sweden or New Zealand or other countries who are not at immediate threat of some awful enemy with nuclear weapons. Disarmament on its own would be a positive step, but it is not disarmament on its own we are calling for. We are calling for multilateral negotiations aimed at the elimination of nuclear weapons from the world surface and that requires a completely different kind of political and security structure and an awful lot of new thinking which is completely absent. Mr Blair has changed his mind; many people have.

That is up to them. They have to face the issues of today and to answer the kind of questions we are asking.

Q35 Mr Hancock: Does your response to my question not beg the question: Over how long would you say that process takes? In the meantime, do you secure your own security by maintaining what you have until the climate is right for multilateral disarmament?

Mr Kent: First of all, there is no process. Despite the fact that there is a clear legal obligation, the 2005 NPT review conference ended in complete failure. The 2000 conference produced some sensible proposals which have not been operated on. There are no meetings in the Geneva Committee on disarmament. There is no proposal anywhere. Despite Blix’s call for a world summit on nuclear disarmament, no response from this Government. I cannot say there is an indefinite long process because the process has not started. It could be quite quick, like a landmines treaty, if the wanted to make it quick, but we have not wanted to make it quick. The assumption behind your question is that nuclear weapons do defend us or else we would want to have them. There is the chance of serious negotiations with other countries that might start to take a different road, including, of course, the existing nuclear powers. It is not a tomorrow security but it is a process that has to begin.

Q36 Mr Hancock: The Prime Minister’s question, Mr Kent, was quite specific. He said in the foreword in the White Paper: “Those who question this decision need to explain why disarmament by the UK would help our security.” By that, he means the argument over yes or no to the replacement of his submarines. It is not about global disarmament; he is talking about the United Kingdom. That is the question that a lot of people out there would like to have answered.

Mr Kent: We do not believe it gives us security, it is an illusion of security, but to decide not to replace Trident helps our security because, if we signal up that in 20 years we will not have them, there is the chance of serious negotiations with other countries that might start to take a different road, including, of course, the existing nuclear powers. It is not a tomorrow security but it is a process that has to begin.

Q37 Chairman: Would any of you like to add anything to that.

Ms McDonald: Yes, we would be safer to give up nuclear weapons because we would then not be a potential threat for starting a nuclear war. That is what other countries see Britain as, and that would be something to undo if we are serious about building a world that meets everyone’s real security needs.

Q38 Mr Hancock: Do you seriously believe, Ms McDonald, that there are countries which believe the United Kingdom would start a nuclear war?

Ms McDonald: We do not have a policy of no first-use, so we must be prepared to start one.
**Q39 Mr Crausby:** The CND’s alternative White Paper: Safer Britain, Safer World effectively argues that there is no current nuclear threat faced by the United Kingdom. In fact it opens up with the fact that the most pressing threat currently in the UK is that of international terrorism. The Government’s White Paper tries to counter that in the sense that it says some companies might seek in future to sponsor nuclear terrorism from their soil. It goes on to say, “We can only deter such threats through the continued possession of nuclear weapons.” It effectively says that conventional capabilities cannot have the same deterrent effect. How do you answer that argument, that there really is a terrorist-linked nuclear threat that can only be countered by a nuclear deterrent of our own?

**Mr Kent:** I think they are scratching around to try to find a way of justifying the threat of nuclear weapons against a territorial entity. Since they clearly cannot do that against the terrorists, they try to find a state that is harbouring terrorists to do that to. Not many terrorists are going to have a flag up in a state saying, “We are now harbouring X country or Y country” so it is a bit tenuous as a reason. Why we cannot deal with countries that are supporting terrorism, let alone nuclear, in other ways that are non nuclear, I do not know. Economic, political, even military pressure or conventional military pressure are all ways in which we can deal with such states.

**Q40 Mr Crausby:** You go on in your White Paper to say that the money could be spent on conventional defence. Do you really take that position? To be fair, you mention that it should be spent on other things as well, but does CND take the view that there is a real alternative on conventional defence and that this £70-odd million that you calculate should be spent on conventional defence?

**Mr Kent:** CND is a broad church. It includes pacifists and it includes people who are highly just war and ex military. There is an air commodore member of CND who would certainly take the position that we should be spending more money on conventional military defence. There would be Quaker members of CND who would say, “No, not at all.” It is a wide open field, really, in that respect. It is certainly not excluded.

**Q41 Mr Crausby:** I accept there are different views, but I am asking for yours. What do the witnesses feel about that? Do they see that as a real argument, that the money should be spent on conventional defence or is it a throwaway remark?

**Mr Kent:** My own view is that I am a citizen of a country which believes in military defence and I feel I have to conform to the situation we are in and I would not want to see young British troops, or old British troops, being sent anywhere not properly equipped. That is my position, even though I do not believe in warfare and I believe we should be looking for non violent solutions to problems. In the interim, the people who are engaged in this sort of thing on our behalf should be properly protected. That is my position and I am sure many within CND would agree with it.

**Q42 Mr Crausby:** What about other witnesses, do they believe that the money would be better spent on conventional defence?

**Mr Kent:** Then they would have no argument with my air commodore. I cannot nail down everybody in CND to a particular point of view on this. There are different views.

**Mr Ainslie:** Representing the Scottish CND, it is the same. There is a range of views and they would keep that in as an option. Personally, I am a conscientious objector, so I am not in favour of military expenditure. But that is a personal view. I am just stating what my personal position is.

**Q43 Mr Crausby:** I was trying to establish whether that is a serious argument, that we should not spend the money on a replacement for the Trident platform but we should spend the money and replace that by conventional defence. Or is it just a command that is inserted in the alternative White Paper to strengthen the argument. Does anybody think that we should not spend the money on a Trident replacement but spend all of the money or part of the money on conventional defence?

**Mr Kent:** Some people in the country certainly think that.

**Q44 Mr Crausby:** Do any of the witnesses believe that?

**Ms Jones:** That is the sort of discussion that we would have if we were to have a meaningful debate—as suggested by Tony Blair, I do not know how meaningful that debate would be—about whether we want to be a war-fighting or a peace-keeping country and then that would be integral to it. It would be one of the issues that was discussed. It is not really being put forward to us as an option and the Government have not put it forward as an option in the White Paper. It is something that could be discussed, whatever our personal or political situation is on the use of armed force. It is something that should be discussed and people should be given the opportunity to make decisions about that with all the information available to them about what the amounts of money would buy in terms of nuclear defence, conventional defence or other things that we might think it would be more worthwhile to spend that money on.

**Q45 Mr Crausby:** It is reasonable to argue for a debate, but, as leading members of the peace movement, how would you plead that debate? Would you argue that the money should be spent on conventional defence rather than on nuclear defence or would you simply argue that we should not spend the money?

**Ms Jones:** I personally would argue that that money would be invested in working out how we can resolve conflict internationally without drawing
on recourse to violence, £76 billion worth of investment on how to keep the peace would be a wonderful way to spend that money.

Q46 Mr Crausby: That is a perfectly reasonable position. I just want to know whether members of the peace movement are arguing not to spend the money on nuclear but to spend the money on conventional, or whether they are arguing in general not to spend the money on either nuclear or conventional.

Mr Kent: I am just saying to you that there are differences of opinion. Some would be for spending it on conventional weapons, some would be for spending it on non-violent security measures. I think we are entitled to have a difference of opinion on the expenditure.

Q47 Mr Crausby: I am asking these witnesses. Do any of these witnesses believe that this money, as opposed to being spent on the Trident replacement, should be spent on conventional defence?

Mr Kent: Certainly there are. I mentioned an air commodore—and I am not going to give his name. There are a number of people in CND who would certainly take that position, and in the wider peace movement. CND is not the only part of the peace movement. There are Generals for Peace—God knows, there are all sorts of different organisations included under the “peace movement”.

Ms Jones: I think we need a far more rigorous analysis of what our security needs are and then to develop strategies that are appropriate to addressing the particular security needs of the United Kingdom but also the more general security needs of the community of which we are a part.

Q48 Mr Hancock: Surely the White Paper and the Prime Minister's statement have attempted to divorce the two issues. It is not even the latest debate that is initiated. The deterrent is taken out of that debate. You would agree with that.

Ms Jones: It is extremely surprising that you can talk about Trident without actually talking about it in the context of security more generally. It seems really strange that there should be two separate discussions going on about whether we want nuclear weapons and whether we want to be war-fighting or peace-keeping. For me, they are all part of the same thing.

Mr Hancock: We are a war-fighting country and the debate, I am sure, will end up coming to that conclusion. But there is also this debate about whether or not a nuclear deterrent in fact secures you from a nuclear attack. The Prime Minister is of the opinion that that is still a legitimate threat to the United Kingdom.

Chairman: I would like to move on to Robert Key on that issue.

Q49 Robert Key: Could I reassure Sian Jones that all of the members of this Committee have for many years been looking at all aspects of security. I was a member of the Defence Committee ten years ago that produced a report on the southern flank of NATO when we were saying that issues such as economic migration, the use of water, of food, and security issues were integral to the security of our nation. I think it is wrong of you, if I may say so, to assume that we are only interested in nuclear, but this inquiry is into a very particular, very narrow aspect of our defence. Could I broaden the questioning now to inquire of your views on the insurance policy aspect here, that the nuclear deterrent is seen as an insurance policy as part of our defence system. Do you think that maintaining a deterrent is in fact a useful insurance policy?

Mr Kent: I think it is an insurance policy that ensures greater danger for this country because you do not take out an insurance policy against house subsidence that contributes to the subsidence of your house. It would be a bit peculiar if you did. I think possessing and continuing nuclear weapons into the middle of this century is a recipe for further danger and threat from other countries who take the same position about us, about security. I think it is not an insurance policy that is valid.

Q50 Robert Key: Who is going to change their aggressive stance towards us and the international community if we do not renew Trident? Will Al-Qaeda be impressed and change their ways if we do not replace Trident?

Ms McDonald: I do have the view that nuclear weapons are irrelevant to terrorists. The nuclear weapons based in the UK are the easiest target and pose the real risk of terrorist attack involving nuclear weapons. That should be eliminated as a risk if we are serious about the security of citizens in the UK. On the question of the insurance policy, I agree with what Bruce says, that it is a simile that falls as soon as you look at it, but there is an insurance policy that we could take up—that we are already signed up to and other countries are too—and that is the non-proliferation treaty. But of course it only works if you read the small print and comply with it. That is what we need to be doing.

Q51 Robert Key: Which of course the Government says it is. I do not think there is any question that the Government says the non-proliferation treaty is extremely important and they are moving towards that. But you contest that.

Ms McDonald: I do.

Mr Kent: You must ask the Government where they are doing their negotiating.

Q52 Robert Key: What do you think public opinion says about their insurance policy argument? I think most people would say that the British public believes there is value in having a nuclear deterrent. Do you think the British public is wrong?

Mr Kent: Yes. I think public opinion is in two minds. If you put to public opinion, as we have done: “Should you spend £75 billion or £25 billion and not spend it on the Post Office or National Health or whatever?” then overwhelmingly they say...
we should spend it on social needs. If you say: “Should we be the only country to get rid of nuclear weapons while others still have them and therefore be under threat?” then, indeed, public opinion will go in the other direction. But public opinion has to rely on what it gets in terms of information. When you get documents like this, which assume 110% the validity of nuclear deterrence, the public are going to believe it, and I do not believe it to be true.

Q53 Robert Key: Chairman, for 30 years Bruce Kent and I have been arguing about these things. I am afraid I still think of you as a parish priest in Camden. When I was fighting Frank Dobson for his seat there in the 1979 elections, we used to meet in your parish church kitchen, I recall, from time to time.

Mr Kent: I was of great political advantage to you, really! I assisted you in your career.

Q54 Robert Key: Thank you very much. I believe you did, sir. But I still think of you, if I may say so, as a parish priest, as a Christian, and I am very interested in this Christian point of view and I think it is very important. I would like to ask you this: I think I am right in saying that Pax Christi takes the view that nuclear weapons are morally and theologically wrong and it is a very simple issue, therefore, if you take that on board. I, of course, as a member of the Church of England, have a rather more difficult problem because the Archbishop of Canterbury says, “Yes, they are wrong” but on Thought for the Day on the Today programme the other day the Bishop of Liverpool said that the genie cannot be put back in the bottle and we have to live in the real world and we have nuclear weapons. Who is right? The Archbishop of Canterbury or the Bishop of Liverpool? Can you help me?

Mr Kent: Yes, I commend you to the Pope. It is time you raised your sights! He said at the beginning of this year that nuclear weapons were fallacious and nuclear policies were baneful, and that is the strongest position from any Christian leader so far. John can say the entire Scotch hierarchy and the Church of Scotland are totally opposed to it, many Church of England bishops are opposed to it. I am sure you will be able to convert the Bishop of Liverpool in due course.

Mr Ainslie: Certainly the Church of Scotland’s position is very strong on this. That is a moral and theologically wrong. In addition, Cardinal O’Brien, the leader of the Scottish Catholic Church, his line, in slogan terms, is to replace Trident with projects that bring lives to the poor.

Q55 Robert Key: That is an aspiration to which I am sure we all live up. Can I pursue the Scottish dimension to this? In your evidence to the Committee the Scottish Campaign for Nuclear Disarmament made very interesting points about the Scottish dimension and pointed out that the Scottish National Party and Liberal Democrats in the Scottish Parliament were opposed to the replacement and that the Labour Party in the Scottish Parliament only won a motion by five votes, but, right at the end, you said this: “The plan to replace Trident and keep nuclear weapons in Scotland for 50 years will not improve the relationship between Edinburgh and London. It is likely to be a growing point of contention”, and, today of all days, commemorating the Act of Union, is an important point, I think, to pursue this for a little bit. It seems to me quite extraordinary that we are about, apparently, to have a Scottish Prime Minister, we have a United Kingdom Government with Scottish members of Parliament in extremely powerful positions in the Cabinet—John Reid, Alistair Darling, Douglas Alexander and, indeed, others. Why do not the Scottish people trust Scottish MPs and a Scottish Prime Minister on this issue?

Mr Ainslie: The opinion polls show quite clearly that there is a stronger opposition to nuclear weapons in Scotland than south of the border by about 10%, so the anti-nuclear feeling is basically stronger. There is simply a difference between the two political processes, I think, between Westminster and the Scottish Parliament. The Scottish Parliament is more varied and there you are going to work with coalitions.

Q56 Robert Key: That is not my question at all. You are side-stepping it. The question is: why do not the Scottish electorate who would put Gordon Brown in the position of being the Prime Minister of the United Kingdom trust him and his judgment and the judgment of his fellow Scots elected MPs when it comes to this decision?

Mr Ainslie: An anonymous survey of all the Scottish MPs by the BBC found that 30 out of the 59 were saying that they were definitely opposed.

Q57 Robert Key: This is the Westminster MPs? Mr Ainslie: The majority of the Westminster MPs. I am not totally convinced whether that will materialise when it come to the vote.

Q58 Robert Key: It would not be enough to change the mind of the Government, would it?

Mr Ainslie: No, but I think what is a real prospect is that the Scottish Parliament, at some point in the future, in the longer term, is going to turn around and say, “No, we are opposed to this.” The current position is that the Scottish Parliament may have not have much power and is looking at ways it might do something about it, but is that then making life more difficult? I am sure Jack McConnell would far rather he did not have this situation and being put in the position of forcing one of his ministers to resign over this issue.

Chairman: I think we had better move on. I am relieved we have got off the theological basis for violence and nuclear weapons and everything. Let us move on. David Crausby.

Q59 Mr Crausby: Thank you, Chairman. Proliferation for me is the more serious threat, on the face of it. Given that countries like Iran and
North Korea at least appear to be interested in developing nuclear weapons, some people would argue that this is completely the wrong time for us to reduce our commitment to nuclear defence. How would you respond to that?

Mr Kent: It is exactly the right time to start getting those countries round the table. How can we possibly lecture those countries about acquiring nuclear weapons while we are in the process of saying that we think they are essential for our security. I think it is exactly the right time to begin international negotiations involving those countries, because at the moment they are extremely cynical about our performance.

Q60 Mr Crausby: Do you really think that it would have any impact on Iran and North Korea whether we abandoned or not. Quite a small proportion of the world has nuclear weapons, and I should imagine that Iran and North Korea very much see that America is the major threat from their point of view, and they may well be justified in that. Do you really believe that our decision to abandon nuclear weapons would have any impact at all on their decisions?

Mr Kent: I repeat, our decision, I think, should be in the context of calling for global nuclear abolition negotiations. If someone like Henry Kissinger, not exactly a dove, starts saying now is the time to begin this, I think we should start listening and sitting up and taking notice. It is not just us, we should be promoting this globally while we are saying that in 20 years’ time we will not have them.

Q61 Mr Crausby: Do other witnesses want to comment on that? It is quite an important issue, this beginning of non-proliferation.

Mr Ainslie: The way to deal with this proliferation problem is internationally via the global community. It is not Britain alone trying to say how we deal with this; we want to be doing what we can to strengthen the international moves. At the end of the day, the fundamental question is: why do people not use nuclear weapons? You make this argument about it being a deterrent, but I think the main reason people do not use nuclear weapons in any sort of military sense is because there is a taboo against their use, it is generally considered not to be the done thing to do, and the important thing is to strengthen the extent to which it is unacceptable for any country to use nuclear weapons. That global general consensus and feeling we want to make stronger, and us using the arguments that are in the White Paper is undermining that.

Ms Jones: I would concur with what both Bruce and John have said about this being an opportunity for us to take a different road, and I would refer you to the International Crisis Group’s summary of threats to the world that was published in December. They noted that the UK, in publishing the White Paper and in failing as a nuclear weapons state to take the opportunity to take a lead on disarmament at this particular time, was one of the things that they counted as a threat to world security. I would also add a very tangential remark. When we protest at Aldermaston we send press releases to local press and to news feeds, and we have this thing called Google Search which sends us little ticks when we appear in various publications, and it is very interesting, the number of publications in Iran which seem to be interested in the fact that people are demonstrating outside Aldermaston against the development of new nuclear weapons. This may be propaganda, I do not know what these newspapers are, but it is not that these people are unaware of the potential for developments here and it is time to start extending out, opening up and saying that there are people here who are questioning the need for new weapons, as there are in countries throughout world, and there is a significant block within the non-nuclear weapons states who have been trying to push for some meaningful process to come out of the NPT.

Q62 Chairman: Ms McDonald.

Ms McDonald: Firstly, I think that the British Government is responsible for what Britain does. You mention what threats other countries may pose, such as the United States' stockpile of nuclear weapons. We are not responsible for those, so I do not think we can speak to that, but what we are responsible for is trying to influence our own Government, as you are, and it seems to me that nuclear disarmament is the only action that will remove the justification for countries to waste billions of their money, even if they can develop, produce and maintain such weapons. So, that is our responsibility and that is what we need to remove, the justification from the British point of view.

Q63 Mr Crausby: I want to know what effect this would have on governments, not the good people of Iran. I accept that the good people of Iran, just as the good people of this country, would be happy to see the elimination of nuclear weapons without the threat. Anyone right-minded would want to see a non-nuclear world, but what effect would our decision to abandon Trident have on the Government of Iran and, indeed, those countries sitting there waiting in the wings to see whether there is going to be any real proliferation?

Mr Kent: It entirely depends on what goes with that decision. We would perhaps invite a delegation from Iran to come and talk with us about non-nuclear progress on both sides. I think it would be very helpful. It is not just a question of us saying “No”, it is a question of the political context into which it fits. Nobody expected a Landmines Treaty to come about, but it did come about. You say everyone wants a nuclear-free world. I am afraid that is really, up until quite recently, not true. A large number of people in America and this country believe absolutely implicitly that nuclear weapons for ever and ever are the answer to our security, and now that is changing. So a nuclear-free world is not something that everyone has been about in different ways.
Q64 Mr Crausby: I think I said “all right-minded people would want a nuclear-free world”?

Mr Kent: Thank you. All right.

Q65 Linda Gilroy: It sounds to me very much as if Bruce Kent is taking a multilateral approach towards disarmament. Is that how you would characterise the statement you have just made?

Mr Kent: Absolutely. I think it is a wonderful opportunity to point out that in 1978 this country and the world at large, in the first special session, called on all countries to proceed to disarmament unilaterally, bilaterally, regionally and multilaterally, and that has been the CND’s position from the beginning. Nevertheless, it has been polarised by the media into, “CND are only unilateral and you are only multilateral”—“you” being anybody who is opposed to the CND—and that is nonsense.

Q66 Linda Gilroy: Can I pursue that a little further in terms of how long you would see this process taking. You have said we could say to people that we will not renew our deterrent in 20 years’ time, but if I can just take you back to the opening statement, or proposition, which the Chairman put where we are really talking about a submarine platform. I am sure you have read the evidence we took in our last inquiry and we have a very short window of time, according to the evidence we took and accepted, in terms of maintaining our ability to produce a submarine that will carry the deterrent. If you accept that, then surely you also would have to accept that we would have to make a unilateral commitment to disarmament, because we would, in the course of the process you have just described, almost certainly lose our ability to produce the platform.

Mr Kent: In terms of the timetable, the Mayor of Hiroshima’s campaign is based on the famous 2020, that it is going to take until that sort of time to bring a treaty, observable, monitored, effective, controlling fissile material, inspections and all the rest of it, so it is a long lead-time. You are pointing out that we have got a short time to make a decision. I do not know the technicalities, but I point out what I said in the beginning, that there is even a hint in this document that we could buy the submarines from somebody else.

Q67 Linda Gilroy: I do not think so. I think that is purely and simply saying that we may need to maintain the sovereign capability. There are only three countries in the world that can produce platforms, and I am sure we would not be buying them from Russia.

Mr Kent: No, but we could buy them from the United States, as we buy a lot of the other equipment from the United States. I think that we should not be pushed by the technicalities of our industrial base, as it were. There are other ways of nuclear deterrents, apart from a Trident equivalent submarine, if we wanted to continue.

Q68 Willie Rennie: I have sympathy with what you are saying about the negotiations because I think the Government has fallen short in terms of pushing for a new round of negotiations; but do you really think, with the reputation of George Bush and Tony Blair abroad just now and international relations, that this is the right time to start those negotiations? Do you really think that Iran and North Korea would come to the table and start negotiating?

Mr Kent: I do not think those two gentlemen are the right people to put forward as the pioneers of negotiation, and I think that it is an open field on both sides as to who might best do it. It is not your subject, but I was quite surprised that Gordon Brown hung his hat on the British independent deterrent post in the way that he did. He had an opportunity to wait a bit before doing something else. So, no, I do not think those two are very attractive, and they are not here forever, are they?

Q69 Willie Rennie: But they are the main players just now and you are talking about negotiations?

Mr Kent: One is going to go quite quickly, the other is going to go fairly quickly, so I think that it is a good opportunity.

Ms McDonald: I was going to add, this is exactly the problem that has been identified. There is a rush to make a decision whilst the present Prime Minister is in position, and so on, and yet there is the long timescale of building submarines, by which time George Bush will have gone, and so on. Some reasonable delay at this stage may clear the water for a safer world.

Q70 Chairman: I have a quick proposition. Would you agree that the decision by South Africa to abolish its nuclear weapons has had no observable impact on proliferation attempts by countries like North Korea?

Mr Ainslie: Basically, no. My understanding is that, having got rid of nuclear weapons, South Africa then played an important role in the subsequent rounds of the NPT Conference. The old South African regime could never have done that. At the end of the day, there is a primary focus for how nuclear proliferation is dealt with. I think the next one is 2010, and South Africa was able to play a more substantial role in that having made that decision.

Q71 Chairman: The ability of South Africa to play that role in those negotiations, though, does not seem to have had an observable impact on North Korea, does it?

Mr Ainslie: The 13 steps, which is what we are talking about, was the result of the NPT process—that was the 1995 thing—so it is a step forward. We then took a step back in the 2000 NPT Review Conference. That is the problem.
Q72 Chairman: Two thousand or 2005?
Mr Ainslie: Two thousand and five.

Q73 Chairman: Because I thought 2000 produced what for you would be the welcome news that the decision to get rid of nuclear weapons should be within a short timescale?
Mr Ainslie: I am sorry; I am getting the two dates mixed up.

Mr Kent: Two thousand was the 13 steps.

Q74 Chairman: Two thousand good, 2005 bad.
Mr Kent: Two thousand and five was a failure.

Q75 Mr Borrow: Perhaps I can move on to the issue of what disarmament has already taken place. Certainly since the end of the Cold War the number of warheads that the UK has stockpiled has been reduced by about 75% and, certainly if the further reduction anticipated in the White Paper goes ahead, that will be a 50% reduction in the ten years since 1997. Are those reductions welcomed by yourselves?

Mr Kent: Certainly they are welcomed, and, if they were pointing towards nuclear disarmament globally, even more welcome, but what we are talking about, is it not, is 48 warheads at sea at any one time, each one of which, potentially, is 10 times the size of the Hiroshima bomb? I think talking about the reduction of warheads is a kind of good housekeeping. There is no point spending fortunes on thousands of violent weapons when you can do it with 50 or five. Actually one, I think, if it could be deliverable, is a sufficient deterrent, if you believe in nuclear deterrents; so it is welcome, certainly.

Q76 Mr Borrow: Would you accept then that of the five major nuclear powers the stockpile in the UK is the least, with perhaps 1% of the world’s stockpile, and that, despite the reductions in the UK stockpile or since the end of the Cold War, those sorts of reductions have not been seen by the other four major powers and, therefore, there has not been, if you like, a multilateral response to reductions in nuclear weapons by the UK Government which could lead to a new round of further reductions if we are seeking a multilateral nuclear disarmament as the end result? Are you as disappointed as I am that my government over the last ten years has made reductions and got rid of one whole weapons system and yet other nuclear powers have made very little progress in that direction?

Ms McDonald: The thing is they will not have seen them as disarmament measures because they have not been disarmament measures, they have been measures to remove old weapons that have become obsolete and they have been measures of efficiency, measures of logistical arrangements that make sense in the military. There was never any stage that we reached the original 512 capability number of warheads for Trident because it was actually impossible in the way that Aldermaston is configured. So all the reductions that there have been so far have been for logistical reasons, and I do not think they have been identified by informed observers in other countries, and certainly by NukeWatch, as being disarmament. We do have to look for real disarmament measures because it has got to come with the language of disarmament. We have not used the language, we are not in negotiations, we are not working for disarmament. For politicians it is language than counts, and that is where there is a huge gap.

Q77 Mr Borrow: Are you saying, in fact, that reducing the number of warheads does not lead to multilateral disarmament and non-proliferation and that the only thing that the UK can do to assist the process of getting rid of nuclear weapons in the world is to unilaterally get rid of these nuclear weapons and then Trident: that there is no way in which the UK can reduce the number of weapons whilst still retaining nuclear weapons but reduce them to a minimum amount in the hope of getting a positive response from other nuclear powers and potential nuclear powers? Are you saying there is no halfway house? We either stick with what we have got, which is a minimum amount of nuclear weapons, or we get rid of them and there may be a response? Is that the position that you take?

Mr Kent: I am saying that “minimum” is a completely confusing word. What does “minimum” mean with nuclear weapons? I think getting rid of nuclear weapons and making steps towards negotiation is the way forward. It is not insignificant that Britain has cut down; it is highly significant if it is pointing in that direction.

Q78 Mr Hancock: They are not significant, are they, to take your point, because if Britain has a nuclear submarine which has 16 silos, only one ship at sea, one boat at sea at any one time, the maximum number of missiles available to be fired would be 16 plus how many warheads? A maximum of four per missile. You have got 48 missiles actively. To service its need, Britain would need barely 100. Would you agree with that statement?

Mr Kent: I did not get the end of it. I agree with your numbers of warheads.

Q79 Mr Hancock: You would have one ship at sea with 16 silos, with a maximum of 48 warheads, sixteen missiles, four per missile. I am sorry, 64 on board. So you would have a situation where you would only need 128 warheads maximum anyway.

Mr Kent: Yes.

Q80 Mr Hancock: So the numbers are irrelevant really, it is the way you deliver them that is the issue, and we are not taking that down?

Mr Ainslie: If I could answer you on what disarmament has taken place or will take place, I think numbers is only one measure. The MoD will assess the effectiveness and the performance and, if they are doing an effectiveness assessment, the system that we have today is a lot more capable than what we had in the early 1990s, without a
doubt, in terms of the numbers of targets and accuracy, and so on, and that capability increase is continuing to move forward. They upgraded the system in 2002 to make it more flexible. They are going to upgrade it again. Apart from this thing, in a couple of years’ time they are replacing the computer system, so that will make it more flexible again, and so there are at least qualitative improvements without the change in quantity.

**Mr Borrow:** I need to pursue this issue in terms of whether a nuclear power that reduces the number of warheads or gets rid of a system whilst still retaining a nuclear power is a positive move and a move towards disarmament.

**Q81 Chairman:** Do you think it is a positive move?

**Mr Kent:** It can be. It depends if the actual aim is nuclear disarmament or the aim is good housekeeping and a so-called on-going minimum deterrent.

**Q82 Mr Borrow:** So if the French got rid of one of their systems, would that be a positive move in your view?

**Mr Kent:** It would be, in terms of saving money they could spend on something else, but I would not be praising the French unless they are heading towards the goal of nuclear disarmament. The Chinese should get some praise out of all this, they are the least aggressive in terms of numbers of warheads and delivery systems, but they do not get figured very much in the disarmament process, but I am saying, “Yes”, to your question.

**Q83 Chairman:** Might that be because they are building more submarines than the whole of the rest of the world put together?

**Mr Kent:** It could well be.

**Q84 John Smith:** We do not know, incidentally, whether the Chinese are continuing to develop their capability. They have always been considered a regional nuclear threat and not a strategic nuclear threat. Just on the argument about reducing stockpiles, do our witnesses accept that we have not just reduced warheads, we have also reduced capability. We have removed platforms in the last eight years, we have removed the airborne capability. So it is not just how many angels on the—

**Mr Ainslie:** There is a point in Di’s argument of being logistical changes. I think in one sense the big disarmament decision was probably the scrapping of the Tactical Air to Surface Missile (TASM). The W177 had to go anyway because it was getting very old, so the decision was for that to go simply because they could not keep it going any longer, but they had made this decision a few years earlier to scrap the Tactical Air to Surface Missile. Why did they make that decision? The Americans scrapped them. It was their project. It was not an option. They looked at the possibility of doing a joint project with the French and they could not do it. It is very difficult to say are these logistical decisions or are they disarmament decisions. It is a step forward. The arms control approach is part of it. You bring the numbers down. It is what has happened between America and Russia. It is better to have lower numbers.

**Chairman:** Let us move on to the deterrent options, solutions and costs and whether we should have aircraft with cruise missiles, surface ships, land-based systems, submarines. Adam Holloway.

**Q85 Mr Holloway:** Mr Kent, I appreciate you are frightfully opposed to nuclear weapons full-stop, but you did say that there are other ways other than subs. Of the other options, have you any comments to make?

**Mr Kent:** Of deterring countries?

**Q86 Mr Holloway:** No, the other options, the other platforms, so land, air, ship based systems.

**Mr Kent:** They have aircraft or cruise missiles on submarines. These are all options that are possible, I presume, though I do not claim to be an expert, and I have not come here to be an expert, on the different systems. Perhaps my colleagues know more about the other systems.

**Mr Ainslie:** I will maybe make two points. There is a problem in the paper. Section 3 gives you three scenarios: a re-emerging major nuclear power, an emerging nuclear state and state sponsored terrorism. I think there is a disconnect between that and the principles that they then require. The scale and the invulnerability only apply to Russia and, if you translate that into options, there is a sense in which Trident is particularly inappropriate for anything other than Russia. It is worth watching what is happening in America at the moment. General Cartwright, Head of Strategic Command, is very keen that he has Trident missiles with conventional warheads on them. Congress has been hesitant about this because they are by no means convinced that firing any type of missile anywhere is immediately perceived by Russia as an attack on them and the whole system goes off, and so there is quite a strong argument for saying that, if you are concerned about these other things, Trident is not the way to do it. The second point is an option that the Committee raised—strictly it is not a CND line, but it is worth pursuing. I think—which is, yes, have submarines but take them off patrol. Why are we fixated with this thing of keeping them on patrol? They are allocated to NATO. NATO sub-strategic nuclear forces. In other words, the bombs sitting in Germany and other places, are on a state of alert measured in months. NATO has no standing nuclear plans. Why does this part of the NATO force have to be on a state of alert measured in days while the other parts of the NATO force are on a state of alert measured in months? I think it is almost the core of this mentality—“This is the way we have always done it”—and they cannot bring themselves to take it off patrol. If you take Trident off patrol, your whole urgency and everything else goes. However long it takes them to build a submarine, you can add another five or ten years into the process if you do not have them on patrol.
Q87 Chairman: Would you then comment on the Government’s point that the continuous-at-sea-deterrent notion reduces the risk of increasing tension when you actually decide to send a submarine to sea?

Mr Ainslie: These are arguments that they are basically picking up from America. They are used in a Russian/American context, in terms of the balance between Russia and America: if America were to do this, Russia would do that. Does it really apply between Britain and Russia that this is what would happen? I find it scarcely credible that that whole scenario would happen. It basically increases the risk. Having the thing out at sea on patrol is perceived as being a potential risk. If you bring it into port, and particularly if you bring it into port and then separate the components and the other side can then see those components are not put together, you are then sending out a very clear message: “We are not threatening you.” There is a slight thing about: is there a risk involved in this escalation, but the beneficial effect of not presenting that threat, you know, does that then mean the Russians can have a few fewer missiles? However dramatic that reduction is, you are removing a few targets out of their target plan.

Q88 Linda Gilroy: I am a bit confused and I would just like to go back and ask a question that I asked just now. This White Paper is predominantly about the need to take a decision in relation to maintaining the platform and the skills base that will otherwise, it is claimed, no longer be there to build the platform unless we make a decision in very short order. Is not the argument you have just put forward one that you could certainly go on and have, but unless we do take that decision, we will not have any options to maintain the deterrent of a future platform to carry the deterrent at all, and so you have taken a unilateral decision?

Mr Ainslie: I am certainly not convinced by those arguments. We are saying at the moment it is lock, stock and barrel about North Korea and Japan. The general thing is that Japan could get into the nuclear weapons business very quickly if it wanted to, and then we seem to take a very different line when it comes to Britain, that if we do not build a new submarine now we will never ever be able to have a nuclear weapons capability again.

Q89 Linda Gilroy: That is related to the cost of doing so and of reconstituting the base with which to do it. You obviously do not accept those arguments. Have you done any analysis of it?

Mr Ainslie: In terms of the skills base side?

Q90 Linda Gilroy: Yes, of the arguments which have been put fairly forcefully and clearly within particularly the last evidence inquiry that we did on maintaining the skills base?

Mr Ainslie: Not particularly. I think the only other point is the extent to which we depend on the Americans anyway. We go to the Americans for some critical skills anyway, and so, if there was that problem further down the line, it may just be an issue of how far we go to the Americans for help.

Chairman: Moving on to the costs, if we may, Willie Rennie.

Q91 Willie Rennie: You mentioned the cost of £76 billion. The White Paper states between 15 and 20 billion. What is the reason for the difference?

Mr Ainslie: I think there is a major problem with the White Paper in terms of trying to sell this. It does not give the full figures. Not only does it not give the full figures, I have been involved in helping to draft some of the PQs and they are not giving the replies back to questions to fill in some of the gaps that appear. So, clearly, they are not giving the total cost of the whole thing. The big gap is really the cost of Aldermaston. They are saying Aldermaston costs this amount at particular points. There is no figure there for the total Aldermaston development plan, which is there as a plan probably from now until the early 2020s. The other thing is when they are talking about this 5 to 6% in service costs, is that an average? I am sure there was a question down saying, “What is the average operating cost?” and we did not get an answer to it. That figure is two billion a year. So if you have a current expenditure of two billion a year, you are saying that when the new system is in service it is around two billion a year. During the period 2012-2024 it will be higher. They are saying Aldermaston is going to be up. You have got the major costs of the submarine platform coming in there, so you have got a minimum level of two billion a year, probably more than that. Over a 50-year period, that is 100 billion.

Mr Kent: With a question mark over decommissioning.

Mr Ainslie: Then you have to say, if there is 100 billion, how much of that is for the existing system and how much of that is for the new one? Clearly they are saying Aldermaston is for both, so how do you divide it up? By just very roughly saying maybe 25 going into the existing system and the other 75 going into the new one?

Q92 Willie Rennie: What do you think the Government have included? How have they come up with the 15 to 20 billion figure?

Mr Ainslie: That is including the submarine and a couple of other components, and it includes the cost of building the new warheads, or refurbishing the warheads, but not the cost of the infrastructure.

Q93 Willie Rennie: Okay. Ms Jones: If you start to look at the costs, this was something that was actually quite difficult when we began to look at the White Paper and, looking very specifically at the estimates based around the refurbishment or replacement of the warheads, you get a figure in section 5.11 which says two to three billion, but it is not actually clear how that two to three billion would differ if the decision was refurbishment or replacement. So, there is a lack of accuracy there. Also, it is not clear whether that is
not only in addition to the current operating costs of Aldermaston but also the programme of investment in sustaining capabilities at Aldermaston that was announced in 2005 ostensibly as a one-off thing over three years. It is very clear, if you look at the White Paper, that there will be further year on year on investment, and they quote it as the equivalent of about 3% of the current defence budget. In addition to that, we also have the £5.3 billion contract which AWEMl have to run Aldermaston on behalf of the Government. In addition to that we have ambiguity about whether it includes maintaining the current weapons stockpile, transporting the current warheads back and forth and, presumably at some point, decommissioning those warheads if new warheads are decided upon. So, as far as we can see from looking at the industry side of this (and I think we have only tangentially mentioned the big influence on maintaining both the capacity for building the submarines and maintaining the skills base at Aldermaston, which you mentioned earlier on), basically industry analysts have expected investment of around £12 billion over the next 12 years, so they obviously know something that we do not know from the White Paper, and, as has already been mentioned, we are not going to get any comprehensive figures until after the Comprehensive Spending Review. So, one of the things that we would encourage you to do when you speak to representatives of the Government or the companies concerned is actually to give you a much more detailed break-down of what these costs actually mean, over what period of time they will need to come on line and what the whole budgeting exercise for this is. Clearly, from section five we can see that they have gone for the cheapest option, but it would still be quite nice to see how they have done their sums.

Q94 Willie Rennie: Do you think that affordability alone is a basis for opposing the replacement of nuclear?
Ms Jones: It is irrelevant, is it not?

Q95 Willie Rennie: Why do you spend so much time on the costs?
Mr Ainslie: Clearly, from our point, if it cost nothing it would still be wrong. It is wrong to have weapons of mass destruction that kill thousands of people. When you look at world opinion and you look at the polls, it is a factor. There are obviously some people out there for which cost is a key issue, so it is a factor in the judgment.

Q96 Willie Rennie: Put yourself in the public shoes then. At what point would you think that the public would find it unacceptable or acceptable to have a deterrent? What cost would that figure be? I know you would not accept any cost, but at what point do you think the public would accept?
Mr Ainslie: Quinlan says that it is an insurance policy. What premium do you pay?

Q97 Willie Rennie: Would you take a stab at it?
Mr Kent: It has got to be a lot less than at the moment. We can keep the post offices going for 125 years on the money spent, and these are figures that people understand, and we can deal with global warming, plus, plus, with these figures. I do not know what the lowest figure would be that would stop disquiet, but it would have to be very much lower than this.

Q98 Linda Gilroy: Do you think it would be reasonable, before working out what else it might be spent on, to consider the costs of three things in particular: one would be the decommissioning costs, the second, and you might take a different view from others, but I am sure people would wish to consider having a look at the programme of maintaining nuclear powered submarines not carrying nuclear weapons, and there would be a cost to maintain the skills base for that purpose; and, in addition to that, you would have to look at the impact on the local economies, particularly, if not in the fast-lane most certainly in Barrow in Cumbria, an area where I would hazard a guess that it would be very substantial, and in Plymouth, where it would have a devastating effect on the local economy, not just in the city of Plymouth but on the neighbouring objective-one area where about a third of the dockyard workers are coming from in Cornwall. If you are going to start saying this is an amount that we can spend on post offices and health, the simple question I am asking you is would you agree that it would be reasonable to factor in all of those significant costs?
Mr Kent: Absolutely. Decommissioning we are into anyway, are we not, because we already have the submarines. We are going to decommission them sooner or later, so that is not an extra expense.

Q99 Linda Gilroy: It would be a very substantial extra expense, I would suggest, to decommission the entire strategic facility at Davenport dockyard. It is not the same thing to talk about the decommissioning of the submarines.
Mr Kent: Granted, but surely part of the process of moving to nuclear disarmament is actually looking at the present workforce and how they can be used and deployed, and that is one of the factors that is lacking. You could actually see a detailed CND brief for Barrow called Oceans at Work some time ago in 1985. I think it was the first study that anybody had presented.
Ms McDonald: I am sure you will correct me, Ms Gilroy, but, as I understand it, the numbers of jobs involved in refitting Trident is in the region of 300. Other submarine work goes on there, and, as you know, a great deal of it now is to do with decommissioning and laid up submarines. When DML were here giving evidence I heard their managing director say they were already working with the NDA in terms of looking for contracts for decommissioning, so I think there will be plenty of work in Devonport for a long time. On the question of Barrow, it is a different matter. I think that if this £76 billion, or whatever, could be saved, then
certainly putting money into Barrow in terms of investment for new jobs, because certainly the Cumbrian isolation and the need for jobs there is very clear, people need support there. I do not think they should be confined and constricted for ever to be building nuclear submarines, there should be something else there for them, and that is government business.

Q100 Chairman: Let us move on. I think you agree that that sort of cost should be factored in but it is not something you would say would lead to a deficit. It could be beneficial.

Mr Kent: Yes.

Chairman: I want to move on to the legalities of it. By the way, we did promise Kate Hudson she could have the opportunity to talk about international treaty obligations and legalities. So that is why we are getting into this now, and it is going to be our final area of questioning.

Q101 Mr Jenkin: The burden of legal opinion against the replacement of Trident—and I use that shorthand expression whether it has been replaced or not—is first that the possession of nuclear weapons is intrinsically illegal because obviously possession conveys an intent that the host nation is prepared to use them; and, secondly, possession of nuclear weapons or the replacement of Trident represents a failure to disarm which is in breach of the Nuclear Proliferation Treaty. Do you agree with that?

Mr Kent: Failure to negotiate in good faith. It really does not qualify any individual country to disarm per se but it calls upon them to negotiate in good faith, and that is what the ICJ held up in 1996.

Q102 Mr Jenkin: Returning to the question of possession and preparedness to use, what is the legal basis or legal authority on which your opinion rests?

Mr Kent: The International Court of Justice 1996, to which the only exception was that they could not make up their minds about the issue of use where the actual survival of a state is in question, the only exception that was allowed at that time. They did not exactly say that, did they? I am quoting from the judgment: “In view of the current state of international law and of the elements of fact at its disposal, the Court cannot conclude definitively whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self-defence which is the basis of the survival of the state”?

Mr Kent: That is just what I have been quoting. That is the one exception.

Q103 Mr Jenkin: They did not exactly say that, did they? I am quoting from the judgment: “In view of the current state of international law and of the elements of fact at its disposal, the Court cannot conclude definitively whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self-defence which is the basis of the survival of the state”?

Q104 Mr Jenkin: Exactly. You said they would be illegal, but that is not correct, is it?

Mr Kent: I said “with the one exception that Court ruled”, and that is the one exception that you have just read out. They could not make up their minds.

Q105 Mr Jenkin: So, it is possible that the use of nuclear weapons would be legal under international law?

Mr Kent: It is possible or it is impossible, we do not really know. It is certainly not, as the White Paper said, allowed, or whatever the expression was.

Mr Ainslie: I think the other point is that, if you are accepting that ICJ judgment, it would be conceivable to see that in the White Paper it actually saying Britain is only going to use nuclear weapons in the extreme circumstance where the survival of the state is at risk. It does not. It uses this term “vital interest”, which is far broader.

Q106 Mr Jenkin: I think the term “vital” in respect of interests is an interesting one, and I think that is a grey area, but who would make that judgment at that particular time? It would have to be a state, would it not? It would have to be the Government. It could not be an international court.

Mr Ainslie: There is more in there in terms of when the ICJ was mulling this over. My recollection of it is really in this Cold War scenario where there are all these missiles coming in and there are mass casualties and the state could quickly be annihilated. It is not saying in that scenario it is okay, it is saying that in that scenario the judges between them could not reach a clear agreement, but that is quite different from vital interests where something is happening and it is in our vital interests to protect something.

Q107 Mr Jenkin: The point is that the judgment did not say that the use of nuclear weapons would be illegal, did it?

Mr Kent: In all circumstances, it did not.

Q108 Mr Jenkin: It did not say that. Thank you. Ms Jones: Can I just say that the only part where the ICJ could not reach a unanimous decision was—Anyway, counter to your argument, they could not decide amongst themselves, though there are dissenting opinions, but they could not be lawful except in the self-defence situation. Self-defence is not, as John has said, in the White Paper. I would refer you to the 1998 Strategic Defence Review and the subsequent December 2003 document where the words “vital interest” are played out and explained, and in no way does that equate with self-defence. So, we are looking at a situation where the only thing the ICJ gave us was use in self-defence, and that is not our claim to be able to use them.
Q109 Mr Jenkin: Except that I have looked at the Opinion to which the CND paper refers, and it does not refer to any of that. I have also looked at the Opinion prepared on behalf of Greenpeace by Philippe Sands, and it is interesting the caveats that are entered. It says, “The use or the threat of use of nuclear weapons in self-defence would be unlawful where it fails to meet the requirements of necessity and proportionality.” That is quite a strong caveat. It goes on, “We are of the view that the proportionality test is unlikely to be met.” It does not say it cannot be met. It goes on to say, “It is difficult to conceive of any circumstances.” It does not rule out circumstances. I think we have established, however, that the possession of nuclear weapons with the intent to use them under unspecified circumstances is actually legal.

Mr Kent: Very specified. The survival of the state is a specification.

Q110 Mr Jenkin: Even the legal opinions chosen by anti-nuclear organisations actually do not rule out the legal use of nuclear weapons?

Mr Kent: No, that is quite right.

Ms Jones: Can I follow up on that. What would have been interesting in the White Paper would be to see from the Government an answer to your question: under what circumstances would they feel that their decision to use nuclear weapons would pass those two fundamental tests of international humanitarian law which are applicable to all forms of war: necessity and proportionality? Those are the things that maybe you should ask the Government: where do they feel that it would have both necessity and proportionality were they to use nuclear weapons, and allow people to understand under what circumstances those decisions would be made. The last statement we had from the Government, although I understand his position is slightly different now, is Geoff Hoon saying he would have been willing to use them in a conflict situation in Iraq, and he said that in 2003.

Q111 Mr Jenkin: I have to confess that I was a little surprised by his utterance on that point.

Ms Jones: The question should be asked again.

Mr Jenkin: I would share your opinion that it would be useful for the Government to give us their legal opinion about their possession for potential use but without necessarily giving away the circumstances in which they might use them, because obviously that would undermine their effectiveness, as it has done.

Linda Gilroy: The Strategic Defence Review did, however, highlight the limitations placed on the use of British nuclear weapons, including the restrictions in place in the three nuclear-free zones around the world, and the Government did state some limitations: “We will not use nuclear weapons against a non-nuclear weapons state not in material breach of its nuclear non-proliferation obligations unless it attacks us, our allies, or a state to which we have a security commitment in association or alliance with a nuclear weapons state”, and that is where the Iran situation came in. That quote is often used selectively without also referring to that, and I am sure you have noticed that part of the Strategic Defence Review statement as well.

Chairman: Thank you. That puts that in context.

Q112 Mr Jenkin: Turning to the other main burden of your collective presentation, which is that the failure to disarm is somehow in breach of the nuclear proliferation treaty—and I correct myself because you did correct me, failure to negotiate in good faith—but where is your legal authority for arguing that somehow the Government is not negotiating in good faith even if we are replacing Trident?

Mr Kent: I think it is for you to tell me where the Government is negotiating nuclear abolition.

Q113 Mr Jenkin: We have already heard that the Government has substantially reduced its stocks and capabilities of nuclear weapons. In fact, the end of the Cold War resulted in just such a negotiation with the Soviet Union, a broad agreement.

Mr Kent: It is all perfectly explicable in terms of retaining a minimum nuclear deterrent; it is nothing to do with nuclear—

Q114 Mr Jenkin: Where does it say retaining a minimum nuclear deterrent is contrary to negotiating in good faith?

Mr Kent: Where is the negotiation in good faith? That is what I am asking. There is not any at the moment.

Ms McDonald: The negotiations we are looking for is to restart the conference on disarmament in Geneva. If that were going on, then I would understand your point, but I am not sure what you are referring to. There is no negotiation.

Q115 Mr Jenkin: I do not think this is an illegal question, I think it is fundamentally a political question. Let me put it to you. If the Government believed that unilaterally disarming our nuclear weapons was actually going to contribute to less security and more instability globally, that would be an irresponsible thing to do, would it not?

Mr Kent: The two issues are separate. I can conceive of people saying we should retain British nuclear weapons and even renew Trident, but we are obliged to negotiate the abolition of all nuclear weapons.

Q116 Mr Jenkin: But if the number of states possessing nuclear weapons is actually on the increase, it is quite respectable to argue that abandoning our own nuclear deterrent would actually contribute to global instability and a reduction in global security. It is an argument, is it not?

Mr Kent: Yes, it is an argument.

Q117 Mr Jenkin: So if that is a respectable argument, there is no legal basis for saying we have got to negotiate now, with a deadline, to get rid of our nuclear weapons, is there?
Mr Jenkin: The argument comes from quite a different source. The ICJ called on us to negotiate in good faith, and that is not going on. I am boring myself and, very probably, boring the Committee.

Mr Ainslie: I wonder if I can put it in a different way. The NPT arose in this climate when there was a lot of concern that lots of nations were going to get nuclear weapons, and it is a deal basically. The nations that did not have nuclear weapons said, “No, we are not trying to get them”, and the nations that did have nuclear weapons said, “We will try to make progress towards disarmament.” So there are two sides of that. Basically, if we are not keeping our side of the deal, if we are saying we are going to keep nuclear weapons for the next 50 years, then there is a sense in which the other side can say, “Hang on, why do you expect us to keep our part of the deal?”

Q118 Chairman: Mr Ainslie, is not that confusing the issue of negotiations with the issue of whether you are keeping nuclear weapons. Let us suppose that the Government is frightfully keen on negotiating on non-proliferation and the reduction of nuclear weapons but everybody else’s negotiation desk is closed, they are not interested in negotiations. Is the Government, because it is not negotiating with anybody because there is nobody else interested in negotiating, thereby in breach of the Non-Proliferation Treaty?

Mr Kent: I do not think so. It is for a lawyer to say, but I would think probably not in a situation where no other country wanted to negotiate, but until we have tried that out we are not in a position to say.

Q119 Chairman: If not, Mr Kent, then surely the answer to your question, “Where are these negotiations going on?” is that the Government is doing its best, it is ready and willing to negotiate, but it is not its fault if nobody else is taking it up. Mr Kent: It is a totally passive role, is it not. Active action is called for to start negotiations. The commitment to disarm in Geneva is in complete collapse.

Q120 Mr Hancock: If there was a definitive clause in the White Paper which said, “Under no circumstances would the United Kingdom use a nuclear weapon as a first strike device”, would any of you then suggest that it was right to maintain it as a deterrent? Is there any proof that we have breached any of the non-proliferation treaties that we have signed up for? I do not believe we have. We have not assisted any country in manufacturing a nuclear weapon. Thirdly, under what circumstances would it be conceivable, in your view, for Britain to retain a nuclear deterrent?

Mr Kent: In my view, I think the British nuclear deterrent is quite unacceptable, for all sorts of reasons. I do not think it gives us any security.

Q121 Mr Jenkin: So these legal arguments are completely irrelevant?

Mr Kent: No, they are highly relevant.

Q122 Mr Jenkin: But your position does not rest on the legal argument.

Mr Kent: We are talking about two things. One is British nuclear weapons and the other is the obligation to negotiate.

Q123 Mr Hancock: We have not breached any treaty, have we, because we have not assisted any country—unless you have evidence to the contrary—to develop a nuclear weapon of their own?

Ms McDonald: I think we have to look at how we collaborate with the United States over nuclear weapons, and that was done by undermining the commitments already made by both countries to the NPT, by setting up the Mutual Defence Agreement in 1958 to change that; so I think we have reneged on our commitment not to work with another government on nuclear weapons. The other thing about this is that it comes back to this idea of an insurance policy. An insurance policy must be recommended for all, everyone, not just for a few, and so to pursue that insurance analogy would be to accept that every country was entitled to have it. There are big problems by not giving the recognition and the weight that is due to the NPT and to the countries who have tried to maintain it, the countries who have set up the 13 steps, the whole NPT meetings that there have been over the last ten years. Being an initiator and supporter of disarmament negotiations, it seems to me, would give a very big signal to the rest of the world of Britain’s intentions, and those are the intentions we wish to foster. Of course it would take quite a long time to disarm the present nuclear system anyway, and taking them off patrol would be the first step. These things are all staged, but I would like to go back, since you ask questions about the law. The ICJ 1996 judgment came out of previous law, and I am not a lawyer, but the previous law, the Geneva Convention and all the other laws that they looked at to come to their conclusion, was to do with not threatening or killing non-combatants, and the whole point about nuclear weapons (perhaps we just take it for granted) but which needs to be said so many times in the public domain, is that it kills everybody and for a long time afterwards with the radiation effects as well and you would only need four to completely obliterates what is presently a ‘rogue state’. So it is a very dangerous game that is being played out, and it is getting more dangerous and, with the more complicated computer controls and the size of the chips getting smaller and smaller, the potential for mistake or accident, apart from all the other accidents, for example on the M6, with nuclear weapons outside Preston, people are very well aware if they know about it, but it is not common knowledge, and one of the things that the Government, and certainly this Committee, perhaps can help do is to educate the public more about what nuclear weapons mean.
Chairman: I am grateful to you because you have brought us back to the legality issue which I want to concentrate for the moment on through Bernard Jenkin, then Mr Ainslie. I will call on you, then John Smith, then Linda Gilroy. We were getting a little away from it.

Mr Jenkin: I want to make one last point. To quote from the Rabinder Singh and Professor Chinkin Opinion, which has been obtained for CND, paragraph 74: “Enhancing nuclear weapons systems, possibly without going through Parliamentary processes, is, in our view, not conducive to entering into negotiations for disarmament as required by the NPT Article 6 and evinces no intention to ‘bring to a conclusion negotiations leading to nuclear disarmament’ in all its aspects.” I would submit that that is a political opinion. That is not a legal opinion, that is a political judgment, and it is perfectly arguable for the Government to say that the best way of bringing to a conclusion disarmament negotiations is for us to maintain a minimum deterrent so that we have a chip on the table to negotiate with. The point is that this is not a legal question; it is a political question.

Q124 Chairman: Mr Ainslie, would you like to comment.

Mr Ainslie: The point I was going to make was to reinforce Dr’s thing about the legal and moral issues. The two are not separate; the legal thing is based on the same fundamental point. The ICJ Opinion includes Judge Weeramantry’s long dissenting Opinion. That is going through how different cultures, different religions are all pointing to the same conclusion that say the threat of the use of nuclear weapons is illegal. It is not just using the legal arguments, it is also using the moral arguments, and it is there in the ICJ Opinion itself.

Q125 Chairman: Except the ICJ Opinion does not actually say that upgrading a nuclear weapons system is in breach of the obligation to negotiate—

Mr Ainslie: When I am saying “Opinion”, the Opinion includes all the dissenting opinions.

Ms Jones: May I make a couple of remarks about this. One is that the NPT, although it is a treaty, is a very weak instrument, and, of course, it was politically constructed at a very specific time.

Q126 Chairman: As treaties tend to be.

Ms Jones: As treaties tend to be. It is also a treaty without a treaty body where states are under no obligation to report on their performance. Some of the questions that we have raised previously in this debate about can we show whether Britain has progressed towards negotiating good faith towards nuclear disarmament are not actually set against any standards to which all states are required to respond, both nuclear weapons and non-nuclear weapons; so maybe it would be a useful thing if we were to try and measure this progress that the UK is apparently making towards disarmament. The other thing is a mixture of politics and semantics. When you say “enhancing a nuclear weapon therefore cannot be seen as a violation of the treaty”, because the treaty is loosely worded and because we use words like “enhancement” or “replacement”, the image that is given here is of somebody who is just popping out to get a new car which has got the latest refinements in it, and that argument is so disingenuous. What we are going to have to do is to get rid of one nuclear weapons system and replace it with another. It is a new generation of nuclear weapons. Whatever the language they use, it will be able to do its job more efficiently, it will be better targeted, it will have a higher efficiency, it will be apparently safer, we understand, which seems to be a contradiction in terms of nuclear weapons. The net result is the same. We will have a “better” weapons system for the indiscriminate use against civilians, which is a fundamental prohibition under any form of international law. So we can use the semantics, we can use the arguments, but basically this needs testing in some legal form, and we know the only way of testing the legality of nuclear weapons would be post facto, and I certainly do not want to see an International Criminal Court addressing the issue of whether it was unlawful for us to use nuclear weapons because I think we might not be in a position to make reasoned and legal judgments, and so we have to look at the law in advance acknowledging the political context in which that law has been constructed.

Linda Gilroy: The whole tenor of the way in which we have been discussing this issue and the most recent debate about the legalities has been very pessimistic, perhaps understandably so given the pressure that the NTP is under, but I wonder if at this stage in our proceedings you would want to express any positive views towards what the Non-Proliferation Treaty has been able to achieve, and may yet still be able to achieve, given that countries in the beginning were so pessimistic about the possibility of it succeeding that there was difficulty in them signing up, that there was a 25-year time limit on it so that people could have a get-out clause and in 1995 it was renewed, and that perhaps we should have just a little bit of trust that Britain, having reached a minimum deterrent status, should not at this stage express a unilateral commitment to disarm against the background of the debate we are having; and that is very important to the way in which we look at the legal issues that Bernard Jenkin has been putting before you.

Q127 Chairman: That is a long question. Can you try to make it a snappy answer?

Mr Kent: I think, certainly, the NPT has probably prevented other countries from developing nuclear weapons. That is very positive. It is under great threat. The Americans have just signed a treaty negotiating nuclear technology with India, though India has never signed the NPT and it has now got nuclear weapons. So there are grave threats going on to the NPT but its positive achievements, I think, have to be acknowledged.
Q128 Linda Gilroy: It has been far more successful than most people thought it could be at the time that this was all started.

Mr Kent: Indeed, so.

Q129 Chairman: Can I ask you one final question about legality. Accepting your view for the purposes of this argument that Britain is in breach of its duties already to negotiate and to disarm generally and accepting your view that there is a different issue about the life extension of Trident, if this decision by the Government were limited to the replacement of the submarines, the platform from which these weapons are fired, is that any reason to suggest that that decision itself would be illegal?

Mr Ainslie: I can answer this probably in terms of the timescale that we are talking about here. We are extending our nuclear capability for a long time into the future, and that is really sending this message.

Chairman: That is a different issue, sending messages and all of that. Is it illegal to replace a submarine?

Mr Hancock: There are two things, not the missile, the weapons.

Q130 Chairman: What is the answer?

Mr Kent: I would think probably not, but the legality requires the negotiations. That is where the issue is.

Chairman: And that is a different issue, but replacing the submarines as such is not illegal?

Mr Kent: I am not a lawyer, but I would think that a case could be made that it was not illegal, just the submarine.

Q132 John Smith: You are all experienced campaigners. The White Paper has now been published. The Government has clearly declared its preference. Are you winning the argument? Are you winning the hearts and minds of people following publication of this White Paper or are you disappointed in the level of public interest and support. I must tell you that, as far as I understand it, this is the first formal public hearing since the White Paper was published and the attendance is very sparse.

Mr Kent: I am disappointed and encouraged. We have been through a period where nobody was interested at all in these matters. I spoke in Hexham on Saturday to 250 people, in Dorchester to 250 people. There is an interest. I have never been asked to write for the Yorkshire Post before and I am doing a feature article. There is a growing interest in this issue. We are nothing like “Make Poverty History” of two years ago, nothing like it, but there is a serious interest growing.

Q133 John Smith: And the CND of the 1980s?

Mr Kent: Not quite, no, not yet.

Mr Ainslie: I think in terms of the Scottish perspective, I always wear two hats. I am involved with the Scottish Campaign for Nuclear Disarmament but there is another group, which is Scotland for Peace, which is a joint initiative involved with trade unions, and that joint group has taken this issue on and there have been three debates in the Scottish Parliament.

Q134 Chairman: As I understand it, this session has been live on Sky, so we have reached an audience of billions. If there are no further questions, may I say thank you very much indeed to the witnesses and to the Committee for becoming genuinely engaged in what has become a very interesting issue.

Mr Kent: Can we thank you for the opportunity.
Tuesday 23 January 2007

Members present:

Mr James Arbuthnot, in the Chair

Mr David S Borrow
Linda Gilroy
Mr David Hamilton
Mr Adam Holloway

Mr Bernard Jenkin
Robert Key
Willie Rennie
John Smith

Witnesses: Professor Richard L Garwin, US National Academy of Sciences, Mr Paul Ingram, British American Security Information Council (BASIC), Dr Stephen Pullinger, International Security Information Service (ISIS) Europe, Dr Jeremy Stocker, International Institute for Strategic Studies (IISS), and Dr Lee Willett, Royal United Services Institute (RUSI), gave evidence.

Q135 Chairman: May I begin by welcoming all of you to the evidence session on the strategic nuclear deterrent and may I also welcome some Hungarian parliamentarians who are here to watch what we are doing and to make sure we do it right. To the witnesses, may I give you a particular welcome and may I ask you to introduce yourselves please, perhaps, Professor Garwin, starting with you, and to give just the very briefest background about you and then we will ask you about the White Paper and the strategic nuclear deterrent.

Professor Garwin: I am Richard Garwin, a physicist and a long-time member of the President's Science Advisory Committee and head of various military panels, including its Naval Warfare Panel in 1971, the Submarine Warfare Panel and the Aircraft Panel, and I have been working with nuclear weapons since 1950 to the present day.

Mr Ingram: I am Paul Ingram from the British American Security Information Council. I have written a few papers on the Trident replacement and was the author of the Green Paper Decisions over the Future of British Nuclear Weapons, which I believe all members were sent at the beginning of December, before the White Paper came out.

Dr Willett: I am Lee Willett, Head of the Maritime Studies Programme at the Royal United Services Institute or RUSI. I am responsible for running the Trident replacement and was the author of the Green Paper Decisions over the Future of British Nuclear Weapons, which I believe all members were sent at the beginning of December, before the White Paper came out.

Dr Pullinger: I am Stephen Pullinger. I am Executive Director of the International Security Information Service (Europe) which is based in Brussels. Whilst I have been there for 18 months, I did spend 15 years in this country working on these issues and that is why I have retained my interest and that is why I am here today.

Dr Stocker: I am Jeremy Stocker. I am a consulting research fellow at the International Institute for Strategic Studies where I have been working on a paper entitled, “Nuclear Deterrence in the United Kingdom”, which will be published at the end of next month.

Q136 Chairman: May I begin by asking each of you to summarise, in two or three sentences, your basic reaction to the Government's White Paper so that we have got an idea of the general approach you take to this White Paper.

Dr Stocker: I think, in the main, the White Paper gets things absolutely right. There are some unanswered questions, but, in terms of the decisions it has made about the future of the deterrent capability, I think it is the right answer, albeit probably an inevitable conclusion. What is missing from the White Paper is a broader strategy to tackle proliferation which ties in with deterrence, but also diplomatic and defensive measures into a more all-encompassing strategy to counter proliferation and that is what the White Paper does not address.

Dr Pullinger: I think, following on from that, my essential critique is really to do with the non-proliferation aspects of this question and I think the White Paper underestimates the threat that is posed currently to the non-proliferation regime. Accordingly, it does not reorder nuclear priorities to put exactly non-proliferation at the top of the list, rather that it still seems to be thinking about deterrence primarily as the threat which has to be met. There is a reordering which needs to take place which is not reflected here and the White Paper does not make the connection between denuclearisation and non-proliferation. To me, non-proliferation can only ultimately be successful if we also follow the parallel path and integrated path indeed of denuclearisation. Therefore, what I would have liked to have seen was our nuclear weapons policy, our nuclear doctrine and our non-proliferation policy all in synchronicity and I do not see that in this White Paper.

Dr Willett: I think it is fair to say that the White Paper is arguably the most comprehensive, open and official review of Britain's nuclear deterrence policy and policy on capability that we have seen. It makes no significant changes to the Government's policy, the British policy, but it does clarify some important aspects of the Government's position. It is a White Paper, not a Green Paper, so rightly it makes a policy recommendation and I support the recommendation which has been put forward, although I would admit that there are certain significant caveats and significant questions which still need to be looked at. The Cold War may be over, but arguably the nuclear age is not and one of the challenges of the White Paper is trying to explain these issues when some of the issues are so sensitive to national security that they cannot really be put forward in a public document. There are some
unanswered questions on deterrence, how it works and the scenarios that we think it may or may not be relevant for, why we need a deterrent and the political implications of that and political influence, the cost and international relations with other parties. One of the big things, I think, of course is that what we have with the White Paper is a process where a series of decisions has set in motion a process for renewing the deterrent through building a new class of submarines and through the decision to buy into the US Life Extension Missile Programme, but it is important to point out that arguably the real decision does not come until the middle of the next decade when decisions on submarine numbers, submarine build, missiles beyond the LE and the new warhead need to be made.

**Mr Ingram:** Picking up on Lee’s point there, that is one of the most comprehensive statements by any government on nuclear weapons policy. I would underline that I think that is to be welcomed. The problem of course when you expose the nuclear weapons policy in this way is that it highlights a number of contradictions and discrepancies and I believe that the White Paper does that and there are contradictions within it. I would very strongly endorse Stephen Pullinger’s point about non-proliferation and I would say that this White Paper underlines business as usual which I believe is over-cautious, that it demonstrates a tendency within the Ministry of Defence to over-engineer and over-equip itself for particular tasks, this one being one of them. I think essentially it demonstrates an institutional momentum that has its roots back in the Cold War and I do not believe that it demonstrates the new thinking required for the 21st Century.

**Professor Garwin:** The written evidence that I and my colleagues have provided deals mostly with the narrow question of maintaining the UK’s strategic nuclear force in the post-Cold War world and, for that, we believe the White Paper, the decision to replace the submarines, is highly premature. The US Trident submarines operate two thirds of the time at sea and the UK submarines about one quarter of the time at sea. The lifetime of the US Trident or as a running-on of the same old system, but in different submarines and, therefore, essentially renewal of the existing deterrent?

**Mr Ingram:** It is a bit of both. It is a running-on of the existing system, but, given the expected time that it would take to construct a new generation of submarines, I think the intention of the Ministry of Defence is to have a new generation of submarines. Otherwise, it would be very simple and quick simply to restart the production line of the Vanguard class and to construct a new Vanguard class, and that is a construction time of up to five years rather than the 17 years that the White Paper outlines. Therefore, it is a bit of both because we will be deploying, and will continue to deploy, the D5 missile with all the existing warheads, but in a new generation of submarine. One of the points I made in my evidence was that one of the choices which was not outlined in the White Paper and which could have received much more consideration is simply restarting that, of just restarting the production line of the Vanguard class which would reduce the lead-time down to maybe seven or eight years in order to account for some relatively minor modifications. After all, the Vanguard class is not at all out of date and we are not replacing it because the technology is particularly dated; we are replacing it because there is this belief, challenged very eloquently, I believe,
by Richard Garwin and myself, that the submarines are wearing out beyond repair after the mid-2020s.

Q138 Mr Hamilton: Professor Garwin, in your written statement and indeed in your opening remarks, you referred to the possibility that you cut a hole in the side if you wanted and do a bit of engineering work and this of course could extend the life beyond the 30 years. I have got an engineering background in mining for 20 years and I have worked with machinery all my life, but I have never seen any machine that can go beyond its time without major repair. Really the balance has got to be surely the balance of the repair work which is required to do a job or indeed to buy new. Could you expand on your belief that it is quite simply a matter of extending the life by ongoing maintenance?

Professor Garwin: In fact the submarines are in maintenance for a three-year major refit period and one would expect to have such continuing for the life of the submarine. Now, in principle, as one continues to extend the life, the costs go up and eventually it is cheaper to replace the submarines, but we do not know that and I do not believe the Governments know that either. Very often, the people who make the decisions are not experts and they do not even know to ask the questions and the facts are only established when they are challenged. That is the way it is in the United States and I doubt that it is different over here. Very often, as I explained in my testimony, in connection with the B52 aircraft in the 1960s, the Air Force was saying, “You cannot fly the aircraft beyond 1970”. Well, we fixed the wings, we fixed the auto-pilots so that the wings were not subject to so much metal fatigue, we re-engined the airplane and it flies even now and it is a very valuable airplane. The same thing has happened with submarines and other large capital expenditures, so the submarine has the same mission for the future as it has had for the past. One might limit the diving depth ultimately as the submarine accumulates metal fatigue, but one can fix it too. There are many things that can be done and what the Government needs to do, in my opinion, is to share the details of the analyses and the costs.

Q139 Mr Hamilton: We have four submarines, the United States has more than four submarines. Viewed on a maintenance cost basis, you get an augmentation of the amount of submarines that you have. You were talking of the B52s and, if you had a whole host of B52s, you could actually play with it. We all have to balance, as politicians, the industrial base of the United Kingdom and indeed we have contracts where you can actually develop and maintain contracts for refits or indeed new submarines coming on to base. How do you deal with the maintenance of the ships that go out to sea and indeed being able to keep other ships and doing the maintenance levels which would be required with four submarines?

Professor Garwin: That was planned and, as I say, the submarines have an easier duty than the US submarines and they have planned major refit intervals. The question of the skills base and the manufacturing plant, that is a big problem, but, if one builds a submarine every four years instead of every two years so one has maybe a surplus of people, that does not run up the cost very much; the cost is not only the people, the cost is the equipment and the steel that is required, so we need to see those numbers. Just because BAe says that 22 months is the cadence that they should have does not mean that the Government cannot place orders at a longer interval and still maintain reasonable skills.

Q140 Chairman: Are you saying that there is a surplus of skills available at the moment?

Professor Garwin: The contractors will reduce the number of people working from 750 to 250 rather arbitrarily and the market accommodates that. We have the same problem in our aircraft industry and they argued, in the supersonic transport programme, that they needed the SST programme in order to maintain the skills. Ten years later, Boeing thanked me for helping to kill that programme because it let them concentrate on the subsonic aircraft which was a much bigger, commercial market and the UK/French Concorde did not result in an airplane of which the United States would have to buy 500 in order to compete, but only 16 were ever manufactured. The market actually does respond. The skills do not vanish and they can be archived. There was the same problem with the Clinch River breeder reactor when Westinghouse was arguing that, if we did not build that, our nuclear plant skills would vanish. Well, they are transferred to the French and then they are transferred back when necessary and the United States and Britain can do more sharing of submarine manufacturing and technology than has been the case. If we can share nuclear weapons, technology and secrets, we can do a little bit more in the submarine area too.

Q141 Mr Hamilton: Does any panel member disagree with that?

Dr Willett: Interestingly, there are not issues or theories which are black and white in this and there can be differences of opinion. It is a simple issue really in that you can only really have a longer life for submarines if they are designed and built with a longer life in mind and perhaps I may explain some reasons for that. In principle, the US Ohio class are designed and built with a longer life in mind. Arguably, there is nothing technically impossible about doing this, but the risks and the costs do increase considerably while the availability actually declines and so delivery, so in the end you get very little return in terms of life extension. The risks and the costs in particular grow sharply towards the end of the life and through the extended life cycle in particular. First, there is the need for the increasing re-evaluation of the pressure hull, the
reactor and the diving systems as the boat moves beyond the period that is covered by the safety case. Extending the life might require, for example, a new reactor because, if you are looking to extend the life significantly the current reactors only have 25 years of certified life. Also, the refit process for putting in new reactors is quite significant, so, if we are talking of two to three years to put in a new reactor in order to extend the service life for five to ten years, it is not really delivering you a huge amount of value in terms of time. There are also challenges for replacing combat systems on board, key components to do with the basic survivability of the submarine, and again all these systems have a specified design life, so there are very significant challenges there. Secondly, there are challenges in maintaining the supply chain. Submarine components are very bespoke and it is increasingly difficult to source parts and to order spare parts for a system that was designed 25 or even more years ago. Arguably, supply chain costs do effectively spiral as the submarine moves beyond its design life. Thirdly, in the UK one can argue that safety standard requirements actually are becoming more onerous, so the emphasis is on the Navy and the MoD to prove to an ever-increasing degree the safety of the submarine. Finally and arguably, an older boat loses capability and increases risk with important things like signature, for example, for the submarine. It is like an old car and it will become clankier and it will cost you more and more money to make it as quiet as it was before. Now, the US system is somewhat different because their system for certifying the safety of the submarine is different from ours. It is rules based and they have to show compliance with rules as opposed to meeting safety standards. They have more regular maintenance of their boats because they have more of them, so their boats are running through a more regular maintenance cycle than ours are, so the effects of the ageing are reduced and, as I said previously, the US boats are designed for a longer life. I would not obviously dare to try to disagree with someone of Professor Garwin’s eminence, but that is my understanding. I think the MoD have looked very closely at all of this and their view would be that it can be done, but it is very, very expensive and very, very risky. There are others that argue that extending the life of a current boat, even only for a limited period, may cost as much as half the price of building a new boat, so it does not exactly deliver value for money. However, what is increasingly evident, as has been seen in previous classes of British submarine, is that the risks and the uncertainty in doing this increase exponentially and it is very, very hard to plan for these eventualities. Yes, I would agree with Professor Garwin that you can do more to co-operate and perhaps there are lessons to learn from both sides, but there is experience from recent cases. In the Astute class, for example, it has been well documented that the gap between building Vanguard and Astute was responsible for the draining of industrial skills and one only has to look at local newspapers in Barrow to see the submarine builders from Australia actually recruiting in Barrow to try and grab our expertise, to add weight to the argument that these skills can vanish.

Q142 Linda Gilroy: Dr Willett has to some degree answered the question I was going to ask, but I can perhaps put it a different way. It was about the cost of extending life and how that related to the cost of renewing them, and I think I heard him say that the price of extending could be in the region of half as much as buying a new vessel so that it could in fact be cheaper to build over the long term. Also, perhaps I can ask both Professor Garwin and Dr Willett the extent to which in the new methods of procurement, procuring capability over a period of time, the point you were making. Professor Garwin, we need to know the cost, but the fact that our Government procures capability for a price with gain share built into it, why would we need to know the cost if the company could be held to that? 

Professor Garwin: It is very hard to hold the company to a fixed cost when they are building a unique system which is vital to the nation. There is just no money to squeeze out of those companies, so the fact is that you will pay the actual cost of production. You will get the skills and, if they have gone to Australia, you can get them back because you will hire them on the market, so the three-year reactor replacement time, if that is required, comes with a major overhaul. A submarine is a big ship and you can replace the reactor while you are doing all kinds of other things there too. What really needs to be done is to have these component costs shown. You cannot, in my opinion, go blindly and ask for a fixed price and hold the company to it, and I think experience shows that problem with the Astute class.

Q143 Willie Rennie: We have already heard this morning that the American submarines last longer. Would there be a value in trying to rejig our programme to make sure that the next set of submarines ties in with their construction design needs to make sure we get the best value for money out of any new submarines? 

Professor Garwin: I missed the question. Are you asking whether American expertise could be brought in to set a basis for the costs?

Q144 Willie Rennie: Would there be a value in us rejigging our procurement procedure to tie in with the American construction of their new submarines?

Professor Garwin: Well, it is an option and these options, in my opinion, should all be laid out with the costs so that the Government will know better what decision to make and Parliament can do its job in the bargain. I am not saying that it is absolutely sure that life extension is (a) possible and (b) cheaper, but I think it highly likely, especially since the tempo of operations has been reduced beyond the initial plan for the UK submarines. As
for design life, I think there is a minimum life of 25 years, but it is not designed to fail after 25 years. It is not like an incandescent light bulb which has a 1,000-hour life at a specified voltage because, if you make it brighter for a given wattage, it has a shorter life, so that is the optimum that people have found. Here, you are quite uncertain. You say, “I am sure that it will run for 25 years and I give my guarantee”, but only in service and, as it comes to the end of that, we know what the numbers actually are. There, we need to know the cost of the retrofit, if a steam generator needs to be replaced and, as for the signature, that is something that is the sound that the submarine puts into the water and something I know very well. It is thoroughly monitored, it can be fixed with varying frequency or whatever, it can be managed, and additional quieting can be introduced into the submarines in service as well as in a new generation of submarine, but let us not forget that the job here is to put nuclear weapons at sea in a deliverable fashion. Things can be done with smaller systems, the guidance systems are much smaller, the testing programme would be cheaper and that would be an innovation well worth pricing out to see whether that is what you want to do.

Q145 Mr Holloway: Professor, there are comments made that the safety standards were somewhat different in the UK as compared to the United States. Do you have any comment on that?
Professor Garwin: No. I know a good deal about the civil reactors in the United States and I know that our nuclear Navy prides itself on the safety of its operations. We do not have a civil regulation, as I understand it, of our nuclear plants in ships or submarines, but we do have the equivalent, so before someone says that the UK submarines are safer from the point of view of nuclear accidents than US submarines, I would have to see it laid out side by side, but I do not know.

Q146 Chairman: Dr Willett, I wonder if you could expand on your point that safety regulations in this country in nuclear terms are getting more and more stringent. Extending the life of a submarine would presumably cause some degree of problems for that process, but why are safety regulations in this country becoming more and more stringent? Is that a matter of simple choice? What drives it?
Dr Willett: Well, in fact and in truth, that is an opinion that I have picked up from some interview material which we have been conducting for our research paper, so I can perhaps come back to you with clarity on that, if I may.

Q147 Chairman: Please do.
Dr Willett: With regard to the comments that Professor Garwin raised about the safety case issue and to respond to Mr Holloway’s point, if I may, from my understanding, the UK has an external procedure for verifying the safety cases of the submarines, whereas the US Navy does it more internally. In the US, the US Navy has a set of rules and regulations that it needs to show compliance with, whereas here there is actually a safety standard that the Royal Navy has to meet. The US measures its safety internally, whereas the Royal Navy does not have that luxury.

Q148 Mr Hamilton: By that, you are meaning that the regulatory authorities within the UK would find it difficult to argue to support a system or for a design to continue?
Dr Willett: The submarines are designed, and built, with a 25-year life and all those who appear to be involved in the game at the moment appear to find it very, very difficult to find a justification for extending the life any further than that. I am not saying that the British submarines are safer than American submarines or the other way round, it is just that the procedures for verifying that process are very, very different and not necessarily comparable.

Q149 Chairman: Mr Ingram, on this issue of skill, in your paper which I found very helpful, the basic paper, you said, “Exaggerated warnings of catastrophe from any delays should not frighten the Government into a hasty decision”. Are you saying that the warnings of catastrophe about losing skills, which certainly we have been given, we have been told that these skills are at a critical level, are you saying that these warnings are exaggerated and, if so, on what evidence do you base that assertion?
Mr Ingram: Essentially what I am saying is that, whilst it is costly to restart a nuclear submarine programme, we have already seen with Astute that it leads to delay and overcost. It is not impossible, for many of the reasons that Richard Garwin has already outlined to the Committee, that some of the more unique skills are transferable globally, that it is possible to retool, particularly when you are creating a new submarine from scratch and that it is not as black and white as has been hinted at by witnesses to this Committee before Christmas. I would also just reflect back to the Committee its own report as a result of the previous inquiry which stated quite clearly, that industrial reasons should not be leading this particular decision because this decision is more important than the industrial reasons for replacing a submarine.

Q150 Chairman: Yes, of course that is right. The industrial question of whether, if we delayed, we would then be capable of meeting our strategic defence needs is something that we would have to take into account.
Mr Ingram: You certainly need to take it into account, but also the Committee need to consider the longer term, not simply the transfer from Astute to the Trident replacement. The Rand Report, which I refer to in my more recent evidence, suggests that it would actually be advantageous from an industrial perspective to delay the start of construction of the Trident replacement in order that there is not this enormous gap that has been the concern of the
Committee in the previous inquiry between Astute and the Trident replacement construction. There would be an enormous gap between the replacement programme and the NUFC, the next generation of submarines to replace Astute, so, if we are not careful, if we rush into this decision now, we could well be facing exactly the same, or perhaps an even worse, industrial problem when it comes to that gap with the next replacement submarines.

Q151 Chairman: Yes, as I understood it, because I read that report following your reference, the worry about that was the gap between the end of the strategic ballistic submarines and the NUFC programme.

Mr Ingram: Yes.

Q152 Chairman: That is, I think, not an issue that we should concern ourselves with at the moment. At the moment, we are worried about whether it is possible for British industry to create these submarines at all. I do not think that you have actually given me evidence to suggest that industry is wrong in saying that these skills, once they have left, would leave for good. When they tell us that, if they left, they would leave for good, can you give us any evidence to suggest they are wrong about that?

Mr Ingram: I would say that, as with so much of the evidence that you are hearing today, there is actually a great deal of speculation involved. We have speculation that the cost of extending the life of the Trident submarines may be as much as half the cost of replacement. That is entire speculation. There is no reference in the White Paper to those costs. Similarly, if there were a delay in the replacement of Trident, there is the speculation that the submarine base would be impossible to restart. I would say that the burden of evidence is on industry to demonstrate that because we have already seen quite a significant gap between the completion of the Trident construction programme and the start of the Astute programme and, as I say, that came at a cost and at certain delay, but it was not impossible. With a similar gap, one could quite genuinely assume that it would be costly and it would take longer, but it would be far from impossible to reconstruct the submarine base with a relatively short gap of five or ten years because many of the unique skills could be brought in from outside and there could be retooling at a cost.

Q153 Linda Gilroy: From where do you get the skills that build a ballistic submarine? There are only three countries in the world that do that at the moment. Are we going to go to the Russians or are we going to allow our skills base to go to the Russians? We have talked about the Americans, but I think there is also the debate to be had about our independent deterrent.

Mr Ingram: Well, our deterrent is not independent when it comes to procurement and we already entirely rely upon the Americans for the delivery of the missiles. There is no reason at all why we should not co-operate more with the Americans when it comes to the construction of the submarines, as Professor Garwin has already hinted. There are also the French with whom we are collaborating over the construction of the carriers. These are concerns that could easily have been more widely considered in the White Paper, but, because of the rush into publication and the rush that this Committee and Parliament are having to comply with in order to make the decision very quickly, we are not having that sort of information and consideration over the options, which is why there is a very major advantage to delaying this decision beyond March.

Dr Willett: Arguably, the crunch of the decision only really comes, as I said previously, within the next decade when we have to start cutting metals, so there is plenty of time to talk about this between now and then. The Astute case proves that there are skill losses and cost overruns if you delay these kinds of decisions. Now, as Paul rightly said, yes, there are cost issues, but cost is one of the major things. Yes, we can delay the decision, but it will cost more. Now, are you prepared to delay this decision and pay for the implications of doing that? In terms of the independence of procurement, yes, of course we have to buy our system from somewhere. What we do have, through our co-operation with the Americans, is the best system that money can buy for affordable cost. There are options for closer co-operation on submarine design, reactor design, submarine build and reactor build, but there will be some political obstacles to that and tensions with the US about what they can and cannot share, in terms of the technology, with us. The options for increasing co-operation, I would argue, yes, would help the potential to reduce costs, but, in terms of tying ourselves into the American time-lines, the time-line gap actually is not as bad as people think it is. The number that people refer to from the American point of view is 2042 when the last American boat comes out of service, but in fact their first new boat will be ready to go into the water in about 2029 and ours we will be looking to go into the water in the mid-2020s, so the time-line is not that different and perhaps, therefore, there is some scope for looking to bring the time-lines more into line.

Dr Stocker: I was just going to comment on our lessons from the Astute programme. The lesson to be drawn surely is not that it is possible to recover from a mistake, but it is better not to make the mistake in the first place and why repeat it.

Q154 Mr Holloway: It seems to me that Professor Garwin and Mr Ingram are suggesting that industry is being rather self-serving in this. Is that fair?

Professor Garwin: Yes, though that is the purpose of industry, to make money for the stockholders. In fact there is an incompatibility with a 45-year life and building a ship every 22 months. Under those circumstances, you would have to have about 25
Chairman, Dr Stocker is far, far earlier than they would need to necessarily. Making a decision now and committing on this in belief industry are bouncing this Government into answer your question specifically on industry, I do disarmament in the lead-up to 2010. Therefore, to into the international community for greater possibility of us actually putting a serious proposal decision even for four or five years, not least the have not gone into in this Committee, which indeed

Now, there are all sorts of advantages, which we over where our future lies and we will be that much to public to engage in the discussion and the debate us much more time for Parliament and for the be more consistent with the procurement of other main gate in 2010–11. That is an option that has not been put before us in the White Paper, but would be more consistent with the procurement of other military systems. That, at the very least, would give us much more time for Parliament and for the public to engage in the discussion and the debate over where our future lies and we will be that much closer to the point of deployment of a new system. Now, there are all sorts of advantages, which we have not gone into in this Committee, which indeed the White Paper has not gone into, of deferring this decision even for four or five years, not least the possibility of us actually putting a serious proposal into the international community for greater disarmament in the lead-up to 2010. Therefore, to answer your question specifically on industry, I do believe industry are bouncing this Government into making a decision now and committing on this in order that they can have the security of production far, far earlier than they would need to necessarily.

Q155 Mr Holloway: Does Mr Ingram think that British industry with international shareholders today are bouncing the Government into an early decision?

Mr Ingram: Well, at the very least, as was hinted by Lee Willett just now, there is the possibility of us simply making a decision in March, not to go the whole decision, but simply to investigate the options further and to make a final decision at main gate in 2010–11. That is an option that has not been put before us in the White Paper, but would be more consistent with the procurement of other military systems. That, at the very least, would give us much more time for Parliament and for the public to engage in the discussion and the debate over where our future lies and we will be that much closer to the point of deployment of a new system. Now, there are all sorts of advantages, which we have not gone into in this Committee, which indeed the White Paper has not gone into, of deferring this decision even for four or five years, not least the possibility of us actually putting a serious proposal into the international community for greater disarmament in the lead-up to 2010. Therefore, to answer your question specifically on industry, I do believe industry are bouncing this Government into making a decision now and committing on this in order that they can have the security of production far, far earlier than they would need to necessarily.

Q156 Mr Holloway: Chairman, Dr Stocker is frowning at some of this.

Dr Stocker: Yes, I specifically wanted to comment on the idea that the UK and the US could pool the production of submarines. The practical effect of that would be that we would buy them from the Americans because the Americans are not going to be buying nuclear submarines from us. That argument is going the other way, I think.

Q157 Chairman: And you would find that objectionable?

Dr Stocker: Not necessarily. If we decided, as part of the industrial strategy, that we no longer wanted to build nuclear-powered submarines in the UK and that we wanted to buy not just the missiles, but also the submarines from the United States, that might be a decision we could take, but I do not see the UK at this stage being prepared to surrender that amount of its defence industrial base to another country, no matter how friendly it was.

Q158 Willie Rennie: You would not necessarily have to get the Americans to do the construction and at least, if you co-operated on the design, there should be other benefits there.

Dr Stocker: That is another issue and indeed, although it is not in the White Paper, it is in the exchange of letters between the President and the Prime Minister, the intention to collaborate further on future submarine platforms, which would indicate that the Government are intending to do just that and there would be clear mutual advantage in doing so.

Q159 Mr Jenkin: Professor Garwin and Mr Ingram, what perverse and misplaced motive does the Government apparently have to avoid even considering these options in the White Paper? What do you ascribe that to?

Professor Garwin: I am a physicist, not a political.

Mr Ingram: There is pressure from industry, as has already been stated, so that is one. There are potential political legacies of particular individuals which I would not want to go into because that is more the political thing which you might have more to say about than I would.

Q160 Mr Jenkin: Are you talking military or political?

Mr Ingram: Political. Thirdly, it could demonstrate a certain amount of caution on the part of many in the Ministry of Defence to ensure that, at all costs, we have a boat out at sea at any one time, at all costs, and I would say that this is a belt-and-braces approach illustrated within the White Paper, I might add, by the statement, which I believe is quite courageous, that we absolutely require four submarines in order to have one submarine out at any one time when in actual fact the average patrol length of a submarine is over three months. What that is saying essentially is that it takes at least three months to resupply a submarine once it has come back to port which, as I say, I think is a complete
We move on to the role of institutional momentum which I highlighted at the beginning.

**Q161 Mr Jenkin:** We move on to the role of deterrence. The White Paper states that “the fundamental principles relevant to nuclear deterrence have not changed since the end of the Cold War, and are unlikely to change in future”, yet arguments to support that thesis are singularly lacking from the White Paper. Is that not rather a shortcoming and would the panel like to comment on whether that is a valid statement?

**Professor Garwin:** I think there is very little logic in carrying the so-called deterrent force from the Cold War era into the present. One has to ask: will there be a definable enemy with missile defences, for instance? That would require a lot of nuclear weapons to keep them from what? Well, we do not know and the Prime Minister says it is not knowable, but, as has been indicated, there are many requirements here which are all compounded. One assumes that the Americans and the British will have a falling-out so that the UK has to operate at least one boat at sea all the time because the Americans will never provide the nuclear support. That is very unlikely. It may be that there will be a falling-out and, under those circumstances, then, in order to provide for its own deterrent, the UK will have to operate one boat at sea at all times, but I should say, as for buying in US submarines or Russian submarines, I proposed very seriously when I received the Enrico Fermi Award in 1996 that the US buy tritium from Russia. That was absolutely necessary for our nuclear weapons, but it has a lifetime of 12 years, so you buy it long enough in advance that the stockpile is always topped up and you have then five or eight years to start your own production in case the Russians do not come through with the sales in advance. The same thing is true here, except that the lifetime of a submarine is at least 30 and may be 45 years, so you have a time to start your own production if your supply source raises the price or does not propose to sell you any more.

**Q162 Mr Jenkin:** Sorry, but I want to talk about the role of deterrence.

**Dr Pullinger:** I think it is a very good question because the public perception of deterrence and our general assumption about nuclear deterrence has always been in the context of the Cold War where we had nuclear weapons in order to deter the Soviet Union, an ideological and potentially hostile power, from attacking us. In that sense, the deterrence scenario is essentially defensive, it is responsive and I would say that it has the greatest capacity for credibility in that sense because, if the survival of the United Kingdom is at stake, then deterrence is increasing its credibility, but that scenario does not exist any more, so we are trying to apply the deterrence theory to the new sorts of scenarios we are likely to be facing in the future. It is not for the Government to speculate about this because I am sure they do all this thinking in Whitehall of particular scenarios which they cannot publish in a White Paper, so I suppose it is the duty of academics and think-tanks to try and think through some of those issues in public.

**Q163 Mr Jenkin:** Do you honestly believe that North Korea or China or Russia would behave in the same way as they do now if the United States and the United Kingdom and France no longer possessed nuclear weapons? Are you seriously saying that it has no effect on their behaviour at all?

**Dr Pullinger:** No, I was not saying that, no. I certainly would not want it to be a situation in which North Korea and Iran had nuclear weapons and we did not or the United States.

**Q164 Mr Jenkin:** Well, then the doctrine of deterrence still applies, does it not?

**Dr Pullinger:** What are we deterring them from doing? That is the question. We can contain North Korea and deterrence will play a role in that and we can deter Tehran from taking certain actions in the Middle East, but what I am saying we should try and investigate is a scenario such as that of the Iraq situation. When we were going into Iraq to challenge their weapons of mass destruction programme, if they had actually been armed with nuclear weapons, to what extent would we have been self-deterred from taking serious action against them?

**Q165 Mr Jenkin:** Well, we did not rule out a first strike on the Soviet Union when we considered the Soviet Union a threat and they had nuclear weapons.

**Dr Pullinger:** But we never directly confronted the Soviet Union because—

**Q166 Mr Jenkin:** Thank God!

**Dr Pullinger:**—we knew the ramifications of what might happen.

**Q167 Mr Jenkin:** Yes, so the doctrine of deterrence is, therefore, quite useful in preventing large-scale wars.

**Dr Pullinger:** In terms of Iran, which is the one I am trying to think about, yes, but I am saying that it is going to be a strategy of containment rather than we are going to be prevented from taking physical action for disarming Iran once it has nuclear weapons which can deter us. That is the point.

**Q168 Chairman:** You said in your opening comments that there was a gap in the White Paper in relation to the theory of deterrence. What did you mean?

**Dr Willet:** Well, I endorse to an extent what Dr Pullinger says in that, as we have been seeing just now, something like the issue of the deterrence theory is a very open-ended question subject to...
much interpretation and, arguably, it is effectively an academic exercise and it can be very murky in its background and its conclusions.

Q169 Chairman: Is that different from the past?
Dr Willett: It has always been the case and, if you look at the White Paper compared to the SDR, for example, there is a far greater discussion of deterrence and its principles than there was in 1998, but it is very difficult for the Government, I think, to delve into it in the White Paper for two reasons. First of all, it may convey any thinking to a potential adversary and, secondly, as I say, it is an academic exercise generally, so the Government may leave its thinking open to intellectual criticism and perhaps a White Paper, being a policy paper, is not the right forum to raise such murky and ill-defined questions. I think on the key point about how the deterrence does, or does not, work, there are two points worth bearing in mind here. First of all, since the end of the Second World War, we have had the existence of nuclear weapons, but no major state-on-state wars. Yes, there have been major and minor wars by proxy, but there have been no major state-on-state wars. One of the questions to ask here is: does the existence of nuclear weapons mean that we are effectively living with nuclear weapons, but with no major state-on-state war, or, if we get rid of them, are we looking at an increased risk of major state-on-state war?

The second point to make is that of course what is new, however, is that we have to have a better understanding of how deterrence works in these new scenarios with new actors in mind and with new future actors in mind. I would disagree that there is no direct threat to the UK at the moment, and the whole point of that is that we just cannot see what threats there will be in 50 years’ time. The Third Reich, for example, rose and fell in just 30 years.

Mr Ingram: Firstly, I disagree. I think the White Paper did put its big toe into the idea of the potential for deterrence and I think that is one of its problems. For example, it raises the possibility of using nuclear weapons to deter state-sponsored terrorism and the very major weakness of that possibility is actually thinking through the genuine scenarios. Let us say, a state supplies a terrorist with nuclear weapons, those terrorists then independently go off and blow up a nuclear weapon in London. Aldermaston comes in, looks at the traces and finds out that this material originated from Tehran or wherever. Are we seriously talking about several weeks, perhaps even months, after this explosion dropping a nuclear weapon on Tehran? It does not bear credibility and this is one of the major weaknesses of trying to extend deterrence into the terrorist situation. Secondly, we all agree, I believe, that we do not actually face that threat, so why do we today have a submarine out at any one time?

Q170 Mr Jenkin: Can I challenge you on that very point? The reason we do not face that threat today is precisely because we have a submarine on patrol every day. If you took that submarine away and took away the deterrent, then the global politics would change and we would be facing those threats again. Okay, the Americans are in this as well, but that is why the world is like it is.

Mr Ingram: We could have a debate about that, but what I would focus on particularly is about the submarine being out. If we were to maintain the submarine deterrent, but not have a continuous sub-sea deterrence, which was an option raised by the Committee back in June in its report—

Mr Jenkin: Are you seriously suggesting—
Chairman: Just let Mr Ingram answer the question.

Q171 Mr Hamilton: Chairman, the Committee is not here for a debate.
Mr Ingram: Exactly, which is why I am trying to avoid the bigger debate. The focus particularly on the continuous at-sea deterrence, if we were to withdraw the boat, I believe, and you can believe differently, I believe that this would have no impact on Britain’s security today. It may do in the future, but today it would mean that we could extend the life of the existing system dramatically. Thirdly, in terms of deterrence into the future, this whole idea of the insurance, I think we have to treat our responsibilities as one of the five formally recognised nuclear weapon states in the NPT more seriously. If we go back to our commitments in the year 2000 at the NPT review conference, we see very, very significant and major progress in the agreement of 13 steps.

Chairman: Mr Ingram, we will be coming on to the NPT in a few minutes’ time. We are trying at the moment to explore the role of deterrence.

Q172 Mr Jenkin: Is there a case, as you suggest, for a comprehensive review of deterrence?
Dr Stocker: I think there is. To answer your original question about whether there is a gap in the White Paper in terms of it saying that the deterrence had changed or the fundamentals had changed, I think there is a gap there because deterrence and particularly its nuclear dimension is as relevant as it was in the Cold War, but the nature of that deterrence has changed fundamentally. It has changed fundamentally for the UK probably more than anybody else, with the possible exception of France. The context within which we might have to conduct deterrence in the future, other than in the scenario of a resurgence of a hostile Russia, has changed completely and all of the kind of assumptions and policies that we worked out during the Cold War and learned quite painfully and over a protracted period of time, most of those assumptions no longer apply. Deterrence is as salient as it ever was, but it is a very, very different kind of deterrence. I would focus in on one in particular from the UK’s point of view, which was that, during the Cold War, we had to deter a much larger, much more powerful
and overtly hostile power with relatively slender resources and that meant that we had to threaten to maximise the damage to Soviet society with the resources available. In today’s so-called “second nuclear age” where national survival is probably not at stake, threatening to devastate another society in total or in large part is neither appropriate nor credible, so actually deterrence credibility may now be based on our ability to threaten the least amount of damage to another society, but in a scenario in which nuclear weapons are relevant because somebody else is threatening to use nuclear weapons or other WMD.

Q173 Mr Jenkin: And it would be okay to have this review in public?

Dr Stocker: I think elements of it, yes. Clearly the MoD is not going to talk about how many missiles or what kilotonnage are aimed at which city and would be used under which scenario, but the White Paper says very little about deterrence. The little bits that it does say, like the independent centre of decision-making which is the Cold War second centre of decision-making reinvented, the studied ambiguity which it makes passing reference to is also a hangover from the Cold War. The White Paper really says very little about deterrence and in order to argue the Government’s case and in order to present the policy that would make deterrence more credible to the people we want to deter, I think the Government probably does need to do considerably more in spelling out a deterrence policy as well as a policy for the deterrent, which is actually what the White Paper is all about.

Q174 Chairman: Dr Stocker, when the White Paper says, “We deliberately maintain ambiguity about precisely when, how and on what scale we would contemplate use of our nuclear deterrent”, you would say that was wrong, would you?

Dr Stocker: As far as it goes, I think that statement is perhaps not right or wrong, it is inevitable. Given the uncertain nature of deterrent requirements, there is a certain inevitability to that. I read that as referring to who we might deter under what circumstances and what we might do to them. That is not the same as discussing deterrence policies and mechanisms and how deterrence might work in the new environment. You do not then have to say, “That means we will drop X number of kilotonnes on city Y under circumstances Z”.

Dr Willett: To clarify that, again one theory probably does not fit all because in the Cold War days when there was one obvious adversary working out the calculations were easier than working out how a more diverse set of adversaries that we face now, how they may figure that the deterrence works. In any new discussion of the deterrence theory, one model will not fit all. We will need an understanding of how individual states and individual actors work. There are those that argue that nobody is not deterrollable in some way, shape or form, but understanding how that works on an individual case-by-case basis is very important. The interesting point you make about the ambiguity issue, of course, is in the Cold War our strategy was based on the certainty that we would respond but now the premise is that because of the numerous and more diverse potential threats, the ambiguity that we might respond is what underpins the deterrence concept. One of the key things that the White Paper raises, and will be important in discussing the deterreins theories, is the whole issue of strategic and sub-strategic deterrence and how that works. Sub-strategic was a post-Cold War reaction to changing circumstances in the late 1990s and there has not been a mention of it in great detail in the White Paper and how that still applies, if at all, whether it is part of our NATO commitment or in other circumstances, for example against WMD threats, will be something that needs to be gone into. There are some questions still and that is a good thing, but it merits discussion in other forums.

Q175 Chairman: There are lots of questions so, Dr Pullinger, very briefly.

Dr Pullinger: I was going to talk about the sub-strategic element of the deterrent which is missing from the White Paper but there has subsequently been a Parliamentary answer in response to the question about why the sub-strategic elements of the deterrent are missing and the explanation now is that any use of British nuclear weapons would almost be by definition strategic and I, to be honest, agree with that revision because I think the sub-strategic elements in terms of the signalling to an adversary that you are on the point of going strategic does make a lot of sense in the sorts of scenarios that we are in.

Mr Jenkin: That is why you cannot keep a submarine in port.

Q176 Robert Key: Could we turn to the question of the deterrent as an insurance policy and could I invite Dr Willett to answer my first question. In the Prime Minister’s foreword to the White Paper, he says: “We believe that an independent British nuclear deterrent is an essential part of our nuclear age” where national survival is probably not at stake, threatening to devastate another society in total or in large part is neither appropriate nor credible, so actually deterrence credibility may now be based on our ability to threaten the least amount of damage to another society, but in a scenario in which nuclear weapons are relevant because somebody else is threatening to use nuclear weapons or other WMD.

Q176 Robert Key: Could we turn to the question of the deterrent as an insurance policy and could I invite Dr Willett to answer my first question. In the Prime Minister’s foreword to the White Paper, he says: “We believe that an independent British nuclear deterrent is an essential part of our nuclear age”. Do you agree?

Dr Willett: Absolutely. The insurance policy sound bite, if you like, has been much used and there are those who argue that the whole point of an insurance policy is that you do not cash it in and it is something that helps you after the event, and worrying about what happens after the event is not really what this debate is all about. Certainly I think it is very important that we have this insurance policy in our back pocket when we are talking about the Trident debate because what it does provide is a hedge against a wider variety of threats and perhaps “insurance” is the wrong word but it provides the ability to protect ourselves against, first, nuclear blackmail, secondly, against direct nuclear threats and, thirdly, as I said, as something in our back pocket for this uncertain future. The Government does have a dual-track
policy on this deterrent issue of maintaining minimum deterrence whilst also pursuing a multi-lateral approach to arms control and arguably having that insurance policy with a deterrent in your back pocket gives you the credibility to be able to pursue both tracks of that policy.

Q177 Robert Key: Could I ask Dr Pullinger, do you accept that the public finds the insurance policy argument a persuasive one?

Dr Pullinger: Yes, I think they do. I have never argued that we should abandon our nuclear weapons while other people’s potential threat to us have done, but I think it is only part of the argument of this insurance policy because I think that we do have to prepare to meet the eventuality that we are confronted by another threatening nuclear weapon state, but I do not think that is the primordial nuclear threat that we are going to be facing in the future. I think we are potentially heading towards a world of 12, 15 or 20 nuclear weapon states and that is not just me saying that, the Wall Street Journal in the first week of January, Henry Kissinger, amongst others, said: “We are on the precipice of a new and dangerous nuclear era”. I think we should be investing much more political energy in ensuring that we do not fall over the edge. I think our non-proliferation priorities should be much higher. I am not saying abandoning deterrents by any means, but arguably it is no longer the most important part of that. In a world of 15 or 20 nuclear weapon states, you are going to have them deployed in many volatile regions of the world, lots of people, lots of scientists working on the technology, the skills of how to make nuclear weapons that will be producing vast quantities of new weapons grade material which will have to be controlled. In that situation you are not going to be able to create lots of stable deterrence relationships around the world.

Although Britain will be in a fairly benign situation one hopes with nuclear weapons, we will still be affected by the proliferation of nuclear weapons, whether or not we are a target of those nuclear weapons and, of course, all the time we will have these non-state actors, terrorist groups on the fringes trying to get hold on the black market of all this vast quantity of weapons grade material that is being used. The repercussions for us will be very damaging in terms of our long-term security, so it is a re-ordering of those nuclear priorities that I would like to emphasise.

Dr Willett: I think part of the question that we have not answered yet and the White Paper does not answer, and this relates to the insurance policy, is what position the UK sees itself playing in the world. People argue that there are many other nations and they reel off dozens and dozens that do not see themselves as requiring a deterrent and that is because they do not have, or think they have, the kind of profile that we have and try and play the kind of role that we think we try to play. If we are happy to be lower ranking, assuming that we see ourselves as a global power, if we were happy to step away from that as a Government, as a country and as people and have a lower rank in the world, then, yes, we would not need 60,000 tonne aircraft carriers, we would not need the major Armed Forces that we have, we would not need nuclear powered submarines and nuclear deterrence. At the moment we have a policy decision, and if you like, a decision within the country as a whole to try and be that player. There is an insurance premium that goes with that and we have to ask the key questions here about insurance premiums, there is a value that having deterrence and securities that it offers, there is a price to that and are we prepared to pay that price and how much value does it deliver to the UK as a whole?

Q178 Robert Key: Do you think that the British public understands that we are not the fifth or fourth biggest economic power in the world by accident, it is precisely because of the projection of power in the 19th and 20th centuries that has put us there and because we are predominantly a trading nation facing globalisation, if we wish to maintain that we need to be able to defend our interest in free trade, shipping and air power.

Dr Willett: We have a global, if you like, economic foreign defence and security policy and a deterrent is one of the pillars that underpins that. One can argue that in the post-Second World War phase when we were having the financial problems that we had at the end of the war, the problems with the empire, our arrival as a nuclear power was one of the things that kept us having that high global profile at a time when other elements of that power were falling away. Today, arguably, when we have conventional Armed Forces that are reducing in size, quality and affordability challenges for the defence budget, perhaps a deterrent is one of the things that still continues to give us that global profile.

Q179 Robert Key: In the BASIC submission to the Committee you say on page eight: “Delay would allow an informed and proper and public parliamentary debate to take place. Discussion over this decision has until now been stifled by an information blackout within Whitehall”. What do you mean by that?

Mr Ingram: I mean that until the White Paper was published on 4 December, any questions that were directed at the Ministry of Defence essentially were, “Wait until the White Paper, the information will be there”. Clearly the information is not in the White Paper. We have got many questions here today based largely on speculation and the answers that we have been given have been based largely on speculation because the information that is required to make a truly informed decision is not there in the public. What I mean is that if we were to defer the decision, if the Ministry of Defence were to engage with some real information, information that would not prejudice the national security of this country but would give us a proper debate in this area, then I think we would be in a
much better position to analyse exactly the sorts of issues such as the insurance policy and the technical ability to delay this decision much more effectively.

Q180 Robert Key: I suspect Professor Garwin would agree with that broadly. Could I ask you, Professor Garwin, do you think this whole process is far more open in the United States of America or, to put it the other way, do you think in this country we are obsessed with secrecy over decision-making in this area of public policy?

Professor Garwin: Secrecy is always more comfortable for those who have the secrets. The United States does have a more open policy and procedure and the people in charge often contrive to close it; the current administration is one of those. I would say on this question that one should not confuse fire insurance with fire extinguishers; an insurance policy does not keep the disaster from happening, it tries to make you whole afterwards, the fire extinguisher may keep the disaster from happening. What we have been discussing here, the essentiality of deterrence for a first-grade power, what does that say about Germany and Japan? They are trading nations; if it is essential for the UK why is it not essential for Germany and Japan? They may not be serious but they would have to have nuclear weapons in order to hold up their heads among the nations.

Q181 Mr Hamilton: Chairman, I would like to follow that up because I do not follow the logic of the argument from Mr Pullinger or indeed the comments from Mr Willett. Mr Willett makes the assertion that if we do not have the nuclear deterrent and we want to be a lesser nation in armed forces, surely one of the big arguments is that we utilise the money that we would spend on a nuclear deterrent and put that to our conventional armed forces which actually assist us in the naval outlets that we have and indeed assist us in places like Iraq and Afghanistan if we want to utilise them. I do agree that we need to decide as a nation where we want to be as a world force for the future, but the question that Robert asked Mr Pullinger is do you accept the public assurance policy argument is a persuasive one to the general public? On what basis do you think the general public are persuaded by that argument, because that is not the public I have got. The public I have got are extremely sceptical about a Trident expansion and therefore I would like to hear clarified not the academic argument but how do you perceive the public to be on side in this issue? I do not see it.

Dr Pullinger: The public see there are other nuclear weapon states in the world. They know that North Korea has tested a weapon and the Iranian regime, which in many respects is a reprehensible one, is not complying with the IAEA and is possibly pursuing a clandestine nuclear weapons programme. They know that Russia, China and others still have those weapons, and there is no prospect of getting rid of them, so in the near term, certainly, they do not see why we should get rid of it at the moment.

Mr Hamilton: I understand the point you are making; these are arguments that are all well-tried, but I am asking a straightforward question: on what basis do you believe that the public side with your opinion and that the public are not of the opinion that we should be looking away and walking away from nuclear deterrence. I am asking, what evidence do you have?

Chairman: He has given an answer. Mr Hamilton: He has given an opinion, but I am looking for evidence which tells us that there has been some survey done somewhere that says the public want us to be doing that.

Chairman: To be fair, the question he was asked was what was his opinion. Robert Key.

Robert Key: Chairman, the only evidence I have is that I, through my website, did a survey of opinion and it came in two to one that people thought that there was indeed value in the insurance value, but it is very, very small indeed.

Chairman: Then next week we can take evidence from you, Robert.

Q182 Robert Key: If you wish to, Chairman, it might be very long. Could I just continue this theme for a moment; it is very important. In their submission to us the Church of England memorandum says that, “To assess the validity of the deterrence argument, therefore, there must be some indication of the circumstances in which the weapons might be used.” We know the Government has said that they wish to deliberately maintain ambiguity, but the Church of England’s submission says that, “All it would require is for the Government to indicate what is its overall strategy, including the parameters for the weapons’ use and any limits within which any targeting policy would be set. That would enable the Government to explain how their use would be consistent with [their] obligations in international law.” Do you think the Church of England is right in posing that position?

Dr Pullinger: Obviously there is some ambiguity about when we would use nuclear weapons but we are actually constrained by certain limits. We have provided a negative security assurance to non-nuclear weapon states that we would not use nuclear weapons against them unless they were attacking us in alliance with a nuclear weapons state; we have said we would only use nuclear weapons in compliance with international law which involves questions of discrimination, not deliberately targeting civilians, proportionality and the rest of it. There are limits, therefore, there are constraints on the circumstances in which we could use nuclear weapons, but personally I think there is too much ambiguity about the circumstances. We are saying self-defence; we would use them in self defence in extreme circumstances. The Israelis could use that argument possibly to pre-emptively attack the Iranian nuclear weapons programme;
they could say they are developing nuclear weapons which are a real threat to us, we are acting in self-defence under Article 51, pre-emption is allowed, we can go in and take this out. It is self-defence, it is extreme circumstances, no-one else is going to do it. The language we are using, therefore, is giving an awful lot of leeway to the circumstances in which we could use nuclear weapons and I personally would prefer it if we really tried to constrain it to when the national survival of the United Kingdom is at stake. We can talk about the precise terms, but I would really like to hone it down to that.

**Dr Stocker:** I was just going to add two brief comments to that. Firstly, in relation to advance declaration—things like no first use or not using weapons against non-nuclear weapon states—it is simply a health warning that in the extreme and severe circumstances under which the use of nuclear weapons might be contemplated, the value of those kind of advance declarations is likely to be minimal; it is, frankly, not going to matter what you said you will and will not do in the past, your actions will be governed by the extreme circumstances that you find yourself in at the time.

**Dr Pullinger:** Can I come back on that immediately? I agree, these things are not going to stop states doing things in extreme circumstances, but nevertheless they should not be planning to do them, they should not be planning to use nuclear weapons in those particular scenarios when the survival of the United Kingdom is not at stake—and it is these sorts of scenarios that we were talking about earlier on that matter. It is not the piece of paper, it is not the international law, but it is planning for what you are going to do in practical situations that we should take into account.

**Dr Willett:** Very quickly, any potential state or party that will threaten us with a nuclear weapon or other weapon of mass destruction potentially is putting our national survival at risk, and therefore saying this, like we did with refusing to rule out first use and substituting it with declarations of preparedness to go first et cetera are part of the credibility of deterrence. Deterrence is all about communicating a credible and capable threat and showing you have the intent to use it and you have to talk up your ability to do it to make your opponent think that you actually are serious.

**Robert Key:** Chairman, may I move on to tactical roles and first use of Trident?

**Chairman:** Could you make them very brief, please?

**Q183 Robert Key:** Certainly. Dr Stocker, you indicate in your written evidence that the White Paper makes only a passing reference to missile defence; what should it have said?

**Dr Stocker:** It could have said more, to say what current Government and MoD thinking is in this area because it is directly relevant to the debate about the nuclear deterrent. Noting that, our deterrence posture to date, as a legacy of the Cold War, has been based purely on the punishment element of deterrence and we have always eschewed deterrence by denial, which is another way of saying defence—in other words persuading somebody not to attack you because you can ward off the blow rather than because you will hit back in retaliation. Because of the decision announced yesterday by the Czech Government about a radar site for missile defence, that issue is going to well up in the political arena again, particular when it looks like Poland might become the site for missile interceptors in a European context. Missile defence, which has been quiet for three or four years, is going to be back on the political agenda and it is, strategically as well as politically, relevant to the current debate about nuclear deterrence.

**Q184 Mr Jenkin:** What impact does the recent Chinese missile strike on a satellite have in this debate and is it something we should consider?

**Dr Stocker:** Directly I am not sure it does have a major impact, other than in terms of demonstrating (a) a higher level of technical capability than many people may have assumed the Chinese have and (b) it demonstrates some of the dynamics of their deterrence relationship with the United States. Clearly, the Chinese are putting a lot of resources into having a multi-faceted deterrent against the United States in order to increase their freedom of action in their particular region and the ability to counter American, Space-based military systems would clearly be an important component of that deterrent capability.

**Q185 Mr Jenkin:** Making the world safer or less safe?

**Dr Stocker:** Undoubtedly, less safe.

**Q186 Robert Key:** Should the UK be developing tactical nuclear weapons. Dr Willett?

**Dr Willett:** No, the UK’s strategic deterrent is there as an ultimate capability to protect the nation under grave threat to its national survivability. Tactical nuclear weapons are not part of our inventory, they are not part of our thinking and they are not part of our reason for having a deterrent. We should also make sure that we see that there is a distinction between tactical and sub-strategic, they are not the same thing. Tactical effectively relates to battlefield nuclear weapons and sub-strategic is more of a policy designed to enhance the flexibility of the UK’s Trident system in a post-Cold War world, of course noting the points that have been made previously that any use of weapons, of course, can be seen as strategic. Tactical and sub-strategic are in my mind not the same thing, and it is important to note of course that our view on all this is very, very different from that of the US. The US has a different policy, different strategy, different capabilities and we should not be viewed as having the same views and developments as them.
Q187 Mr Holloway: Common sense would be both tactical and strategic: I mean tactical in the sense that you would be able to remove the item that is a threat to you; strategic in the sense that it sends an extremely clear message and it did so before, so it can be both.

Dr Willett: It absolutely can be both. The use of a service revolver can be strategic in the circumstances, but to use military terminology, tactical nuclear weapons are essentially the definition of battlefield nuclear weapons designed, in Cold War days, for example, to explode in Central Europe over a conventional conflict. A strategic nuclear weapon is what the UK has and that is not tactical in purpose.

Q188 Mr Holloway: But that does not mean that you cannot and perhaps should not have 0.7 kilos, much smaller weapons. They still have a strategic effect, do they not?

Dr Willett: This is where we start to get into the area of theory and why the UK has certain kinds of capabilities and why it does not. Yes, you could argue that to deter a threat to national survival you may need a smaller yield weapon that can take out another target without doing too much collateral damage et cetera, but the bottom line from the defence point of view though is that we have a capability that is designated to be a strategic capability, it is there as a policy tool and not as a battlefield/war-fighting weapon which is what tactical weapons are generally regarded as.

Chairman: I would like to move on to non-proliferation.

Q189 Robert Key: One very quick one, could I ask if any of our witnesses today think the White Paper should have had anything to say about first use?

Dr Stocker: Only to reiterate the earlier point that, as Sir Michael Quinlan pointed out, there are two dangers with that kind of policy. First of all, in extreme circumstances those declarations will count for nothing. Secondly, by ruling out certain options, in other words drawing lines in the sand, you potentially invite other people to step right up to the line in a way that if there was greater ambiguity, they might not step quite so far forward. Therefore, no first use is pretty unhelpful.

Q190 Robert Key: Professor Garwin, would you agree generally with that?

Professor Garwin: No, I would not.

Q191 Robert Key: I know you are a physicist, but you have come a long way and we want to get your wisdom.

Professor Garwin: That is right. I have studied first use, I have some papers with the National Academy of Science’s Committee on International Security and Arms Control which deal with this, the future of nuclear weapons in view of US nuclear weapons procurement. Particularly nuclear weapons procurement.

Q192 Mr Borrow: Can I perhaps move on to the non-proliferation and disarmament which we have touched on, on and off, so far during this session. Can I go initially perhaps to Dr Pullinger and Dr Stocker: we need to have your views on what should have been in the White Paper to do with non-proliferation. You both mentioned that it was not covered in the White Paper; therefore, what are your views on what should have been and how the UK policy would have been improved had there been something firm in the White Paper?

Dr Pullinger: As I said in my opening remarks, there should have been a more serious assessment of the potential dangers of a proliferated world and the threat that the non-proliferation regime is under. It is a question of degree and an appreciation of the problem that is not there. The United Kingdom has an excellent record on non-proliferation and arms control and the diplomatic effort that it puts into trying to stop other countries getting these things, putting controls onto the
materials and in terms of its own force posture it has done more than any of the other nuclear weapons states in terms of reducing the number of warheads and platforms and its fissile material—it does not make any more fissile material for weapons purposes. It has an extremely good record, therefore, and what I would like to see from the United Kingdom—ideally it should come from the United States and that is a possibility, that is something that Henry Kissinger and others called for a couple of weeks ago, that the United States takes leadership, it realises that we are on the edge of this nuclear precipice in a proliferated world but it is not in the strategic interests of the United States or any of us to reach that stage and therefore we have to do a lot more in terms of preventing it ever becoming reality. This has been written by MoD/FCO and in terms of the arms control and disarmament aspect there is not a lot you can criticise about it, but it is too complacent, it is going through the motions. Arms control is stuck and the only way we are going to get beyond that is if we have political leadership—and by that I mean at prime ministerial and presidential level—to say we have got to tackle this problem, and the only way we can do that is to get the other nuclear weapon states around the table and thrash out what I would call a new nuclear settlement and say where are we actually going with this? We are drifting towards a world in which we are all going to be far less secure so maybe we can try and go back to first principles and decide where we are going with nuclear weapon proliferation and how we are going to avoid getting there in a staged process of de-nuclearisation. We may not be able to get to global elimination of nuclear weapons, I have no idea, but we can go a lot further down that road and we can also rebuild an international consensus that that is where we are trying to get to, so we are pulling nuclear weapons back from the front line, we are putting them back in the cupboard, and eventually we may be able to get rid of them. Perhaps we will not be able to, perhaps we will have to have a hedge against a break-out to make sure that no state ever has the incentive to start developing nuclear weapons. I do not know what that scenario will look like, but we have to avoid that nightmare scenario of 20 or 30 nuclear weapon states in, say, 20 years time, which is a possibility and people are now recognising that.

because the Government could quite validly have spelled out that actually, done sensibly, deterrence and non-proliferation are not mutually exclusive, they are two tools designed to address exactly the same problem, namely proliferation. Whilst there is a certain tension inherent in having your own weapons while seeking to deny them to others, actually that tension is understood by most countries, they fully understand that it is normally in any country’s interest to have its own weapons and other people not to have them, and there is nothing unique about nuclear weapons in that sense. I am rather more optimistic on the non-proliferation front than many commentators have been. It looks like the number of nuclear powers is about to hit double figures with Iran, and of course North Korea’s recent partial test, but we have known about North Korea and Iran going nuclear for some years, we have been widely expecting it. Beyond Iran there are predictions of 15 or 20 nuclear powers, but we have had those predictions since the 1960s; beyond Iran, who is going to be the next one? There are no obvious candidates stacking up. There were two, Libya and Iraq, and in different ways they have been dealt with. There is not a next list of proliferators waiting to happen; that is not to say that further proliferation is not going to happen, and the crucial thing that the White Paper could have usefully said was one of the ways in which we prevent other countries going nuclear is through the extended deterrence that is provided to them by existing nuclear weapons states, principally the United States but also the UK. The UK in NATO doctrine—although it is not spelled out in the White Paper—the UK nuclear deterrent is a contribution to the deterrence posture of the alliance as a whole, and that of course provides a framework that allows countries like Germany, like Turkey, not to go nuclear because they are subject to an extended deterrence provided by others, and it is not only the United States. The White Paper, therefore, could have done more to actually spell out how deterrence and non-proliferation do actually work together towards the common end.

**Chairman: Dr Willett, we heard pretty much your view about this in our first inquiry, so do you mind if we move on—in the interests of time?**

**Q193 Mr Borrow:** Mr Stocker, do you agree with that and do you think that the UK could actually do something to get talks under way?

**Dr Stocker:** Broadly, I would agree with what Stephen said, but my main criticism about the White Paper and what it says about non-proliferation is largely presentation in that the White Paper talks about the options for the deterrent and then seems to tack on a series of perfectly valid statements about non-proliferation almost as though the Government felt it necessary to demonstrate its non-proliferation virtue in order to sweeten the bitter pill of nuclear renewal. Actually, I think that was a missed opportunity...
them would be in a very, very unique strategic circumstance, as the United States found out in 1945.

Mr Jenkin: That is very interesting, thank you.

Q195 Mr Borrow: Can I ask Mr Ingram how effective he thinks the non-proliferation treaty is and does he feel that the White Paper has a positive or negative impact?

Mr Ingram: To answer that directly, clearly I believe the White Paper has a negative impact because it will basically send a very clear message that supports the statement that has just been made, that while the Government in the White Paper itself and many times previously in its policy claims to have the objective of a nuclear weapon-free world, as is required under the non-proliferation treaty, to have that objective, whatever the time line, they do not believe in it. I also think that they do not believe in it; in fact, the White Paper itself says that “there would need to be compelling evidence that a nuclear threat to the UK’s vital interests would not re-emerge in the future before we responsibly could contemplate disarmament.” It says that in black and white. That, of course, is never, ever going to happen; there will never be 100% possibility that there will be proof that there will never be an emerging threat, so we do enter into the realm of the Government believing the scenario that Dr Stocker has just outlined. I am one of those analysts that believes that that is an unstable situation. Even if we only take Iran as an example, if Iran were to acquire nuclear weapons there would be tremendous pressure on Saudi Arabia, Egypt and a number of other regional powers to respond likewise and the pressures would grow. I do not believe personally that it is a stable situation if North Korea were to develop their nuclear arsenal and actually be able to deliver them into South Korea and beyond into Japan, and Japan to sit idly by and think well that is all fine, thank you very much. I do not believe that we exist today in a stable situation, and if the nuclear weapons states believe that they can continue along the route indefinitely that we have now, they will be sorely disappointed and we will enter into a very unstable world of nuclear proliferation. While it is very difficult to perceive the steps towards a nuclear weapon-free world—and I would agree it is difficult—I would challenge that it is impossible and I would say it is equally difficult if not even more implausible to believe that the current status quo will be maintained indefinitely into the future.

Mr Borrow: Can I just come back to you on that scenario?

Chairman: Can I interrupt and say we need to get the questions and the answers as short as possible now.

Q196 Mr Borrow: The statement was made earlier that of the five original nuclear powers the UK had been the best in terms of reducing the number of nuclear weapons and being pro-active in non-proliferation. The White Paper envisages a further reduction in the number of warheads, but there has been criticism of the UK for not being proactive in terms of getting further discussions. Do you accept that?

Mr Ingram: I accept that with the changes announced in the strategic defence review of 1998 and indeed the changes that were announced by the previous Government in the early Nineties, this nuclear weapons state is the best of a bad bunch. The trouble is, of course, that there have not been any changes since then and this announcement of a reduction from just under 200 to just under 160 warheads is almost irrelevant because we will still have 48 warheads out on patrol at any time, and we will continue to have this deployment until perhaps the 2050s. While we have a positive record up until this date, therefore, we are now planning to have pretty much a status quo into the indefinite future, which does not send the right signal, either to the other nuclear weapons states or indeed to any potential proliferators who may indeed interpret the statements we had earlier about status, about economic development and all the others and think yes, we would like some of that too and we do not feel it just to continue along the line. Just to finally finish, the argument that is put in the White Paper against that point is only legal on the NPT, which itself—I do not want to go into it—is contested. There is no political and there is no non-proliferation argument, I believe, against the idea that this is dangerous and sends a very bad signal to non-proliferators.

Mr Borrow: If I can put a question back to you that I asked at the meeting that we had last week, are you saying that the only way for the UK to go is to make a decision which effectively gets rid of nuclear weapons altogether, and if we were going to be one of the good guys in terms of reducing nuclear weapons and getting rid of proliferation, the only step we have got is to unilaterally get rid of nuclear weapons. I know you have said we do not need to make a decision—

Q197 Chairman: Let us have an answer to that. Mr Ingram.

Mr Ingram: My answer is simply that we need to defer the decision and—

Q198 Mr Borrow: Can I come in there? I have heard your argument that we can afford to defer a decision. In the scenario which is what the Government believes, that if we defer a decision as a country now then we are in effect unilaterally not replacing our existing nuclear weapons, and when the boats run out we will no longer have a platform and will no longer have a system, so effectively the decision would be made in the next few years—that is the belief of the Government and that is what the White Paper says. You may not accept that, but what I am saying is if what the Government is saying is correct, that we have to make a decision
Q199 Linda Gilroy: I wonder if I can ask what your reaction is to the assessment of the various deterrent options in the White Paper. Was it comprehensive, Dr Stocker?

Dr Stocker: Yes, it was and I do not think the answer that it came up with surprised many people; it is what the Americans would call a “no-brainer”. What was interesting was that amongst the four generic options the only really credible alternative to Trident was not examined, which would have been a submarine-launched cruise missile, but the White Paper elsewhere did compare cruise missiles with ballistic so it did cover that option, albeit in an indirect way. It is very difficult to fault the logic of the White Paper and I know that the MoD did look at a wider range of options before settling on those four main ones featured in the White Paper, so I am convinced that a pretty comprehensive study has been done, based on realistic assumptions and the conclusions are correct.

Q200 Linda Gilroy: When in your paper you said to us that the most credible alternative would be the submarine-launched cruise missile, you are satisfied with the comparison that is made in the annex that really says that on cost, effectiveness and on capability it really is not a comparison?

Dr Stocker: Indeed. In fact, as part of the original Trident procurement decisions, there was a study done by Chatham House in the late Seventies which did some quite detailed open source work, and it demonstrated then as an alternative to four or five Trident submarines, if you wanted cruise missiles fired from submarines you would need eleven submarines and 800 missiles. The figures probably do not exactly equate today but it indicates the order of magnitude of difference of capability as between cruise and ballistic.

Professor Garwin: It keeps me awake at night to think that the submarine base will be destroyed by a nuclear weapon, all the submarines that are in port, so a submarine at sea with survivability is a very good thing to have. But they are to survive, not to fire, and this question of 800 cruise missiles versus 50 D5s is not a matter of a deterrent, that is a matter of prompt strike. A submarine at sea could, within days or weeks, move to the shore where it wants to fire its cruise missile so if you are satisfied with the eventual response you do not need more cruise missiles than you need ballistic missiles. In that regard the White Paper is incorrect in saying any programme to develop and manufacture new cruise missiles will cost far more than retaining the Trident D5 missile. The UK could manufacture the Tomahawk, a perfectly good cruise missile; it would not need to do any development but it might have to get licences from the US manufacturer. But it did not want to do that, it wanted to rebuild the Trident submarines without thinking, it did not mention the small inter-continental range ballistic missiles, which is a good thing to do. The development costs are far less than for one of these multiple warhead missiles and would be reflected throughout the entire system.

Dr Willett: As Dr Stocker pointed out, we have gone round this buoy twice before with Polaris and with Trident first time round, and the issue with the cruise missile is discussed in detail in the White Paper, but the key issue of course is that not only can it be shot down, as the White Paper mentions, but then your warhead falls into the hands of whoever’s territory it happens to land on, and you cannot have that risk. The important point about the Tomahawk is that you cannot just take the current warhead and stick it into a Tomahawk, you would need a new warhead and a new missile because the airframe was designed only for conventional purposes and not as a deterrent weapon, and the problem is that it is just not fast enough. The interesting thing about the current decision though and going down the road in years to come is whether there is any possibility that the Government will look at options for multi-roling the submarine in terms of giving it a broader range of capabilities—D5 missiles, yes, perhaps with some intermediate range missiles, whether they are modified Trident or others, perhaps with some cruise missiles that have either nuclear or conventional warheads on them. The US has conventional Tomahawks in its Ohio class submarines so it can be done; the question of course is, is the strategic requirement and rationale there to do that, but that would potentially give the submarines a greater range of options.

Professor Garwin: I am sorry, that is not true. If you do not want your nuclear warhead unexploded to fall into other people’s hands then there is a well-established technology with insensitive high explosives or other explosives to explode the warhead—of course you disseminate the plutonium, but that does not matter, we did that at Palomares, and you clean up afterwards.
Q202 Linda Gilroy: Is not a more important issue in weighing up the pros and cons of this how it stands in relation to missile defence systems? **Professor Garwin:** Oh yes, that is a different point, but one should not adumbrate all of the arguments, some of them correct and some incorrect, so, yes. Tomahawk is not very vulnerable to missile defence but it could be countered by certain defences. When I inveighed against missile defence, it was only mid-course. Terminal defence is entirely possible, it is possible when you are defending individual silos, it is not easy to do when you are defending cities.

Q203 Chairman: I do not want to go into the various options. I just want to be sure that you believe that they have been sufficiently covered by the White Paper. Dr Pullinger, do you want to comment on that? **Dr Pullinger:** Yes, specifically on the choice of this platform which, looking from a non-proliferation perspective, helps to give us the most stable nuclear posture deployment. I would prefer to have designated platforms, which this system is, I do not want to have dual use platforms with nuclear and conventional that might get mixed up. **Chairman:** That is Dr Willett’s point.

Q204 Linda Gilroy: One of the issues that is raised about the submarine platform is the possible future developments in terms of transparency of the oceans. Do any of you have any observations to make on that area? **Dr Willett:** Very simply, people have been trying to do it for a long time and it has not happened yet. **Mr Ingram:** However, if we were to be in a position to delay this decision then that would be another advantage, we would be that much closer to the point at which we were deploying to be able to make exactly this decision in greater confidence that it would be still possible to hide a submarine and perhaps also to be able to deploy other missiles than the D5, for reasons already suggested.

Q205 Willie Rennie: Professor Garwin, could you just summarise quickly what the United States are doing in terms of their deterrent and what the significance of the reliable replacement warhead programme is in that deterrent? **Professor Garwin:** The United States continues to operate the three components of the deterrent: the aircraft, which has been downplayed in importance, the land-based missiles, mostly single-warhead missiles now, deployed in the vast spaces of the United States in silos and the Trident submarines. So they will continue to upgrade those. There is an initiative for conventional strike so that they could attack point targets, but it is very difficult to get the effects of nuclear weapons in destroying large targets. You can destroy a concrete silo with a conventional warhead, a shaped charge, delivered by one of these missiles, but it would be easy enough, as I said, to defend that silo by passive and active means. So this conventional strike has not yet been realised and there are problems that people will understand as they think more deeply about it. The United States Navy is confident that a prudently operated strategic submarine is invisible and essentially undetectable in any strategically important sense, so they are not worried about that. They spend a lot of effort to make sure that it is true and the US also spends a lot of effort to see whether they can compromise other people’s submarines. The Reliable Replacement Warhead is a programme which was generated a few years ago; it may or may not go forward. Its purpose is to be able to build new-design warheads under a comprehensive test ban treaty without testing them, and not for new military missions but to replace the current warheads if they deteriorate. It has just recently been announced in November by the National Nuclear Security Agency that the metallic component of our two-stage warheads—the so-called “pit”, containing plutonium, surrounded by metal—has a life of at least 85 years, probably more than 100 years. The previous official estimate was 45 years—I mention this in my testimony—and this has a great influence on whether you need a so-called reliable replacement warhead or not because all of the other parts of a nuclear weapon are testable and replaceable apart from the pit and you just reuse the pip while you substitute new electronics, new neutron generators and new other things in the nuclear weapon of existing design. So Reliable Replacement Warhead is a programme for maintaining skills, nuclear designer skills, in case the comprehensive test ban treaty vanishes or in case we do need to make new-design nuclear weapons, but it is not essential for the preservation of the deterrent and the National Nuclear Security Agency has also said that. **Chairman:** That is helpful, thank you. I would like to move on, very briefly, to the costs question. **Willie Rennie:** In the White Paper it says that the cost would be in the region of £15–£20 billion and that would be a price worth paying. First of all, do you agree that that is an accurate estimate and, second of all, when would it not be a price worth paying?

Q206 Chairman: Can we leave that second question because I think we have got a general impression from each of the witnesses as to what their view is about the worth of it, but I would like to know whether they accept that money estimates, please. **Dr Willett:** There is a very interesting point made in the White Paper. The £15–£20 billion of course looks at the upfront acquisition costs and what we need to try and understand here is not only how much it costs to buy it but how much it costs to run it through life as well for the 50 years. The very interesting point that the White Paper raises is that it makes reference to the running costs being between 5 and 6% of the defence budget, and that figure is a very important one because it requires
some considerable clarification as to what it means, because it contrasts previous statements which detailed the running costs as being between 2 and 4%. If you use the 2 and 4% example as your baseline, then based on the calculations that we did at the previous Trident programme the whole programme costs come in at around £25 billion over the whole life, which is in keeping with previous statements, and one could argue that on that basis, if you are looking to reduce the number of submarines, reduce the numbers of missiles, the numbers of warheads and that you have a blueprint for doing everything as you have done before, you actually could do it for less than last time, but the issue of the 5 to 6% of the defence budget is a very interesting one because it is somewhat new, so I would be looking for the MoD to explain in coming weeks what that 5 or 6% actually consists of and what that therefore means to what the likely overall costs would be, because that is somewhat different from what has been said in the past in my understanding.

Q207 Willie Rennie: Do you think the 5 to 6% is in addition to the £15–£20 billion?
Dr Willett: It is, yes. In my understanding it would be £15–£20 billion although of course that is based on four submarines and probably a worst case scenario because politically it would be unacceptable to get this one wrong. Of course, in the past it is very important to note that both Polaris and Trident the first time round came in on time and on cost so there perhaps may be some fat in the estimate to ensure that the MoD does come in under budget—understandably, given the flak that it may generate. One could argue that that £15–£20 billion could be reduced, but the issue of the running costs through life is one that requires further clarification.

Q208 Chairman: Dr Stocker, do you have anything to add?

Dr Stocker: I was just going to clarify that the surprising thing about the costs is the big price ticket put on the four submarines, which is approximately double the cost of the Vanguards at 2005 prices. Allowing for some cost escalation, that is surprising. The four Vanguards came in a little under £6 billion and the Government is reckoning on double that. That may to some extent reflect the bitter experience with the Astute programme and the fact that as we have a much smaller submarine force each individual boat is going to cost more, but even so that doubling of costs of the platforms is surprising and it might be helpful to get clarification from the MoD on why the submarines are projected to cost as much as they are budgeted.

Mr Ingram: It is not quite double but it is almost, and that actually reflects previous experience where the Trident cost double Polaris and the Trident costs in today’s prices were £15 billion. I think it could well be a reasonable estimate today, but as with so many things—Olympics, Domes and things like this—things do go up in price, so it could easily be more than £20 billion for the acquisition, and as has already been said you have also got the running costs, so this is where you are getting estimates of £76 billion or whatever, which is not a particularly helpful figure because money depends on when you spend it, how you spend it, if we do not have £76 billion that we could spend elsewhere if we did not spend it on Trident today. It is very difficult, but I would say that £15–£20 billion—you can probably go under, you can have arguments in favour of going over. If you were simply to purchase four Vanguard class submarines as I was hinting at earlier today it would be considerably less than £15 billion, but that is not the option that we are being given today. There are choices that we could make to reduce that cost, but we are not going to do so for some reason.

Chairman: That is it for this morning. Can I say thank you very much indeed to all the witnesses, particularly, if I may say so, to Professor Garwin for coming such a long way to help another country with decisions that are very important to us; we are most grateful. We are most grateful to all of you, however.
Tuesday 30 January 2007

Members present:

Mr James Arbuthnot, in the Chair

Mr David S Borrow
Linda Gilroy
Mr David Hamilton
Mr Dai Havard
Mr Adam Holloway

Professor Nick Grief
Mr Brian Jenkins
Mr Kevan Jones
Mr Robert Key
John Smith

Witnesses: Professor Christopher Greenwood QC, Professor of International Law, London School of Economics, Professor Nick Grief, Bournemouth University, Professor Steven Haines, Professor of Strategy and the Law of Military Operations, Royal Holloway College, University of London, and Professor Philippe Sands QC, Professor of International Law at the London School of Economics, gave evidence.

Q209 Chairman: Good morning. Welcome to this session on the Strategic Nuclear Deterrent. We are going to be concentrating on the legal and Treaty aspects of the decision to renew the deterrent that is proposed to us by the Government’s White Paper. The intention of this inquiry is to help the public debate. To our witnesses this morning, could I ask you to pitch your answers, please, in the knowledge that you will be speaking not to lawyers but to the public and also Members of Parliament who will not have your legal expertise. If you would bear that in mind I should be most grateful. Could I ask you to begin by introducing yourselves, saying what your background is very briefly and giving just two sentences on what your reaction is to the Government’s White Paper. Could I begin with Professor Greenwood.

Professor Greenwood: Thank you very much, Chairman. I am Christopher Greenwood. I am Professor of International Law at the London School of Economics and I am a barrister practising international law in both the English courts and international tribunals. I have specialised in relation to matters relating to the laws of war for most of my academic career. My two line reaction to the White Paper is that it is exactly the same as Christopher’s. I do not believe there is any problem with the proposal in the White Paper of a legal nature and, indeed, I think the proposal is both appropriate and expected given the history of Trident.

Professor Sands: My name is Philippe Sands. I am Professor of Law at University College London and, like some of my other colleagues, a practising barrister at Matrix Chambers. My area of expertise is general international law and, with at least one other member of this panel, I participated in the proceedings before the International Court of Justice on the Advisory Opinion on the legality of the use of nuclear weapons. My reaction to the White Paper is perhaps slightly more nuanced. It has certain positive elements but there is one aspect that I think is of concern and that is the apparent extension of deterrence theory into areas related to terrorism which may be of a non-nuclear character and that does raise to my mind issues in relation to the Treaty on Non-Proliferation of Nuclear Weapons.

Chairman: Thank you. We will start with Brian Jenkins.

Q210 Mr Jenkins: It could be argued given the differences of legal aspects, and we have got differences from the start this morning obviously, the legal aspects should not be decisive in any parliamentary debate at all. How would you respond to that?

Professor Greenwood: I agree with you entirely, the legal aspects should not be decisive in any parliamentary debate at all. How would you respond to that?

Professor Haines: Thank you, Chairman. My name is Steven Haines. I am Professor of Strategy and Military Operations at the Royal Holloway College, one of the University of London Colleges. Until three years ago I was a serving naval officer working in the Central Policy Staff in the Ministry of Defence. As well as being an academic lawyer specialising in military operational law, I also wrote the UK Government’s current strategic doctrine and worked as a legal adviser in my last appointment in the MoD until September 2003. My reaction to the White Paper is exactly the same as Christopher’s. I do not believe there is any problem with the proposal in the White Paper of a legal nature and, indeed, I think the proposal is both appropriate and expected given the history of Trident.

Professor Grief: Thank you, Chairman. I am Nick Grief, Steel Raymond Professor of Law at Bournemouth University. I have been at Bournemouth for about nine years. I specialise in public international law and human rights. I also practise as a barrister from Doughty Street Chambers here in London. My reaction to the White Paper is almost diametrically opposed to Christopher’s. I do see issues under the Non-Proliferation Treaty and also under international humanitarian law.

Professor Haines: Thank you, Chairman. My name is Steven Haines. I am Professor of Strategy and Military Operations at the Royal Holloway College, one of the University of London Colleges. Until three years ago I was a serving naval officer working in the Central Policy Staff in the Ministry of Defence. As well as being an academic lawyer specialising in military operational law, I also wrote the UK Government’s current strategic doctrine and worked as a legal adviser in my last appointment in the MoD until September 2003. My reaction to the White Paper is exactly the same as Christopher’s. I do not believe there is any problem with the proposal in the White Paper of a legal nature and, indeed, I think the proposal is both appropriate and expected given the history of Trident.
Professor Grief: My reaction to the question is to recall what I think the Director of Public Prosecutions said recently about the response to the so-called “war on terror”. I think he said words to the effect that “a fear-driven and inappropriate response to the war on terror could lead to our abandoning values which are critical to the maintenance of the rule of law”. I see direct parallels between that context and the present one. I am very concerned that we might indeed abandon some of those essential values.

Professor Haines: My reaction is that given I do not believe the proposal in the White Paper is in any way unlawful, the issue of whether or not we should go down the route that the Government is suggesting is entirely a policy decision.

Professor Sands: You cannot separate out legal and political considerations, they are closely interrelated in all things but here in particular. My concern here is to the extent that the White Paper signals an extension of nuclear deterrent into what it calls “unforeseeable future circumstances concerning terrorism, state-sponsored terrorism and other related issues”, you open a door to the argument of illegality and that will be seized on by others who may themselves be engaged in activities which are not consistent with their obligations under the Treaty on Non-Proliferation of Nuclear Weapons. What I am thinking of in particular is the situation right now in Iran where those concerned will be looking very closely at the position of governments like the United Kingdom in order to perhaps assist themselves find wiggle-room out of their own commitments. That is the area where I think I have some concern.

Q211 Mr Jenkins: The difficulty we have got is if we had four engineers they might come up with the same answer but four lawyers come up with different answers and you particularly, Professor Sands, extended that. I would like to ask you do you believe Iran will stop their programme of nuclear weapons? Professor Sands: No, of course I do not for a moment believe that what the United Kingdom does next month will have that type of decisive effect, but to the extent that we allow wiggle-room it will allow others with different views to open the door. My concern here is that by taking this decision at this moment in this particular way you send a signal out to others who may also want to adopt a different approach to their obligations under the Treaty.

Q212 John Smith: What do you mean by “in this particular way”? Professor Sands: What I am concerned about in the White Paper is that there appears to be a move away from the traditional doctrine of using the nuclear deterrent to respond to wholly and exclusively nuclear threats. There is language in the White Paper which does open the door to the possibility that terrorism in other parts of the world could justify the renewal or the extension of Trident. That is the particular concern that I have, that right at this moment using the very real terrorist threat that we now face as a justification for extending the nuclear deterrent could be seized on by others in a particular way.

Mr Jenkins: I want to ask a general question about whether we all agree about the role of international law. Does it have the same status as domestic law or does international law tend to get corroded by events, if I can put it that way? Does the difference of opinion on the particular matters we are discussing reflect the difference of interpretation of the role of international law?

Q213 Chairman: That is a huge question. Who would like to begin?

Professor Greenwood: First of all, no, international law is not the same as domestic law, in particular in the sense that you cannot go to a court in this country to enforce most rules of international law in the same way you can rules of English law. I do not think there would be any difference between the four of us that international law is law, that it is legally binding on states and that the Non-Proliferation Treaty and the rules of international law relating to the use of weapons are binding on this country. The Government accepted that proposition unequivocally in the nuclear weapons proceedings in the ICJ 10 years ago.

Q214 Chairman: Any difference of opinion there?

Professor Haines: None at all.

Q215 Chairman: The US Government would not accept it.

Professor Greenwood: The US Government accepted exactly the same proposition I have just put in terms in nuclear weapons proceedings in 1995–96.

Q216 Mr Jones: In a previous life I read umpteen, hundreds of barristers’ opinions and I know if you ask four barristers what colour a red car is you will get four different answers; if you pay enough you will get someone to tell you it is white. Professor Sands, you gave the example in terms of Iran, to what extent is that moving away from the legal side of it into the realms of politics, the point that Brian Jenkins was making?

Professor Sands: The answer that I gave to the previous question was I do not think you can separate out the two. We have a situation right now in Iran which we are all extremely attentive to that here you have a country that is a party to the Treaty that appears to be in the process of, or on the verge of, violating its obligations. We need to be able to go to that country with our allies and other members of the international community and say, “You cannot act in this way”. In order to be able to do that we need to be absolutely certain that we are fully meeting our own obligations. It is a simple point that I make and I do not take it any further than that but...
I do not believe you can separate out the legal and the political and right at this moment those connections are important.

**Q217 Mr Jones:** Does that not depend on you using the same legal framework to judge what they are doing and what we are doing and every time you interpret this piece of law using that same framework all the time otherwise you are going to get different answers to different questions, ie that the red car might be white?

**Professor Sands:** Ultimately it turns on the point that Professor Greenwood made, that it depends who the decision-maker is. These issues are not going to come before the English courts, they may or may not come before an international court, but at some point they may reach a particular decision-making body. The International Atomic Energy Agency has a particular role to play in these issues and we know, for example, that the former Director General of the IAEA, Dr Blix, has taken the view that Britain’s decision in relation to the renewal of Trident appears not to be consistent with Article VI of the 1968 Treaty. When you get someone of his authority expressing that view—

**Mr Jones:** I have met Dr Blix on a couple of occasions and he is into the realm of now selling books more than trying to give legal opinions.

**Q218 Chairman:** Selling books is an honourable thing to do. Professor Greenwood, you were shaking your head at what Professor Sands was saying.

**Professor Greenwood:** I was also wondering whether I could make a bid for selling a book! I do actually disagree quite profoundly with Philippe about this and it is a disagreement that goes much wider than the nuclear weapons issue. I think it is vitally important that as an international lawyer you explain to a client, or in this case to a parliamentary committee, what you think the international law on the subject is. We are not the best qualified people, frankly, to speculate about whether Iran would react in one way or another, that is a judgment where if you need expert evidence you will take it from a strategist, but the decision is a political one. I do not think it is right to allow one’s approach to political questions to colour one’s answers about the law.

**Chairman:** Thank you. I want to move on to a slightly different question now.

**Q219 Linda Gilroy:** The White Paper proposes to replace the Vanguard-class submarines, not the Trident missiles, and so arguably merely maintains, rather than replaces, the deterrent. Philippe Sands has outlined one concern from the White Paper which goes beyond that. Do any of the rest of you have any issues which would take us into realms beyond that statement I have just made?

**Professor Grief:** I have concerns that even to maintain the deterrent raises issues under Article VI of the Non-Proliferation Treaty which requires the United Kingdom to negotiate in good faith towards nuclear disarmament. That obligation to negotiate in good faith was emphasised by the International Court in its Advisory Opinion in 1996. The Article VI obligation is elaborated upon by agreements reached at the end of the 2000 NPT Review Conference that states parties agreed on a number of practical steps and one of those would commit them to a decreasing reliance upon nuclear weapons in their security policies.

**Q220 Chairman:** Would you agree, Professor Grief, that the replacement of the submarines as such would not be an illegal act?

**Professor Grief:** I think I could probably agree that replacement as such but—

**Q221 Chairman:** It is the maintenance of the deterrent that is causing you concern?

**Professor Grief:** My problem is the maintenance of the deterrent and the fact that I do not see sufficient evidence in the White Paper of movement on the part of the Government in the direction of nuclear disarmament and, therefore, in the direction of fulfilling the obligations of Article VI.

**Q222 Mr Hamilton:** I listened to that answer and to many people outside they would be rather concerned that there are people who actually oppose the continuation of the nuclear deterrent. There is a compromise in many people’s eyes and that would be to go ahead with Vanguard which would allow the lifetime of the nuclear deterrent to continue, but what you are saying is even that would be wrong. That does not conflict with Article VI, as I understand it. Article VI talks about the extension of nuclear deterrence, indeed the renewal of nuclear deterrence would not be wrong. If you extend nuclear submarines, which allows you to maintain what you have already got, there is a conflict.

**Professor Grief:** With respect, I would disagree because Article VI does require the states parties to pursue negotiations in good faith towards nuclear disarmament. The practical steps that I mentioned earlier that were agreed by the states parties in 2000 are not simply political commitments, they are in themselves legal undertakings and they are part of the context in which we must interpret Article VI of the Treaty. In my opinion they constitute a subsequent agreement by the parties to the Treaty regarding the interpretation and application of Article VI of the Treaty and, therefore, the Article VI obligation to pursue and conclude negotiations in good faith is elaborated upon by these practical steps, which include reducing your reliance on—

**Chairman:** We will come on to that.

**Q223 John Smith:** Is a substantial reduction in the number of warheads an indication of good faith? The White Paper pointed in the direction of the possibility of the reduction of platforms from four to three.

**Professor Grief:** I think those things are steps in the right direction, particularly if they were to happen within a reasonably short period of time. I would
like to see as a matter of good faith compliance with Article VI more concrete steps, one suggestion being—

Q224 John Smith: I am not really asking that. I am asking whether you think those proposals in the White Paper do comply with our obligations in terms of good faith, not what additional ones there should be.

Professor Grief: They are steps in the right direction.

Q225 Mr Borrow: Could I ask, just following up on that, would you say that the other four major nuclear powers are also in breach of Article VI or are there any signs that any of the four are taking material steps to disarm or enter into reasonable negotiations?

Professor Grief: I think I would have to say that I do not know enough about their policies except rather superficially and, therefore, I am reluctant to comment in this context on their compliance or non-compliance.

Q226 Mr Borrow: Presumably if the UK, in your judgment, is not complying by not negotiating you would need to know whether the other parties were serious about negotiating before you made a judgment on the good faith of the UK Government.

Professor Grief: Yes, I think that is a fair comment.¹

Q227 Mr Borrow: You do not know that so you cannot give us that judgment.

Professor Grief: I do not know enough.

Q228 Chairman: If you had the feeling that the UK was actually doing better than other countries but was still in breach of its own obligation then it would have to follow, would it not, that the other countries were in breach of their obligations?

Professor Grief: Yes, I think that would follow.

Q229 Linda Gilroy: In that respect can you reference for us any discussion about what a minimum deterrent consists of? Would you agree that of all the parties to the NPT and the Permanent Members on the Security Council Britain has done more than most and in the White Paper it says that we have something like 1% or 2% of the world’s nuclear arsenal? Is there a debate legally about that? Is there not a case to be made that having established that as a benchmark it would be our duty to retain a minimum deterrent, to stay on the Security Council and to try and draw others to that benchmark?

Professor Grief: I think there is everything to be said in many ways the legal issue from the strategic backdrop.

Chairman: I think there was a difference of opinion between those who felt that the White Paper was perfectly lawful as I read them, therefore it was a political decision to be made. You cannot extract in many ways the legal issue from the strategic backdrop.

Professor Haines: Legally they are weapons whether they are strategic or tactical. Clearly there are a number of legal rules that weapons systems need to be deployed within the parameters of those rules. The difference between strategic and tactical is, for a start we do not have any tactical weapons these days but when we did have them, of course, they were likely to be used in very different circumstances from the use of strategic systems. For example, a nuclear depth bomb in the east Atlantic would not have the same impact on civilian populations as a weapon released on land.

Q231 Mr Jones: Can I pull us back on to the legal issues. Can you just explain what the current legal restrictions are around the UK’s possession of nuclear weapons? Is there any difference between the possession of strategic nuclear weapons and tactical nuclear weapons from a legal point of view?

Professor Haines: Legally they are weapons whether they are strategic or tactical. Clearly there are a number of legal rules that weapons systems need to be deployed within the parameters of those rules. The difference between strategic and tactical is, for a start we do not have any tactical weapons these days but when we did have them, of course, they were likely to be used in very different circumstances from the use of strategic systems. For example, a nuclear depth bomb in the east Atlantic would not have the same impact on civilian populations as a weapon released on land.

Q232 Chairman: Can I stop you there, Professor Haines. We are distinguishing between possession of nuclear weapons and the use of them.

¹ But while the search for nuclear disarmament clearly necessitates the co-operation of all states, each of the parties to the Non-Proliferation Treaty remains under an obligation to pursue negotiations on the matter in good faith.

² Using a more basic delivery system. In other words, reverting to a threshold nuclear weapon status.
**Professor Haines:** Indeed.

**Q233 Chairman:** Is the possession of strategic or—

**Professor Haines:** No, not at all. Indeed, if you go to the Non-Proliferation Treaty, which others are referring to, of course, it states quite clearly in there that there are nuclear weapon states recognised and they are the states that have tested a nuclear device before 1967. Possession of nuclear weapons is recognised as lawful and legitimate in Treaty law in any case. On the question about Article VI of the NPT which Professor Grief has been going on about, I take a completely different view on that and I think what the Government is proposing is entirely consistent with the Article VI obligation to in good faith move in that general direction and, as he admitted, that is a move in the right direction but there is nothing in the NPT that says we have to give them up in a unilateral sense.

**Q234 Mr Jones:** In terms of the current restrictions, what are they? “Good faith” has been bandied about but what is the legal definition of “good faith”? I have no doubt I am going to get umpteen different answers on that. What is your understanding of it in terms of this?

**Professor Haines:** It does seem to me that if you are talking about the reduction of nuclear systems, which I would be very, very happy to see, I think there are far too many of them around, one thing one has to recognise is that this is a very sensitive area and you cannot go into this business adopting a unilateral position, it has to be through the process of negotiation. I see in the White Paper proposals for the extension of the Trident programme but a reduction in the Trident programme as sending out a reasonable signal that the Government is prepared to reduce and move in that direction. I think it would be useful if perhaps a wee bit more effort was put into encouraging the development of some sort of international negotiation over levels of possession and I have said as much to people in Government, that I think they should follow this up with some effort of a diplomatic nature to encourage negotiations also consistent with Article VI of the NPT. The current position in the White Paper itself is not, as far as I am concerned, in any way in contravention of Article VI of the NPT.

**Professor Grief:** Could I just come in on the definition of “good faith”. I think one generally acceptable definition would be doing nothing which would render fulfilment of the Treaty obligation remote, ie unlikely, or impossible; more remote or impossible.

**Q235 Chairman:** That is an example rather than a definition.

**Professor Grief:** I would go back to my earlier remarks about—

**Q236 Chairman:** Could you describe in legal terms what “in good faith” means?

**Professor Grief:** In terms of Article VI and the duty to negotiate in good faith I think it means not negotiating from an entrenched position, negotiating sincerely towards the objective that is enshrined within the Treaty, namely nuclear disarmament, and doing nothing which would be likely to render fulfilment of that obligation remote or impossible.

**Q237 Mr Jones:** Is this not meeting that in the sense that you will have a reduction in the number of submarines and the number of boats and, therefore, rather than contrary to that good faith this is a move in that direction?

**Professor Grief:** I agree, it is a step in that direction, yes.

**Professor Greenwood:** Might I just offer one comment about good faith. The duty under Article VI is to negotiate in good faith, it is a duty on all parties to the Treaty and it is a duty to negotiate to try and achieve three results and we have only focused on one: early cessation of the nuclear arms race, nuclear disarmament, and general and complete disarmament under strict and effective international control. It is very much built around the idea of a negotiating process to achieve a comprehensive agreed result. I cannot see any obligation in that that comes anywhere near unilateral disarmament. It is worth just mentioning, if I may, that the International Court two years after its opinion on nuclear weapons said about the principle of good faith that while it was immensely important “it is not in itself a source of obligation where none would otherwise exist”. I think there is a danger of losing sight of that in the way in which people recite that particular extract from Article VI as though it is the answer to everything.

**Linda Gilroy:** On that point, which I was going to raise, that there is more to Article VI than just nuclear disarmament, it is about cessation of the nuclear arms race, it is about the Treaty on general and complete disarmament under strict and effective control. To come back to the point I made about the minimum deterrent and the definition on it, an observation I would put into the melting pot is that I find it surprising that is not a part of the legal debate about this issue because if you can begin to structure a debate around that then you can facilitate those processes that Christopher Greenwood has just described in a way that we have not got the language and the framework to do at the moment.

**Q238 Mr Holloway:** Professor Grief, if one argues that it is illegal for us to have a next generation could you therefore argue that the Treaty was dead and that people like Iran are perfectly justified in producing their own weapons?

**Professor Grief:** The Nuclear Non-Proliferation Treaty was dead?

**Chairman:** I think I would prefer to get on to the NPT later during the course of the hearing. Could you join in then with your questions? Dai Havard.
Mr Havard: I am sorry I was late. My understanding of what has been said is that there is no international law which prohibits the possession of nuclear weapons. There are certain states that have themselves combined together in a Treaty form to decide what to do about proliferation and possible disarmament. Britain is one of those and, therefore, may have obligations in that debate, but as far as international law is concerned there is no law that stops possession. So all those people that are not signatories to the Treaty have no obligations to negotiate about anything. We are a bit like China and Iran with nuclear power here, are we?

Professor Haines: Strictly speaking that is correct. North Korea, I suppose, is the obvious example of a state that is outside the NPT regime and it is not banned by that regime, therefore, from possessing nuclear weapons.

Chairman: Can you give us some examples of those states which are outside the NPT regime?

Professor Haines: North Korea is outside the NPT regime, Pakistan is outside the NPT regime, as indeed are India and Israel.

Chairman: Professor Grief, you were disagreeing.

Professor Grief: Yes. I wanted to come in, if permitted, on this question of possession because I have to disagree with Steven that the NPT somehow allows the United Kingdom to have nuclear weapons. It is quite true, as Steven has said, that the NPT in Article IX defines a nuclear weapon state as a state which exploded a nuclear weapon or other nuclear device before 1 January 1967 but Article IX actually says that is a definition for the purposes of the Treaty and only for the purposes of the Treaty. I am sorry to use this word again but it seems to me that it is not good faith interpretation of the Treaty to suggest that it somehow authorises states to have nuclear weapons. The other point I wish to make is that we do not simply possess nuclear weapons in any event.

Chairman: No, of course that is true. In a moment we will get on to the threat of use.

Professor Grief: I was simply going to say that, therefore, the rules regarding use of force and the conduct of hostilities are relevant here. I would disagree with Steven that the NPT somehow allows the United Kingdom to have nuclear weapons. It is quite true, as Steven has said, that the NPT in Article IX defines a nuclear weapon state as a state which exploded a nuclear weapon or other nuclear device before 1 January 1967 but Article IX actually says that is a definition for the purposes of the Treaty and only for the purposes of the Treaty.

Chairman: Are we all agreed on what the IJC said?

Professor Grief: Probably not.

Professor Haines: Agreed in the sense that the words on the paper were clearly agreed to.

Professor Greenwood: It was a seven votes each way Advisory Opinion given on the casting vote of the President. Of the seven who wrote dissenting opinions three thought that the Court should have decided that there were circumstances, although unspecified, in which they could lawfully be used; and the seventh thought the Court should not have answered the question put to it in the first place. One might perhaps have some sympathy with that view. Yes, the Court’s opinion plainly leaves open the possibility that nuclear weapons can lawfully be used in extreme cases of self-defence where the survival of a state is at stake.

Mr Jones: Can I just turn that back round a little and ask you where does it say, therefore, that it is illegal for the UK to have nuclear weapons?

Professor Grief: Where does it say that it is lawful for the UK?

Mr Jones: No, that it is illegal.

Professor Grief: It does not, I have to admit. It does not in so many words but there are cardinal principles of international humanitarian law, I think, about which we would all agree in terms of their existence at least, perhaps not about their interpretation and application. By applying those principles to what we know about these weapons and realistic military scenarios of use then I think it is possible to conclude that—

Chairman: We are perhaps making an artificial distinction here between possession and use. We need to move on to the issue of use.

Robert Key: Chairman, can we see if we can get our witnesses to agree on this: under what circumstances is the use of nuclear weapons lawful?

Chairman: Professor Sands, would you like to begin?

Professor Sands: Perhaps the easiest place to start is with the Advisory Opinion of the International Court of Justice which gave an Advisory Opinion in 1996. It plainly left open the possibility that certain uses of nuclear weapons could indeed be lawful. It did not clearly specify the circumstances in which such use would be lawful but it indicated, at least a majority indicated, that the use could be lawful in circumstances in which the very survival of a state was at stake. That is one view of what the Advisory Opinion actually says. In my view it is clear that the use of a nuclear weapon which does not affect the global environment or civilians, is able to distinguish between combatants and non-combatants, would not raise difficulties in international law but, of course, the very nature of nuclear weapons makes those criteria very difficult to be fulfilled. I do not think I can give greater clarity than the International Court of Justice gave on the issue.

Robert Key: Are we all agreed on what the IJC said?

Professor Grief: Probably not.

Professor Haines: Agreed in the sense that the words on the paper were clearly agreed to.

Professor Greenwood: It was a seven votes each way Advisory Opinion given on the casting vote of the President. Of the seven who wrote dissenting opinions three thought that the Court should have decided that there were circumstances, although unspecified, in which they could lawfully be used; and the seventh thought the Court should not have answered the question put to it in the first place. One might perhaps have some sympathy with that view. Yes, the Court’s opinion plainly leaves open the possibility that nuclear weapons can lawfully be used in extreme cases of self-defence where the survival of a state is at stake.

Robert Key: Thank you. Let us try this one: is there a legal difference between the threat of use of nuclear weapons and their actual use?

Professor Haines: Can I answer this in a sort of roundabout way which will involve some mention of strategic thinking. My answer to your question about use, and something I wrote earlier about this, is that nuclear weapons are used in different ways. There is the actual physical use, which is essentially what you have been talking about, but I see them as having been used very effectively over a number of
years to maintain strategic balance and to maintain a situation in which we have for 60 years or so not had great power war. The importance of deterrence is absolutely central to this. The use of those weapons, their use as a deployed system that is capable of maintaining that arrangement, seems to me to be a perfectly lawful use. Indeed, one could argue that in self-defence terms it is the only way of ensuring your own defence if you face the possibility of a threat from another power with weapons of that type.

Q248 Robert Key: So you are saying that to deploy nuclear weapons is to use them but not necessarily to explode them?

Professor Haines: Absolutely right. That is my belief. My feeling is that these weapons are currently being used this very day. There is a debate now as a result of the end of the Cold War as to exactly what it is that they are deterring, and we can get into a discussion about that that is probably not appropriate at this session. The use of those systems over many, many years has been to maintain that balance between states that hold those weapons. I am perfectly happy that that is a perfectly lawful use of the systems.

Q249 Chairman: Professor Haines, would you say that the threat of firing an illegal weapon is a legal thing to do?

Professor Haines: No, but I am not saying that nuclear weapons are illegal.

Q250 Chairman: You are not. You are avoiding that question, are you not?

Professor Haines: No. I am not avoiding it. I am saying in certain circumstances they are lawful, that the actual physical use of weapons of that nature would be lawful.

Professor Greenwood: Chairman, might I add something about threat. There is a danger that the use of terms here is becoming rather loose. To me the use of a nuclear weapon is exploding it, and that is certainly the way in which the term is used in the Advisory Opinion and in international law. A threat to use a nuclear weapon, however, has to be distinguished rather carefully from a deterrent. It is not a threat to use a nuclear weapon to say, “We have these weapons, if we were attacked in extreme circumstances of self-defence we would use them”

Q251 Robert Key: So is the deployment on our current submarine fleet of warheads a threat?

Professor Sands: No.

Professor Haines: No.

Professor Grief: I would disagree with that. I am sorry to do this. To me, deployment on the submarine is a threat because, to use the words of the International Court of Justice, there is a “signalled intention” to use the things if certain events occur, and that is a threat.

Professor Greenwood: Chairman, I disagree radically with that. If the weapons are not targeted on any state, and we are told that quite clearly, to possess a weapon is not a threat to use it because if that were true of nuclear weapons on a Vanguard submarine it would be equally true of any weapon possessed by any state at any time. Obviously you have them with a view to using them if you have to but the possession of them is completely different from the threat to use them.

Q252 Robert Key: Since you have mentioned it, could I just ask you this: does it make any difference that since 1998 in the Strategic Defence Review we have not targeted our warheads? Does it make any difference legally whether the weapons are pre-targeted?

Professor Greenwood: I think the fact that they are not pre-targeted makes it even more difficult to argue that they are a threat. In the particular circumstances of the Cold War even the fact that they were pre-targeted did not amount to a threat.

Q253 Robert Key: Do we agree about that?

Professor Sands: Not necessarily. The fact that they are not pre-targeted does not of itself mean that there is no threat. For example, when the Secretary of Defence tells the Government of Iraq, “If you use certain types of non-nuclear weapons of mass destruction we reserve our right”, some will construe that as a threat even though there was not pre-targeting.

Q254 Chairman: Professor Grief, if you are walking around with a rifle, is that a threat to use it?

Professor Grief: It could be according to the context, depending upon the circumstances, on what I might have said or what somebody does.

Q255 Chairman: But not as such, would you agree?

Professor Grief: Not necessarily as such, I agree.
Q256 Robert Key: Can I ask now does the United Nations Charter forbid either the use, or the threat of use, of nuclear weapons?

Professor Sands: No.

Professor Greenwood: It does not deal with any particular weapons system. It prohibits the threat or use of force with any weapons whatever save in certain rather narrowly defined categories.

Q257 Robert Key: Do we all agree?

Professor Haines: Yes.

Professor Sands: Professor Greenwood has stated absolutely correctly that there is no explicit reference to any form of weapon in the UN Charter, it addresses general rules that are applicable to nuclear and non-nuclear weapons alike.

Robert Key: Okay. I think I will quit while I am ahead, Chairman!

Q258 Linda Gilroy: In relation to that set of questions can I ask one about Continuous-at-Sea deterrence, which is the current way in which the deterrent operates. In the debate there is mention that we do not need to maintain that. If it changed so that it was not Continuous-at-Sea, would that in any of your views raise issues about the debate we have just had about use of the weapons, ie in order to use them you would need to threaten somebody specific presumably.

Professor Haines: There is one issue, of course, and it has always been the argument used to maintain Continuous-at-Sea deterrence, and that is the sailing of a boat in a time of crisis would send out a signal. That is a very valid comment for those in favour of Continuous-at-Sea deterrence to make. Personally I think that in the current circumstances it is not necessary to maintain a deterrent at sea at all times. Obviously I would differ from my erstwhile colleagues in the Ministry of Defence by saying that. In legal terms it does not seem to me to make any difference whatsoever, it is not a legal question, it is a policy question.

Q259 Mr Holloway: The Government has said that the UK's nuclear weapons will only ever be used in self-defence but they have never said that they would not go for first use. What difference does it make to the legal position if nuclear weapons are used in self-defence?

Professor Greenwood: To be lawful the use of any weapon has got to comply with two different bodies of law. It has got to comply with the UN Charter rules on whether it is lawful to use force and it has got to comply with the law of armed conflict which governs the way in which hostilities are conducted. If it were not used in self-defence and it were not used in one of the other rather narrow categories in which force is lawful under the UN Charter then it would be a breach of the Charter.

Professor Grief: I agree entirely with what Christopher has said.

Q260 Mr Jones: Hooray! That is a first.

Professor Grief: For the time being! In order to exercise the right of self-defence one has to comply with the conditions of necessity and proportionality and I focus in on proportionality and simply ask the question, could a nuclear weapon ever be a proportionate response. It possibly could, I am not ruling that out, but I think it is a question that needs to be asked given the question that has been put.

Q261 Mr Holloway: Could it extend to defence of our vital interests as opposed to our territorial survival?

Professor Grief: “Vital interests” is far too vague an expression. That is one of my concerns about the White Paper, that it talks about “vital interests” several times and “extreme circumstances” several times. To me those expressions are not sufficiently precise. I would go back to the Advisory Opinion where it seems to me the Court accepts that the only conceivable exception to the prohibition of use under international law is the in extremis scenario that it paints where the very survival of the state is at stake, but the President of the Court was at pains to stress that the Court was not thereby saying “it is therefore lawful to use nuclear weapons in extremis”.

Professor Greenwood: The President of the Court was one amongst the 14 judges and they had very different interpretations of what they had agreed and that was why it was such a finely balanced Advisory Opinion. They did expressly reject the argument that the use of nuclear weapons could never be proportionate for Charter purposes, so I think that is quite a useful starting point. I am beginning to sound as though I want to disagree with Professor Grief on principle about everything, and that is not the case, but one has to be rather cautious in reading that Advisory Opinion. It is also not confined to the survival of the state that has the nuclear weapon, the language is broad. For example, the use of nuclear weapons to prevent the destruction of an allied state or a state that we were seeking to protect, for example in 1991 the survival of Kuwait, that would come within the ambit of the Advisory Opinion as well.

Q262 Mr Holloway: You could argue that was a vital interest, could you not?

Professor Greenwood: Yes, but there are other British vital interests which would fall short of that, I accept that point.

Professor Sands: Mr Holloway’s question is a vital question that has been asked because it puts its finger right on an issue that is of concern and that is the apparent extension of the circumstances in which nuclear weapons could be used. If the Committee has a role to play it is in pushing the government on precisely what it means on that issue. That would be a very useful function for the Committee to play.

Q263 Chairman: Why do you say it is an extension?

Professor Sands: Because the door appears to be being opened to circumstances in which nuclear weapons could be used other than in that extreme
situation. That is why I have got some hesitation with this White Paper. That is the matter of concern for me. Taking that a little bit further, one can see a scenario where quite understandably, the mere replacement with a new class of submarines is not in itself problematic unless it is part of an implicit or not explicit programme of extending use in other directions. It is the language of the White Paper that does not squarely address that issue but hints in that direction. That is giving me pause for thought about the White Paper.

Q264 Mr Holloway: In that legal context where would you put Hiroshima and Nagasaki?

Professor Haines: In my view the use of nuclear weapons in those circumstances would not conform under today’s legal rules to the rules on international allow allowing the use of that type of weaponry in self-defence. But, of course, at the time they were used the United Nations Charter had not been adopted so the rules may have been different.

Q265 Mr Holloway: Is it self-defence if you go for first use?

Professor Greenwood: I think it could be self-defence. I do not think the fact that the weapon was used before any other nuclear weapon was used against you would necessarily take it outside the scope of self-defence. To fall within the limits of self-defence you would have to be the victim of the armed attack, actual or threatened. Secondly, your response would have to be proportionate. Obviously it is easier to show proportionality in a nuclear response to a nuclear attack but the NATO strategy for two decades was that if we were losing a conventional war in Europe and Warsaw Pact forces were over-running us then we would rely on our nuclear deterrent. In my view that would have been lawful within the terms of the UN Charter.

Professor Haines: I would agree entirely with that. The idea that nuclear weapons are just there to deter other nuclear weapons is profoundly false.

Q266 Chairman: In your memorandum you say: “It is not unreasonable to argue that the threat of the use of nuclear weapons should not be employed to counter a mere conventional threat for reasons of proportionality”.

Professor Haines: No, it is not unreasonable to make that statement, that is true.

Q267 Chairman: You do not agree with it?

Professor Haines: If there was a conventional threat of sufficient size and magnitude, as there was indeed in the context of the balance of forces in Europe, as far as I am concerned that would be perfectly acceptable. We were dealing then with a staged hierarchy of different systems. There were systems on the Central Front that could have been brought into play that would have taken us through the nuclear threshold which were very different from the sorts of weapons we are talking about in the context of the Trident debate. There was a process of escalation there and I was perfectly content with

that. I put in that written submission that I do not think it is unreasonable in current circumstances to say generally speaking nuclear weapons should be there to deter other nuclear weapons. For example, I do not believe that it would have been appropriate to use nuclear weapons against Iraq if they deployed chemical weapons if they had them three or four years ago. It is a question of judgment in the precise circumstances.

Q268 Mr Jenkin: This question of judgment in the precise circumstances is, I think, what becomes the most problematic question about this whole discussion—I compliment you on what is a fascinating discussion—but in the end you are wrestling with moral problems which any prime minister contemplating the use of weapons would have to wrestle with. Can I put it to you that if the prime minister of the day was satisfied that morally he had no alternative but to use a nuclear weapon and it was unquestionably in the national interest to use a nuclear weapon, difficult as these circumstances are to envisage, the questions of international legality become relegated. This is what I mean by the question that in the end international legality is too malleable a concept for us to set absolute store by because in the end the national interest of our country comes above any question of international legality. That is actually what the international law says in effect.

Professor Sands: I think there are a number of ways of addressing that issue. Firstly, contrary to the view expressed by a member of the other House, I do not believe there are circumstances in which the national interest outweighs the rule of law, including the rule of international law. You need to be guided by the rules of international law. As you have rightly said, there is always some malleability in the rules, they are open to interpretation and application, and a reasonable prime minister acting in good faith has a range of options. In the second part of your scenario unquestionably the national interest needs to be put on one side because there will always be debate on that, but on the main thrust of your issue if we have a situation in which a prime minister or anyone else start taking decisions of this kind on moral grounds you get yourself into precisely the kind of difficulty we are in now on another story.

Q269 Mr Jenkin: Except that the UN Charter was drafted by people trying to frame morality. The judges who contributed to the ICJ opinion are themselves human beings trying to frame a moral answer to a moral question, based on texts, agreed, but ultimately to elevate one group of people, ie lawyers, over the people who actually have the responsibility to Parliament, which is after all a sovereign institution, is more malleable than you might be comfortable with, but that is just an historical fact.

Professor Sands: I would simply say: you have the rule of law or you do not.
Q270 Mr Havard: Can I just pick up a point you were making, Professor Sands, about the possible extension, implicit or explicit, in the White Paper. Can I understand that a little bit better? Currently the nuclear deterrent we have is deployed on these boats in the North Atlantic or in the Atlantic. Are you saying that the White Paper then opens this up? What is your worry, that they are going to be sent out to the Pacific somewhere, that their extension of use is allowed in it? What are you saying there?

Professor Sands: I am very grateful for that question because, with great regret, I have learned with this Government to treat words on a paper or words in Parliament with very great caution. I turn to paragraph 3.5 with the heading entitled “Ensuring against an uncertain future”. Sections 3.11 and 3.12 are state-sponsored terrorism. Just pause there and ask yourself the question: what has that got to do with the narrow constraints of the use of nuclear weapons in circumstances in which traditionally the context in which they were going to be used has been very narrow. I am not saying that is what is being said will be done but I pause and my request to the Committee, in a sense, is to push the Government on precisely why it has put these issues in here. Why does the Government appear to be opening the door to too many different possibilities to provide comfort.

Q271 Mr Havard: As part of a collaborative arrangement, a coalition of the willing?

Professor Sands: To cut to the chase, what I am talking about is the circumstance in which you have an alleged terrorist organisation present in a particular part of the world thought to be meddling with weapons of mass destruction, nuclear or non-nuclear. Is it being said here that those are now circumstances in which we would threaten or use nuclear weapons? It is a question I am posing; I do not know what the answer is.

Q272 Mr Holloway: We are in a completely different world now. We are now in a position where we have terrorists who certainly have the intention, if not the capability, to use weapons of mass destruction. It pains me to defend the Government here but in a sense the terrorists could merely be the delivery system in the same way that the D5 is the delivery system for our warheads, they could be the people who transport it from other countries.

Professor Sands: I am not disagreeing with you. What I am suggesting is that it should be a function of the Committee to wheedle out of the Government precisely what its thinking is on these issues. This language is too vague, it is too ambiguous and open to too many different possibilities to provide comfort.

Q273 Mr Holloway: So are you saying that this is a potential policy shift which, because it is a policy shift, might actually shift the Government from a position where it could have been argued to be not acting unlawfully, illegally or whatever the definition is, into a position where it could well now be outside its treaty obligations or outside some other legal construct? Is that what you are saying?

Professor Sands: Precisely, a possible policy shift. I am not saying that is the case but I would like comfort that it is not the case.

Mr Holloway: Is that view shared, Chairman, by—

Q274 Chairman: Professor Grief, you nod, so do you share that view?

Professor Grief: I am in agreement with that.

Q275 Chairman: Professor Haines?

Professor Haines: I have not read it, I must say, in quite the same way, and I certainly do not believe that the nuclear weapons systems we are expecting to see running on over several years are appropriate weapons systems for use in the broad range of circumstances alluded to by Professor Sands, and I do not think that is what the White Paper says. One of the dilemmas you have when you are dealing with these sorts of systems is that you have to be deliberately vague in some senses in order to ensure that the whole policy has some sort of enduring credibility.

Q276 Chairman: Yes, it says “intentionally ambiguous”.

Professor Haines: Absolutely right, and it is interesting, is it not, that often it is the case that Geoff Hoon’s words are quoted against him in the context of the situation relating to Iraq? I did not read those words in that way. Perhaps that is because I came from an MoD background. This is the intentional ambiguity within certain statements of that sort. I disagree with Professor Sands that this Committee should spend a large amount of time drilling into precisely what the Government means here because I think that would be counterproductive. I really do not believe that that is what the Committee should be doing. For a start, you will never get a straight answer, so you will be wasting your time, and I have spent time myself drafting such things in the MoD. You will not get a straight answer, and quite rightly you will not get a straight answer because if they do give a straight answer they will be revealing their hand. This is one of the problems you are going to be faced with.

Q277 Chairman: Professor Greenwood?

Professor Greenwood: Chairman, I also disagree with Philippe about this, with great respect. There is obviously a political or policy issue here about the relationship between this Committee and the Government and Philippe Sands says that he is very sceptical about some of the things the Government says but that is not a debate I wish to engage in; I do not think it is any of my business. You have asked me here to give evidence about the law. If one looks at the legal issue I do not see that there is anything in this White Paper, and I have read it quite carefully, which in itself means that the decision that the
country is being asked to take puts it in breach of any of its international legal obligations. It is necessarily vague about what might be happening in the future because this is a decision to upgrade nuclear weapons in such a way as to maintain a nuclear deterrent for up to 40 years from now. I do not have a crystal ball that enables me to see that far into the future.

Q278 Mr Havard: Can I ask you that question again? If the policy were to change and we were to deploy these submarines in the Far East, in the Pacific, would that policy change have serious implications because we had?

Professor Greenwood: I do not think that where the submarines are sent would make the slightest difference. The reach of the weapons is such that they could reach targets in many continents anyway. It would be more a question of whether there was a threat of using the weapon in a particular set of circumstances, whether there was an actual explosion of the weapon in certain circumstances. That is a matter that would have to be looked at very carefully in legal terms but, as for where the submarines are located, I do not think there is any legal issue in that, nor do I think there is any legal issue in how many submarines we have.

Q279 Chairman: I want to suggest that there is no policy that the submarines currently should not be deployed anywhere in the world. I think they can be. Professor Greenwood: That is right.

Q280 Chairman: I think they are legally deployable anywhere. Can I get back briefly to self-defence? Leaving aside the issue of whether these weapons are legally usable or not, if they are legally usable for self-defence does that legally include the defence of allies? Professor Greenwood, you nod. It does?

Professor Greenwood: Yes, definitely.

Q281 Chairman: Professor Grief?

Professor Grief: I think yes, it does. The ICJ expressed itself in different ways, but yes.

Q282 Chairman: And Professor Sands? Where does that consent end and who is an ally?

Professor Sands: I nodded precisely subject to that caveat. It would depend on the pattern of the treaty relationships that are in force and it would not be an automatically open-ended demolition of what constitutes an ally. NATO, for example, is a treaty arrangement in which the parties to the North Atlantic Treaty Organisation undertake to protect each other against various forms of attack, so plainly in those circumstances that would be the allied justification.

Q283 Chairman: So an agreement between prime ministers but not a signed treaty would not be sufficient to justify the use of nuclear weapons, you would say, Professor Sands?

Professor Sands: I do not think one could say that. I think one would need again to look precisely at the factual set of circumstances.

Q284 Chairman: In all this uncertainty does it not lead us to wonder what on earth the real meaning of international law is in these circumstances with the ICJ finding seven for, seven against and the President casting his vote? It is quite difficult to work out exactly what the concept of that is but with different interpretations of what international law is and what the international law on this point is and with different meanings of words, is this actually a legal issue at all?

Professor Greenwood: Chairman, I think in the end, as I said in my first answer, it is primarily a political question, not a legal one. Some areas of the law are quite clear and one thing that is clear is that the right of self-defence is both individual and collective and there is no requirement of a prior treaty of alliance between the two states in question.

Professor Sands: I go back to what I said at the outset. You cannot separate out the policy issues and the legal issues. They are so closely intertwined as to be inseparable. I would invite the Committee to proceed with caution in suggesting that there are not rules of international law to be applied here, if only because to do that would cause other countries to seize on those words in circumstances that I certainly would find very difficult. Again I am thinking of the Iran situation. There is a very difficult negotiation on the way right now on precisely what the 1968 treaty does and does not impose upon Iran and upon other countries.

Chairman: You are causing a lot of trouble here, Professor Sands.

Q285 Mr Jones: So those organisations that have been before us arguing that the reason why Trident should not be replaced is a legal one you would disagree with?

Professor Sands: I come back to what I have said. I hope, consistently. It is a legal and political issue in which the two sets of issues are very closely intertwined. You have heard: we cannot as lawyers give you a clear black and white answer as to what the law requires. In that situation it is often no different from the English criminal law on murder and manslaughter.

Q286 Mr Jones: No, but I know in a few weeks' time or when we are having debates in Parliament some colleagues will stand up and argue that there is a legal definition. We have had a campaigner here before who has actually argued that this policy is illegal, so what you are saying is that you do not agree with that, that you can boil it down to a for and against legal position on it?

Professor Sands: No. I think it is much more complex.

Q287 Linda Gilroy: Would you agree, and I would appreciate Steven Haines’ observations on it as well, that ambiguity is really inherent to the nature of a
deterrent and posturing, and as soon as you start entering into hypothetical circumstances you just run into difficulties which means that you end up with the lawyerly equivalent of angels dancing on the head of a pin.

Professor Haines: One of the problems with talking about hypothetical situations is that in my experience you can talk about as many hypothetical situations as you like; what we will eventually be faced with will be something quite different, and if you base everything on your range of hypothetical situations that you are teasing through you will probably get it wrong.

Professor Grief: On this question of law versus policy I think it is a mix, but even a body like the UN Security Council has to act within what has been described as a circumscribing boundary of legal norms and it is no different for the Prime Minister, or any prime minister. Perhaps another question is, after the event would there be anything in the way of enforcement, criminal proceedings perhaps, brought against a particular individual?

Chairman: We have got quite enough questions ourselves. Once you get into the issue of nuclear reprisal then arguments about international law become somewhat academic, do they not?

Mr Jones: You are not suggesting, Chairman, an Armageddon? There is no role for the lawyers?

Robert Key: Don’t you believe it, Chairman?

Q288 Mr Jenkins: I want to probe a little bit on legal restraints. We have moved into an area now which has been in the back of my mind, listening to what you have been saying and your interpretation of agreements. Is there any legal restraint upon the development of a new generation of nuclear warheads?

Professor Haines: I do not think there is a general legal restraint on the development of a new warhead. It seems to me that if you accept, as I do, but I appreciate one or two of my colleagues do not, that the possession and deployment of these systems is lawful, then, of course, one of the responsibilities you have as a nation possessing them is to have the safest, the most tested (in the general sense) system available so that you can be certain that it is a reliable, credible system that you can deploy with confidence, and the Trident system consists of a variety of different components. The submarines have got one, the missile system itself has got one, the warhead is another, and the development of warhead technology and the way that that will advance over the next 30 or 40 years may well result in a different warhead arrangement being required for the system. It is hardly surprising in many ways because, if you take yourself back 20 or 30 years to the point when we were deciding to replace Polaris with Trident and going for D5 and the warhead potential that that had, it was a decision that was made in the context of the Cold War and the warhead arrangement was designed with that particularly in mind. The circumstances are very different today, obviously, and that may require, it may allow, a lower capability in warhead terms and so on, so the development of different warhead arrangements, it seems to me, is an inevitable part of the process of maintaining this sort of deterrent capability on into the future, and it would be irresponsible not to continue to look at warhead technology.

Professor Sands: I would approach the question in a slightly different way. I do not think I can give you a straight black and white answer because it would depend again on the factual circumstances. I would ask myself a couple of questions: would the development of these new warheads make the ultimate objective of disarmament more or less remote or impossible? And, secondly, would it make the use of nuclear weapons more or less likely? If the answer to those question is that it would make it both more likely that they were used and less likely or impossible that there could be disarmament then I think some serious legal questions would arise. For example, if we were sitting here today with a White Paper in front of us announcing a move to a whole new family of tactical nuclear weapons, I think our debate and discussion would not be very different.

Q289 Chairman: You would take a much stronger view, would you not. Professor Grief?

Professor Grief: No, I am happy to associate myself with those remarks. The only thing I would add is that I would emphasise the fact that if a smaller, lower yield weapon were deployed I do think it makes it more likely that the thing will be used, and it would probably be exploded at or near ground level. As I understand the science, the radioactivity from such an explosion would be that much greater. 3

Mr Jenkins: That is where you lose me a lot of the time because some of your evidence and your opinion has been that if I have got a gun and I have a smaller gun I am more likely to use it. Believe me, I am not more likely to use it because I will never use a gun in the circumstances. You are projecting things forward. If you consider that some of these warheads are under development, and Professor Haines is right when he says, if we can make a safer warhead will we have an obligation to make a safer warhead? If we can make a more accurate warhead we have an obligation to make a more accurate warhead. That does not imply that we will use it. It is just that what we have got at present, which is legal now, we have redesigned to make it safer. If that is the case with a warhead what is the difference between a warhead and this system? If we have got an existing system which we legally own and we are trying to make it safer, smaller, more accurate, more accountable, what is the legal difficulty, and do not give me that we have a propensity then, if it is smaller, to use it more often? I do not think that will wash.

Q290 Chairman: I think that was addressed to you, Professor Grief.

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3 Radiation effects would be greater for an explosion at or near ground level because solid material would be sucked in and irradiated and then spread over long distances.
**Professor Grief:** I feared that. My answer reflected what I have read. I am no expert on military scenarios and nuclear technology but I understand that if a weapon is lower yield—let me start the other way round. I think strategic nuclear weapons were unlikely ever to be used. They might have gone off accidentally but they were unlikely ever to be used. There is something in the argument that a strategic nuclear deterrent is not a particularly credible deterrent at all because you are never going to use it because of the devastating effects of using it. If you develop a nuclear weapon which is smaller with a lower yield, for use perhaps in a battlefield type scenario, then it becomes conceivable that you could use the thing and the world would still turn. That is really what was behind my remark, and I cannot claim any expertise on that.

Q291 **Mr Havard:** But developing that capacity now would not necessarily alter the legal imperatives on us?

**Professor Grief:** Not as such.

Q292 **Mr Havard:** Use would maybe?

**Professor Grief:** Use would not as such, but I agree with Professor Sands that there could be issues under Article VI if it renders fulfilment of the NPT obligation more remote.

Q293 **Chairman:** Professor Greenwood, you were shaking your head there.

**Professor Greenwood:** With respect, I do not agree with that. I do not think there is any point in my speculating about whether a weapon would be more or less likely to be used if you had more of them. I find it counter-intuitive to suggest that a weapon which is capable of more precise targeting is more difficult to reconcile with your legal requirement not to use indiscriminate force than weapons which cannot be targeted so precisely. I have never seen the logic of that argument, but I think it is also worth keeping in mind that to the extent that the only treaty provision, indeed the only international provision at all which bears on the question of possession of nuclear weapons as opposed to their use, is Article VI of the NPT. Article VI was drafted nearly 40 years ago. There have been enormous changes to nuclear weapons technology introduced and implemented during the 30-something years that that provision has been in force. One of the best guides in international law to what the treaty means is how the parties apply it in practice. You are actually directed to take account of that under the rules of international treaty interpretation, and so the fact that there have been these enormous updatings of weapons systems during the 37 years now that this provision has been in force makes me find the argument that it implies prohibits any alteration to warheads, any change to them, very difficult to credit.

**Professor Grief:** Could I just come back on the element of Professor Greenwood’s answer about the indiscriminate nature of small weapons? Small nuclear weapons would still be indiscriminate weapons and still in my view be incapable of being used consistently with the principle of distinction.

Q294 **Chairman:** Can I come on to that because, Professor Grief, in your memorandum you say, “The cardinal principles of international humanitarian law are (i) States must never make civilians the object of attack and must consequently never use weapons that are incapable of distinguishing between civilian objects and military objectives”, and (ii) it is prohibited to cause unnecessary suffering to combatants”, so we know what you think about. We know what Professor Haines thinks about that because in your memorandum you say that there are two exceptions to that. The first is if the civilian casualties are of a proportionate scale to the expected military advantage and the second is the case of reprisals. Professor Sands, do you agree that nuclear weapons are incapable of distinguishing between civilian objects and military objectives and are therefore illegal?

**Professor Sands:** I do not agree with that blanket statement because this was an issue that was argued over before the International Court of Justice and the Court came to a different view, and my function here is to report to you what the International Court of Justice said. One can envisage scenarios in which the use of a nuclear weapon would possibly not affect civilian targets in that way, but to the extent that that would not happen, ie, civilian targets would be disproportionately affected, it is very hard to see how they could be justified to be used in law.

Q295 **Chairman:** So you agree Professor with Haines’s two exceptions to that rule about disproportionate and reprisals?

**Professor Sands:** I am certainly much closer to that line of thinking. One certainly cannot say that nuclear weapons are inherently unlawful. That view was put to the International Court of Justice. It was rejected by the International Court of Justice and therefore an alternative analysis is to be applied.

**Professor Grief:** Chairman, I simply wish to observe that in the memorandum you cited I think I do say that the use “in any realistic military scenario would be unlawful”.

Q296 **Chairman:** Inherently unlawful because of the discrimination point?

**Professor Grief:** Yes, but I agree with Professor Sands that you could conceive of a situation where a weapon were exploded in the middle of a desert perhaps without causing any civilian casualties whatsoever. That to me is not a realistic military scenario.

Q297 **Chairman:** Professor Greenwood?

**Professor Greenwood:** I think, with respect, the way in which Professor Grief has framed the question is not quite right either in terms of military science or in terms of law. No weapon is capable of distinguishing between a civilian and a combatant. Weapons are
themselves inherently capable of being used against anyone. More people have been killed by the use of machetes and primitive weaponry of that kind since the Second World War than died in Hiroshima or Nagasaki. The question is rather what legal test does international law apply in the use of weapons? It applies to: you must not deliberately target the civilian population as such save—and this is controversial—in the case of belligerent reprisals. Secondly, if you do target a military objective you must not do so if you are likely to cause civilian casualties which are wholly out of proportion to the military objective you are seeking to achieve. That is not quite the same test and I can envisage circumstances where it would be lawful to use a nuclear weapon against a military objective even though that was going to kill large numbers of civilians if the military gain which you were seeking to achieve was so important. It would only be in an extreme case but I think it is possible that it could happen.

Q298 Linda Gilroy: What is the legal significance of the UK’s recognition as a nuclear weapon state under the Non-Proliferation Treaty? Is this a legal justification in its own right for the UK’s possession of nuclear weapons? We have already raised that earlier but if any of you have any further points to make, particularly on that latter point, we would be grateful. Feel free to say no if you have not.

Professor Grief: I have made my remarks.

Professor Greenwood: To ask whether the NPT authorises the possession of nuclear weapons, which is the way it is put in some of the literature, is the wrong question. Before the NPT there was no rule in international law that prohibited any state from possessing nuclear weapons. On ratifying the NPT most of the parties ratified it or acceded to it as Non-Nuclear Weapon States. They therefore assumed an obligation under the NPT not to acquire nuclear weapons. The five states that became parties as Nuclear Weapon States became parties subject to a different obligation, the obligation in Article VI, so the critical question is not, “Is our status as a Non-Nuclear Weapon state something that authorises the possession of nuclear weapons?” It is rather, “Is our ratification of the treaty as a Non-Nuclear Weapon State something which leaves us where we were before in terms of our right to possess nuclear weapons?” and, I think it does, subject only to our duty under Article VI to negotiate a comprehensive nuclear disarmament.

Professor Sands: I agree with that, subject to a modest caveat. I think it is important, and we have not focused on it, to look at what happened. Christopher Greenwood has alluded to one aspect of that, since 1968 when the treaty was adopted, and in particular developments in the extension because originally the treaty was only to apply for 30 years. The Non-Nuclear Weapon States that joined did so for that limited period of time. The question then arose as to what would happen at the end of that period of time. A deal was struck in which it was extended indefinitely in return for a greater commitment on the part of the Nuclear Weapon States to their Article VI obligations, and again, and I know others at this table will say it is not for us to deal with those issues, I think it is ridiculous not to recognise the interplay of the legal and the policy. One has to ask oneself what is the consequence of a continued failure, if that is to occur, on Article VI for those states that have indefinitely extended their non-nuclear aspirations. The steps that were agreed, in particular in 2000, on Article VI, which I have set out in my opinion, are important at keeping at the forefront of our minds the future wellbeing of this treaty.

Q299 Linda Gilroy: We went into that before but I would like to pursue that to the extent that it has been suggested to us in an earlier inquiry that our seat at the Security Council does not depend upon us having a nuclear weapon, but I wonder if any of you could give us the benefit of your experience. If we did that, in the unlikely circumstances of that happening, would it bring with it any legal limitations on our role as a member of the Security Council?

Professor Grief: No.

Professor Haines: No, none whatsoever.

Professor Sands: There is nothing in the UN Charter which requires Permanent Members of the Security Council to possess a nuclear weapon.

Q300 Mr Havard: Professor Greenwood, you said there were the states that did not possess the weapons and the ones that did and they combine together in the treaty. The obligation on the ones that did not have them was that they would not acquire them; those that had them would try to negotiate them away, in some indefinable process. There is another group of people who were not signatories at all.

Professor Greenwood: Yes.

Q301 Mr Havard: My understanding would be, just as a typical boy from the valleys, is that I would suspect that the people who were signatories to the treaty should not then collaborate with people who were never signatories to the treaty at all to acquire them.

Professor Greenwood: That is right. The treaty does not, of course, bind the states that are not parties to it, but it does bind the states that are parties not to transfer nuclear technology to states that do not accept the assurances—

Q302 Mr Havard: The United States know this, do they?

Professor Greenwood: I am sorry?

Mr Havard: The United States know this, do they?

Q303 Chairman: We will come on to the issue of India in a second. Let us come on to it now. What is your view of the United States’ agreement with India? Do you regard that as a legal or an illegal agreement under the NPT?
Professor Greenwood: I am sorry, Chairman. I would have to go and have a look at the text of the agreement and think a lot harder before I could answer that.

Q304 Mr Havard: I wish we had a fly half with a sidestep like that!

Professor Sands: Can I come back on this point because the other thing that we have not yet put on the table is that states are free to leave the NPT. One state recently has, much to many people's regret. We need to keep in mind also that possibility. Can I refer you in that context to a very interesting opinion piece that appeared in the Wall Street Journal on 4 January 2007. The authors were George Schultz, William Perry, Henry Kissinger and Sam Nunn, an interesting group of characters, to say the least. It is entitled A World Free of Nuclear Weapons and it alludes expressly to this concern about the future wellbeing of the Treaty on Non-Proliferation of Nuclear Weapons. The concern that I am expressing about the wellbeing of that Treaty is shared also by these four individuals and I can leave a copy of the piece with the Clerk.

Q305 Chairman: Professor Grief, did you want to answer?

Professor Grief: The point about the MDA, yes. In my memorandum, which you have, I speculate about that and I suggest tentatively that the MDA might be void because it conflicts with Article VI, but that is predicated on Article VI enshrining a superior obligation in international law, an obligation of jus cogens, and even I would possibly find myself arguing against myself in some respects on that issue.

Chairman: And we could not have that.

Mr Jenkins: A simple thing sprang to mind when you referred to the fact that we would like a world without nuclear weapons. We would all like a world without nuclear weapons but unfortunately it is not going to happen with this team development concept. To do that you would not only have to get rid of the nuclear weapons; you would also have to get rid of all the people who have the knowledge to construct new nuclear weapons, so I am not arguing about proposing that, that we have to get rid of all these individuals.

Chairman: Is this a legal question?

Mr Jenkins: I am asking is it legal to do it, whether it is a right and a duty under the NPT to eradicate from the civilian population all those people with the knowledge to develop these ideas so we can stay in the real world.

Chairman: I think we may take that as a rhetorical question.

Q306 Robert Key: Can I just pursue the question of the Mutual Defence Agreement of 1958 between the US and the UK? What is the legal basis of the Mutual Defence Agreement and how does it relate to the Nuclear Proliferation Treaty?

Professor Haines: This goes back to the point I made earlier about the whole Trident package consisting of a variety of different elements. I do not see the MDA causing a problem in relation to that.

Robert Key: Professor Sands, do you agree with that?

Q307 Robert Key: You do not agree?

Professor Greenwood: No, I do not agree with that at all. I agree with the first part of the premise that there is no violation of Article I because it does not involve the transfer of nuclear weapons. Article VI—let us just think it through for a minute. If under Article VI Britain is entitled to maintain nuclear weapons of its own, but the agreement with the United States about co-operation as to maintaining a British nuclear deterrent is unlawful, then the logical conclusion to that would be that the NPT would require Britain to set up a nuclear weapons production programme of its own. That seems to me to be wholly contrary to common sense and to the policy lying behind Article VI.

Q308 Robert Key: The NPT was actually updated last month. In his letter dated 7 December 2006 to the President of the United States the Prime Minister said that they would like these submarines to continue to carry Trident II D5 missiles, and in addition he says, “I believe that this programme has the potential to open up new opportunities for future co-operation and collaboration on other aspects of future submarine platforms”, and that remark was agreed with by the President in his response, also of 7 December 2006—Royal Mail were working very well—and he concurred with that proposal. Are there any legal restrictions on such new co-operation or apparent extension of the agreement?

Professor Greenwood: I do not see any difficulty with that at all. Also, the particular reference was to the submarine platform rather than to the nuclear weapon itself, which I think would fall wholly outside the scope of the treaty.

Professor Haines: This goes back to the point I made earlier about the whole Trident package consisting of a variety of different elements. I do not see the MDA causing a problem in relation to that.

Robert Key: Professor Sands, do you agree with that?

Q309 Chairman: Hold on. Professor Greenwood, you said the reference was to the platform rather than to the submarine itself. What the President said on 7 December 2006 was, “In this context the United States fully supports and welcomes the intention of
Professor Greenwood: Yes. The MDA renewal is more than just the platform. It was the particular passage that Mr Key quoted just now that I was referring to. I understood the question to me to be, “Does this statement by the Prime Minister and its acceptance by the President raise legal implications under the NPT?”, and I think the answer to that is plainly no.

Professor Sands: I had not seen this until right now. I would simply like to know: what do the words “on other aspects of future submarine platforms” mean? I come back to the point I made earlier. It is a matter of considerable regret, but words used by the Prime Minister may not necessarily have the meaning which the reasonable person in the street would understand them to mean. It would be nice to know what he meant.

Q310 Mr Havard: Can I ask a question that might seem a bit odd? It is essentially about vicarious liability. Say, for example, that we have got Britain and the US as signatories to all of these things and there is a level of collaboration and co-operation, extended or otherwise. The United States goes off and does something independently. It seems we as the UK are not culpable in any sense of having stepped outside our obligations in relation to the treaty or anything else in helping someone else acquire nuclear weapons. It is a debate, for example, that the United States may well be. Where does that leave us in relation to our collaboration with the processes of nuclear development? If we have got a direct relationship with them and they strike a relationship which is not allowed do we have any vicarious liability, other than morally, politically or otherwise? Do we legally have any liability?

Professor Greenwood: It is not termed “vicarious liability” in international law but there are circumstances in which one state may be liable for a wrongful act by another. In my view you would have to have a much greater degree of proximity to the wrongful act than we are talking about here. Co-operation in the development of a weapon does not in my view make one liable for the subsequent use of that weapon. An example of where a state would perhaps be liable for a wrongful act by another state is if it allowed a base on its territory to be used for a specific operation, such as American planes flying from a British air base to attack a particular target. That is capable of making the United Kingdom liable. The fact that the United Kingdom enters into a bases’ agreement in my view would not be.

Q311 Chairman: Professor Grief, would you agree with that?

Professor Grief: I agree.

Chairman: On that note of harmony and agreement I think we ought to draw this session to a close unless there are any further questions.

Mr Hamilton: Chairman, this is an observation more than anything else. Listening to the evidence session this morning, when it comes to weighing up the arguments as politicians there will be some for and some against, and I will probably be in a minority in this company but hopefully a majority in our place. At the end of the day, listening to legal opinion, surely we should just weigh that as one other option we have to think about in the process we are going through about Trident. If we sit down and listen to legal opinion it is divided and therefore as we make up our minds as politicians it should only be seen as one aspect of the whole argument and the moral aspect as well.

Chairman: I think we would all agree with that.

Linda Gilroy: We are all agreed on that.

Chairman: Further harmony then, and I declare this meeting closed.
Tuesday 6 February 2007

Members present:

Mr James Arbuthnot, in the Chair

Mr David S Borrow
Mr David Crausby
Linda Gilroy
Mr David Hamilton
Mr Dai Havard

Mr Brian Jenkins
Mr Kevan Jones
Robert Key
Willie Rennie
John Smith

Witnesses: Rt Hon Des Browne MP, Secretary of State for Defence, Mr Desmond Bowen, Policy Director, Mr Tom McKane, Director General, Strategic Requirements, Rear Admiral Andrew Mathews RN, Director General Nuclear, and Mr Nick Bennett, Director General, Strategic Technologies, Ministry of Defence; and Ms Mariot Leslie, Director, Strategic Threats, Foreign and Commonwealth Office, gave evidence.

Q312 Chairman: Can I say to everyone, welcome to this session, which is the final session of our inquiry into the UK’s strategic nuclear deterrent. This is our third inquiry into that issue and what we intend to do is to conduct an inquiry and produce our report in order to help the public’s and Parliament’s debate on the Government’s proposals and to publish our report at the beginning of March. Secretary of State, welcome. Thank you for the written material you have put in and thank you particularly for producing your response to our second inquiry and speeding up that response in order to allow us to use that for this evidence session, the one into the skills base. I said we will publish our report on this inquiry at the beginning of March, but can you give us an indication as to when the debate is likely to be in the House, that I am anticipating it will be some time around 45 years and he said that the decision was not needed now and that it was being rushed. How would you respond to that or would you like to respond to that yourself?

Des Browne: I am afraid I am not in a position at this stage to give an indication as to when that debate will be, but I have already said, as I think you will recollect in answer to a similar question in the House, that I am anticipating it will be some time in March.

Q313 Chairman: Would you like to introduce your team very briefly, please.

Des Browne: Thank you very much for your welcome and for the recognition of the response to your report on skills which I was pleased to be able to respond to in time to inform this and your other deliberations. On my far left I have Mariot Leslie who is from the Foreign and Commonwealth Office and she is here today because she has expertise in relation to disarmament and counter-proliferation questions. Immediately to my left is Desmond Bowen who is the MoD Policy Director and, I suspect, not a stranger to the Committee who can deal with detailed questions on deterrent policy and the rationale for retaining a nuclear deterrent and more generally how the deterrent fits in with the rest of our defence policy. On my immediate right is Rear Admiral Andrew Mathews who is Director General Nuclear in the Ministry of Defence, our expert on the Vanguard-class submarines, the development of the replacement submarines and submarine and submarine industry issues more widely and maybe busier than the rest of us! Then to my far right is Tom McKane, Director General of Strategic Requirements in the Ministry of Defence who will cover deterrent options and costs, should there be any questions requiring detail in relation to those areas. Behind me I also have Nick Bennett who is the Director General of Strategic Technologies who has come along to assist in the event the Committee wishes to go into detail on our warhead programme and at an appropriate time he may come forward to the table.

Q314 Chairman: You are obviously very well supported. May we begin with a comment that was put to us recently by Professor Garwin that the White Paper was “highly premature” because he suggested that the life of the boats could be extended, like the US Ohio-class submarines, to around 45 years and he said that the decision was not needed now and that it was being rushed. How would you respond to that or would you like to respond to that yourself?

Des Browne: I am content to respond to that myself. That is, I think, an accurate summary of some quite extensive evidence that Professor Garwin gave and indeed I have read the paper that he submitted. I think my immediate response is to say that the key point, and I think this is the point that informs fundamentally our recommended decision in the White Paper, is that at the outset we must recognise that this is firstly an issue about maintaining the key national capability that the nuclear deterrent is and the level of risk that we are willing to take with that capability, and you may want at some time later on or even now, if you wish, to go into the comparison with the Ohio boats which was at the heart of Professor Garwin’s evidence. Fundamentally, I believe that that comparison is not particularly useful or indeed relevant because the planned life of the boats is exactly that, it is planned into them at the outset, and the Ohio class are different submarines, they were designed differently and they were built and maintained for a longer life than our boats were.

Q315 Chairman: I think it would be helpful if you could go into that in some detail because why were we buying short-life assets back in whenever it was we were buying these and what is it about the Ohio class that makes them so much longer-lived in their design?
As with many areas in relation to this issue, there is information which can be put into the public domain and information that cannot be put into the public domain, but we will endeavour, in answering questions, to put into the public domain as much as we can so that people can understand the arguments and we may come to parts of this evidence where we will need to offer some confidential briefing as we will need to recognise the security classification of the information.

Des Browne: As with many areas in relation to this issue, there is information which can be put into the public domain and information that cannot be put into the public domain, but we will endeavour, in answering questions, to put into the public domain as much as we can so that people can understand the arguments and we may come to parts of this evidence where we will need to offer some confidential briefing as we will need to recognise the security classification of the information.

Q316 Chairman: Yes, except, Secretary of State, bear in mind that the purpose of this inquiry is to put as much into the public domain as possible so that it can inform the debate. We are not necessarily asking for anything particularly confidential, we are just asking for an explanation that people can understand as to what is the difference.

Des Browne: Can I start by referring you, Chairman, and the Committee members to the letter which I wrote on 1 February and it may be helpful, since this letter is not yet in the public domain and the content of it is not, if I read part of that. This deals with some of the detail of extending the life of our boats beyond the 30-year period which is the time that we say that it is safe and appropriate and the degree of risk that we are prepared to take with maintaining this capability and in terms of the decision-making. It reads, “Life extension much beyond five years”, which is the five in addition to the 25 that the original design was intended for, “is likely to require replacement of some of the systems critical to submarine operations, such as external hydraulic systems, elements of the control systems (plane and the rudder), sonar systems, electrical systems (including the main battery) and refurbishment or replacement of elements of the nuclear propulsion system. This would involve some hull penetrations. Replacing these systems would require extended additional maintenance periods, resulting in loss of boat availability”, which is at the heart of our decision-making process, “and significant cost, but would not enable significantly increased life. Extension to both component safety justifications and the whole reactor plant safety justification would also be required (and could not be assured). Other systems would need careful assessment and replacement of the turbo generators, secondary propulsion gear and assemblies, deterrent missile hydraulics, hatches and mechanisms might be required. There would also be increasing risks of reliability of other major systems, including potentially the main engine, gearbox shifting and propulsor, all of which could require replacement. As was made clear in the White Paper, we do not at this stage completely rule out further life extension of the Vanguard class. The key point is that on current evidence it is highly likely to represent poor value for money. Moreover, there is also serious concern as to whether it will be technically feasible. The decision will be kept under review at each key stage of the programme to design and build the replacement submarines, but, given the severe uncertainties associated with life extension beyond the 30-year point, it would be grossly irresponsible not to start concept and assessment work in time to ensure that we can field replacement submarines when the Vanguard class reaches the 30-year point”. In summary, such a life extension would entail too much risk to our national security and the evidence that we have suggests that it would be poor value for money. If I may now, I will hand over to the Rear Admiral who, I think, may be able more accurately to draw, where we can, the comparisons with the American Ohio-class boats.

Q317 Chairman: Could you explain at the same time, Rear Admiral, whether the Ohio-class boats are worked more or less hard than the Vanguard-class boats please?

Rear Admiral Mathews: Within the classification, I will do my best.

Q318 Chairman: Yes, within the classification.

Rear Admiral Mathews: The principle we aim to do is to generate one submarine from four at sea on operational patrol and Professor Garwin implied, therefore, that our submarines spend about 25% of their time available to generate that one on patrol. Clearly that is not the case because we have to train our people, submarines have to conduct trials, they have to test equipment and they actually have to change over while on patrol, so actually the time that we have our submarines operationally available is in excess of 50% and that is pretty comparable with the US Ohio class. The difference with the Americans is of course that they are generating say two or three hulls from 14 and that gives them a considerable amount of flexibility about how they operate their submarines, what decisions they can make through life and the balance of risk they can take. One from four is much tougher. Now, what we know in terms of availability with nuclear submarines from British operations is that availability reduces through life. Over the first 20 years, it typically reduces by about 5 to 7% across that period. Once we have gone beyond 20 years, the three classes which we have got operating records for, because we have not taken others beyond that yet, show that we lose availability of around 10 to 15% over the next 10 years, which is in addition to that 5 to 7%, so that is a significant drop in availability and it falls off, as I say, fairly sharply. We know from operating experience that, in getting towards 30 years, four boats becomes very tough in terms of generating one on patrol and that is where we are at the moment. We do not believe that the risk equation supports taking Vanguard class beyond 30 years. We have done a lot in terms of managing the Swiftsure class through those last difficult periods and it has not been good in terms of availability. With the Resolution class, if I go back to the early 1990s, we were really struggling to maintain one boat out at sea. We had people working on the safety justification seven days a week, change over while on patrol, so actually the time that we have our submarines operationally available is in excess of 50% and that is pretty comparable with the US Ohio class. The difference with the Americans is of course that they are generating say two or three hulls from 14 and that gives them a considerable amount of flexibility about how they operate their submarines, what decisions they can make through life and the balance of risk they can take. One from four is much tougher. Now, what we know in terms of availability with nuclear submarines from British operations is that availability reduces through life. Over the first 20 years, it typically reduces by about 5 to 7% across that period. Once we have gone beyond 20 years, the three classes which we have got operating records for, because we have not taken others beyond that yet, show that we lose availability of around 10 to 15% over the next 10 years, which is in addition to that 5 to 7%, so that is a significant drop in availability and it falls off, as I say, fairly sharply. We know from operating experience that, in getting towards 30 years, four boats becomes very tough in terms of generating one on patrol and that is where we are at the moment. We do not believe that the risk equation supports taking Vanguard class beyond 30 years. We have done a lot in terms of managing the Swiftsure class through those last difficult periods and it has not been good in terms of availability. With the Resolution class, if I go back to the early 1990s, we were really struggling to maintain one boat out at sea. We had people working on the safety justification seven days a week for a very long period of time and we were losing people from some of our industry and support because of the hours we were pressing them to work. We survived that. The point I would make to the
Committee is that Resolution, if Professor Garwin was right, would still be operating today. We were struggling in the early 1990s and I do not think it would be conceivable that we would be successfully maintaining the continuous at-sea deterrence with that class of submarines now. In terms of Ohio—

Q319 Chairman: Are you going to add to what the Secretary of State was referring to in the memo?

Rear Admiral Mathews: Only in detail. As the Secretary of State said, Ohio started off with a more modern design and has made a different use of materials. The Americans designed for a longer-life submarine. For instance, in steam systems they made a decision about up-front investment to generate that life by using a different material from that which we do, and I am being careful about what I say in terms of actual materials. Our steam system, we are confident, will last 30 years and thereafter we would expect to have to change a large amount of it. The Americans are confident that the material they have used will last the extended life of their submarines, so that puts them in a different sort of place in terms of trade-offs through life because they designed in a longer life at the outset. We were driven quite hard in terms of unit production costs at the outset, so we set ourselves a design time-line and built a submarine to meet that. Now, the Americans built in some fat in their design; they can operate their submarines differently, as I have already mentioned, and they do have that ability to take some risks in their programme. The final thing I would say is that they have not got to 42 years yet. It is a plan and they can afford to take some risk against that plan because they will have already been bringing in their new-generation SSBN for about 14 years by the time the last Ohio gets to 42 years, so they will have a much bigger mix in terms of new and old.

Q320 Mr Crausby: I just wondered what the original life expectancy of the Ohio was as far as the Americans were concerned.

Rear Admiral Mathews: It was 30 years with a margin on top of that.

Q321 Mr Crausby: So it was a minimum of 30 years?

Rear Admiral Mathews: A minimum of 30 years.

Q322 Mr Borrow: Could I come to our submarines. From reading the White Paper, it implies that the Government proposes to extend the life of our submarines by five years from 25 to 30 years. Is that in fact the case or is that one of those issues still to be resolved?

Des Browne: We have decided to plan on extending the life of the Vanguard class by around five years, and the answers to the earlier questions imply that we think it would be imprudent, indeed risky, to plan any greater life extension. It does not mean that we have fixed the actual date for each submarine for when it leaves service, but it forms the basis upon which we plan the programme to replace them with the new class of submarine.

Q323 Mr Borrow: What are the cost implications of doing that?

Des Browne: Maybe Mr McKane might be able to deal with the specific costs.

Mr McKane: The position is that detailed costings of that life extension will be generated as we get closer to the point where work actually has to be done on the boats, but the work that we have done shows that we are probably talking in round terms of hundreds of millions for the five years for the four boats.

Q324 Mr Borrow: So that is hundreds of millions for each of the four boats?

Mr McKane: No, it is hundreds of millions for all four.

Q325 Mr Borrow: I think we have heard evidence at earlier hearings that to extend the life beyond 30 years is not impossible, but the suggestion has been made that that could cost up to half the cost of a new boat.

Mr McKane: Well, I would say that you then start to talk in terms of billions.

Q326 Mr Borrow: To extend beyond the 30 years?

Mr McKane: To start planning to extend them, say, for another five years or longer.

Q327 Willie Rennie: The White Paper considers the cost of procurement of the new SSBNs to be around £15–20 billion for a fleet of four boats. How did you reach that figure and how does that figure compare with the Vanguard class?

Mr McKane: Well, as the White Paper makes clear, the £15–20 billion is composed of three broad components: the submarines, which we have estimated would cost in the range of £11–14 billion at today's prices; then a warhead programme which might cost another £2–3 billion; and infrastructure for which we have put in an estimate of £2–3 billion. The cost estimates of the submarine, as again the White Paper makes clear, are inevitably initial estimates at this stage and there has not been the level of detailed work with industry that would be necessary to refine them, but they have been built up on the basis of historic costs of previous submarine programmes uprated to today's prices by taking individual components of the submarines and putting it all together, and that is the resultant figure, the £11–14 billion. As for the other two sums that I mentioned, the £2–3 billion for a warhead are figures that again have been subject to some internal study which I cannot really go into too much here, and the infrastructure costs are based on an analysis of the asset registers of existing infrastructure associated with the deterrent infrastructure on the Clyde at Faslane and Coulport infrastructure, and infrastructure at Devonport. There is inevitably uncertainty about precisely when such expenditure would have to be incurred and again, as we made clear in the letter that the Secretary of State referred to, this sum of £2–3 billion for capital investment
and infrastructure would be additional to any ongoing maintenance costs associated with existing infrastructure over the period of the life of the boats.

**Q328 Willie Rennie:** Could you give a stab at what you think the through-life costs will be? Have you briefly mentioned it there, but have you got a rough estimate?

**Des Browne:** We estimate that to be between 5 to 6% of the defence budget. I just refer back to the White Paper, that we were perfectly clear in the White Paper that the procurement costs would be refined as the concept and the first assessment phase is taken forward with industry. We also go on, I think, in the White Paper to make it clear that this clearly will need to be more accurate and more transparent in terms of its accuracy before we actually get to the contracting time of 2012–14, but I would just say that the running costs are around 5 to 6% of what they presently are, so we estimate that the running costs will be what they presently are. What people do of course in terms of argument is that they aggregate those running costs with £15–20 billion, which is a perfectly legitimate thing to do, but that is what they do to come to these larger figures.

**Q329 Willie Rennie:** There is great interest in where this sum of money will come from. Will it affect the conventional forces or will it come from outwith the MoD budget? Can you shed any light on that?

**Des Browne:** I cannot make it any clearer than the Prime Minister does in the foreword to the White Paper itself. He makes it clear that this investment will be maintained not at the expense of the conventional capabilities of our Armed Forces, so I cannot give any clearer reassurance than that; that is the Cabinet’s reassurance. Can I just say though, Chairman, on that point that it is important that people should understand that we do not see this strategic deterrent as being an alternative to conventional forces. It presently is additional to our conventional forces and for a different purpose, so that is exactly consistent with, and is nothing new, the way in which governments of this country approach this expenditure.

**Q330 Chairman:** So have you thought of charging it to the Foreign Office?

**Des Browne:** I do not think the budget is big enough!

**Q331 Mr Jones:** Secretary of State, can I just ask a question around this because we are having a debate in March in Parliament about whether or not we should go ahead with this programme, unlike the pro- and anti-nuclear debates in the 1980s where clearly there are some remnants still around and we had some of them before us the other day in the likes of the CND and others, but something which is actually, I think, preying on the minds of a lot of Members of Parliament and politicians is the fact about costs, whether we can actually afford this. Do you not think, in terms of having an informed debate, that pinning down these costs is going to be very important in that debate? Although it might be reassuring to you that the Prime Minister can say that it is affordable in the future, it is not going to be his problem, is it, after the summer and is his possible successor confident that we can actually afford this within the defence budget?

**Des Browne:** Well, assuming that his possible successor comes from the Cabinet, then his possible successor was a party to the agreement of the White Paper, and there was no dissonance from anyone in the Cabinet about this. What we are seeking to do here in this White Paper is inform the country and Parliament to an extent that they have never been before about the issues that underpin this decision at a time in the process that we have been through once before, but was conducted in secret effectively. Now, necessarily there is to be a degree of assessment, so these figures that we are putting in the public domain, I know from the evidence that has come before your Committee, have been supported by a number of experts. They are informed by our own experience and by the discussions that we have had with industry and by the skills and abilities that we have built up over a period of time in this area. They are the best estimates that we can give, but of course they will be refined by the process at the concept and assessment phase and we will have an obligation, or the Government will have an obligation, to keep Parliament and others informed about that development, but at this stage in relation to the work that we need to start now, the decision that we need to take now, then we have put into the public domain the information that we have in as much detail as it is appropriate for us to do and these are honest assessments.

**Q332 Mr Jones:** But we have not had a good track record of procuring submarines. Have you actually built into these costs a possible contingency for another Astute-type fiasco?

**Des Browne:** The circumstances of Astute, which have been examined by the Select Committee and others, I know, were very particular and, among others, they were a function of allowing the skills and capabilities for submarine design and build to deteriorate and they needed to replace them. Can I just say that, as a country, we have a very good track record of building these SSBNs and in fact the current class of submarines came in on time and under budget in terms of the estimations. Can I also say that these figures that we have put into the public domain are not just based on our own experience, which is extensive and actually in this area of procurement a good experience, but they are also based on the international experience of a lot of other countries who have built submarines and of what they were likely to cost. It may be that someone with me may want to add to that in terms of detail or confirmation.

**Mr McKane:** It is worth saying that the costings have been done carefully to ensure that they do include a range. I made it clear a few minutes ago that we were talking about a range of costs and that
the range contains contingency, although it is not separately identified in the White Paper as a contingency.

Rear Admiral Mathews: On Astute, we have learnt hard lessons on Astute.

Q333 Mr Jones: I hope you have!

Rear Admiral Mathews: Well, we have. We had effectively a 10-year gap in the build programme and at a recent review of the Astute programme by what we call a “red team”, effectively a group of people taken outside our own industry, so we have Electric Boat, some US Navy, et cetera, their conclusion was that we have now re-established the build capability and that has taken us nearly 10 years. The lesson for us is to go back to Vanguard, recognise what we did for Vanguard and learn from the Astute experience.

Q334 Mr Hamilton: Secretary of State, you gave the response quite rightly that there will be a decision, there will be a discussion and there will be a vote taken. Effectively, for most of us that will be a once-in-a-lifetime opportunity to make that decision, a one-off decision, if you like. How do you answer the people who put it to you that you have got it the wrong way round and what we should be doing is having the debate about where the UK’s role is within the world and indeed about our conventional forces versus Trident and that more money should be put into the conventional forces after we make a decision about where our role is in the world? Are we not just having a debate about one part of the defence budget which in fact puts us into a position where we then restrict our debate at a later stage?

Des Browne: I do not agree with that, and part of the reason for the very specific reference in the foreword and in the Paper itself to the commitment that this expenditure will not be incurred at the expense of conventional capabilities was to reassure people of that. I have to say that, whatever other words I use, that is what that assurance will come to at this stage and people either have to accept that, given that it comes from the whole of the Government, or not accept that, and we cannot be any clearer than that. As far as contextualising this decision is concerned, can I just say that there are those who argue that we do not need to make this decision now, not, with respect, Mr Hamilton, for the reasons you have articulated, but for other reasons. Essentially, the arguments come to, “These are difficult decisions and, if we can put them off, let’s put them off”. We have sought to set out in the White Paper, and I think this has stood the test of debate and time, although people assert that it is not necessary to do it, but they refer to the previous decision, not recognising that when the decision was made in relation to Vanguard, much of the concept and assessment work was done before the decision was announced, so they assert that that is the case, but what we have sought to do in this White Paper is to set out the nature of the threat that we think this country is likely to face, or probably will face, in years to come and, in the light of that context, make a decision as to whether we should continue to have a strategic deterrent. The view that we have come to, on balance, is that we should continue to maintain, and plan for, our future generations needing to have a strategic deterrent and I think that is a coherent argument, I think that it is admittedly “on balance” and it is the right argument. In my view, once you accept that that threat is there or likely to be there, then you are to a substantial degree committed to having to defend yourself against it. We have to do of course the same thing in the context of the world that we live in in relation to our conventional capabilities and we have to ask ourselves, as the Prime Minister asked the country recently in a very extensive speech, whether we are prepared to make the investment in our conventional capabilities to meet those challenges and our place in the world.

Q335 Willie Rennie: Secretary of State, I think you misrepresent slightly those who argue for a delayed decision. In the White Paper, it says that the detailed construction and design contracts will not be awarded until 2012–14 and you have already mentioned that you do not have all the detailed costs associated with it and you will only know those as time goes on. Rather than trying to wrap up all the decision on Trident now, do you not think it would be more appropriate or better to wait until we are in advance of 2012–14 so that we are more aware of all the facts and, as well as the international situation, the security situation so that we have got all that information together before we make that decision?

Des Browne: Mr Rennie to some degree assumes that there are not other decisions to be made after this decision is made. Of course there are, but the question is whether the Government should carry on with what is necessary to inform that later decision about the contract without any recourse to Parliament and whether the Government should incur that expenditure in an extending review period in relation to planning for that decision without any recourse to Parliament or without any public debate. The difference between the Liberal Democrats and us appears right now to be that we are prepared to have a public debate about this part of the decision and have this decision made publicly, whereas the Liberal Democrats want us to plan for a later decision in a secret and quiet way and then surface that decision at the point at which we are contracting. It is very clear.

Q336 Willie Rennie: I think you are misrepresenting again. What I am suggesting is that it should be in a staged process and, rather than trying to make everybody make decisions all at once now, why do we not agree to go ahead perhaps with the initial concept and design work and have another parliamentary vote in advance of 2012–14 when we are aware of all the facts and the international situation?

Des Browne: I am constantly told by people that no Parliament can prevent a later Parliament from making another decision. The beauty of our
democracy is that people can address decisions that need to be made when they need to be made. What we are saying here is that looking forward from here, on balance, our view is that the strategic contexts that future generations will face are likely to be such that they will want to have the benefit of the nuclear deterrent that we have enjoyed the benefit of for the past 50 years and, if we are to offer them that opportunity, we need to make certain decisions now and these are the consequences of those decisions. Now, we are not making all of the decisions, there are aspects of our nuclear deterrent which we will need to make decisions about at some time in the future, for example, the warhead, the replacement of missiles, so we are making the decisions that we have to make now and we are being consistent and open and saying to people, “These are the consequences of those decisions now”. Let us not take them as if we are only taking a part of this now and we will stage this through, but let us be honest about what we are doing. I must admit, I am confused about the Liberal Democrat position in relation to this. This is the first time I have heard anybody articulate their position as being, “Yes, we should be making a decision now, but that decision should be restricted to a certain part of this”. Now, that is the first time I have ever heard that. As I understood it, the position was that we do not need to make this decision until 2014 and that necessarily, in my view, meant that other things had to be done without any decision being made, but if you have the ability to be able to put together your Party’s policy from here in questions, then that is a good position for you to be in.

Q338 Willie Rennie: But can you give me a rough idea of how much the additional cost would be on top of it? What roughly would be the breakdown if you took a stab at it?
Mr McKane: The additional costs of decommissioning?

Q339 Willie Rennie: What would be the costs of just maintaining the SSNs alone and then if you added on to that the maintenance of the SSBNs? Can you give me that kind of figure? Does that make sense?
Mr McKane: I am not absolutely sure what you are looking for, I am afraid.

Q340 Linda Gilroy: In the response to our previous report, the cost of £600 million was given in paragraph 17 for supporting both the SSNs and the SSBNs and I think the question was directed at finding out what the cost of maintaining the SSNs alone would be in the unlikely event of a decision being taken not to proceed with a new platform?
Mr McKane: I think I am right in saying that the Committee’s own report, the fourth report, acknowledged that in this hypothetical circumstance it would be still necessary to bear the costs of sustaining the SSNs. In practice, a lot of these costs are fixed costs which, by their nature, are quite difficult to attribute in a precise way to one or other of these programmes.
Linda Gilroy: Could we ask for a note giving a little more detail?

Q341 Chairman: In view of what you are saying, Mr McKane, would you be able to give any more detail or are you suggesting it is just arbitrary?
Mr McKane: I am not suggesting it is arbitrary, I am suggesting that there is not a science that one can apply to this.
Chairman: Could you give us as good an estimate on it as you can in a note to us, please.

Q342 Willie Rennie: On D5 missiles, what is going to be the cost of participating in the US Trident D5 missile life extension programme, a rough breakdown of that?
Des Browne: It is about £250 million.

Q343 Willie Rennie: The White Paper allows for £2–3 billion for infrastructure costs. What is the infrastructure money for and does it include Aldermaston within it?
Mr McKane: It does not include Aldermaston within it and it is for the purposes that I described earlier. It is based on an assessment of the asset lives of infrastructure at Faslane, at Coulport, at Devonport and, from that, an assessment of how much might have to be spent over the period between now and the out-of-service date of new submarines.
Mr Borrow: Have you had any indications from BAE Systems, should Parliament decide to adopt the approach to the Liberal Democrats’ wishes not
Q344 Mr Jones: You said £250 million which is a figure which has been quoted before to us about the access to the programme. Is that the down payment to actually get into the programme or what are the potential costs that you actually estimate are going to be ongoing?

Mr McKane: That is the cost, that is the estimated cost to the UK taxpayer of participating in the life extension programme.

Q345 Chairman: Secretary of State, you said that the through-life costs of the submarines would be about 4 to 6% of the defence budget. I remember the days when it used to be 1 to 2% of the defence budget. Is that an indication of a declining defence budget or of an increasing cost of submarines and would it be possible for you to give us the figures as opposed to a percentage of an assumed defence budget?

Des Browne: I am perfectly content, Chairman, to do the best that we can in relation to that, subject to the limitations that we have already had articulated about our ability to be able to identify particularly fixed costs for capability other than the SSBNs. I am content to do that, but I do know that we went through an exercise recently to make sure that we were identifying as accurately as we could the costs that are associated with our nuclear weapons systems and that caused us to revise information that previous governments may have put into the public domain. I just want to say in relation to the £250 million that the White Paper quite specifically deals with this issue at paragraph 5.10. This evidence that we are giving merely confirms what was already in the White Paper, that our contribution to that extension programme we have estimated at £250 million.

Chairman: I think we will now move on to the size and scale of the UK’s nuclear deterrent. Linda Gilroy.

Q346 Linda Gilroy: The White Paper says that the UK is committed to retaining a minimum nuclear deterrent. How do you decide what a “minimum deterrent” is? Is it measured in terms of destructive effect, or an ability to hit a set of number of targets, or something else?

Des Browne: If it is a choice between destructive power or the ability to the hit the target then it is both. To have a proper deterrent it needs to be not just minimum but credible and operationally independent. Credibility requires that you have to be able to influence a potential enemy wherever they may be in the world, so you have to be able to hit the target, so it is vital that you have to be able to hit the target. The minimum deterrent is the capability that we judge is necessary to provide an effective deterrent posture which is based on an assessment of the decision-making processes of any potential future aggressors and an analysis of the likely future effectiveness of any defensive measures that they might employ, which is based on a range of information, including some that comes from intelligence sources.

Q347 Linda Gilroy: Context is important to defining a minimum deterrent. When I was asking the lawyers who were in front of us last week if anybody else was defining the benchmark of what a minimum deterrent was it seemed there is no international discussion about that. Do you think there is any prospect there could be such a discussion as to what was an agreed minimum deterrent otherwise it is what we say it is?

Des Browne: Well, I think as far as we are concerned in government we are committed to maintaining the minimum nuclear deterrent but that minimum has to offer a credible threat to any potential aggressors. They have to understand that we can defend ourselves in the circumstances in which we are prepared to say that we would defend ourselves, and that is in the most extreme of circumstances with a threat that matches the nature of the threat that we face. I can only speak for our government but it is instructive that we have, as one of a small number of nuclear weapon states, 1% of the nuclear warhead capability in the world, so it is very clear that other countries take a different view if they are seeking to achieve a minimalist approach to this. We have set out in the White Paper that we want consistently in the international community to engage others with a view to minimising and seeing through our international commitments collectively. I am not in a position to speak for other people and I do not think I can answer that question for other countries.

Q348 Linda Gilroy: On the nuclear weapons stockpile, in the White Paper that will be cut from 200 to 160 and, given that each submarine will still carry up to 48 warheads, I think some question what the operational significance of that is. Can you put that in context in a way that responds to that scepticism that it does not really mean anything, I suppose?

Des Browne: It means that we will be dismantling around 40 warheads, which is quite a significant reduction in the number of warheads that we presently have. People should not minimise that, nor should they minimise the fact that we have in the time we have had stewardship and government of this deterrent halved the number of warheads.

Q349 Chairman: So when we have received evidence that has already happened—

Des Browne: That what has already happened, Chairman?

Q350 Chairman: That it has reduced from 200 to 160, that would be wrong, would it?
Des Browne: Yes. In this process we carried out an exercise to review the scale of the capability we required bearing in mind that we are looking forward to the period 2025–50 in the planning we are making now. This is the first time we have changed the size of our stockpile since the decisions we announced in the Strategic Defence Review in 1998 and it is driven by an analysis, a very hard analysis, of the capability that we believe we require. People can assert, and they do in this debate all the time, that there are other reasons other than the reasons that we have put into the public domain as to why we make the decisions, but I can assure the Committee that this process was a difficult and challenging process and we went through it with a view to ensuring that we did have the minimum deterrent which has always been our policy.

Q351 Linda Gilroy: Looking at the D5 missile, the White Paper says that: “there will be no enhancement of the capability of the missile in terms of its payload, range or accuracy.” Do you have that assurance from the United States?

Des Browne: As people know, we have a common stockpile of missiles, we have an ownership of them, and we have an understanding of what the United States plans to do in terms of the extension programme. There are now in the public domain letters of assurance passed between the Prime Minister and the President of the United States agreeing the position, in relation to among other things, these missiles, so we have the assurances that are expressed in the letter from the Prime Minister on 7 December and the letter from the President of the same date. I could read the relevant sections.

Robert Key: We have read it.

Q352 Linda Gilroy: That actually specifically says that there will be no enhancement in taking part in the extension?

Des Browne: The relevant paragraphs are, in the Prime Minister’s letter, the second paragraph on page two and I would draw people’s attention to the last paragraph on page one of the President’s letter which carries on over the page. I will not read them.

Linda Gilroy: Thank you.

Q353 Mr Jenkins: Secretary of State, you must love coming before this Committee, you get such an easy ride! Let us look at this situation with regard to our deterrent. Some people would assume that the only reason we have got a deterrent now is to allow statesmen to stride around the world being members of a rather all-powerful nuclear club. Since the end of the Cold War even you must accept that the fundamental principles of deterrence have changed, if not in nature then in context and at the present time it is bound to have implications for the practice of our defence policy, so how can you sit there pretending there has been no change, our policy has not altered and the utilisation of this deterrent has not been affected?

Des Browne: In the first instance, Mr Jenkins, I do not sit here pretending there has been no change. In fact, quite a substantial part of the White Paper is devoted to explaining just how changed the world has been since the end of the Cold War and how much we think it will change in years to come and how uncertain it will be, which is another way of describing continuing change in years to come. I made the point recently at King’s College of going into some detail about this issue in a speech I made there addressing the issue of deterrence. I am sure you have a copy of the speech but it might be helpful for the purposes of the evidence here if I just summarise some of the points that I think I made there recognising that, indeed, there is a change. Accepting that deterrence may have had some relevance in the Cold War, now the Cold War is over and is no longer needed, or the threats to our security have changed and our weapons should change to match them, or because there is no country presently it is said that has the capacity and intent to threaten us there is nothing for us to deter at the moment so we should scrap all of this, my argument is that the Achilles’ heel of that argument is we cannot be sure that such a threat will not emerge over the next 50 years. The important thing is that is what we are making decisions about now and we may well be, as Mr Rennie was saying, at the foothills of those decisions, and I accept that, but it is important that we recognise what the climb is and how high up we need to go in order to be able to maintain this deterrent. It is the timescale that we need to think about and we need to consider the future of our deterrent in that timescale. We cannot just wait until we are nearer that time and have more certainty about the nature of the threat before we make these decisions because history tells us that countries’ intentions when they have capabilities can change very, very quickly and all of your investigations and reports have shown in terms of our ability to be able to build and maintain this capability that we need to make decisions to maintain skill bases, we need to make decisions to maintain our ability to be able to service. We are of the view, and I think this view is shared, that we could not do this in such a way that we could create this sort of deterrent if we needed to unless we maintained our ability to be able to do it. We could not do it as quickly as these changes could come about. Could I also just say that I fundamentally do not think that deterrence is an outmoded concept. I said this at King’s College, and I repeat it here: I think it is unfortunate that it has become associated only with the issue of nuclear weapons. Our conventional capabilities have a deterrent effect. Deterrence is not that sophisticated a concept, it is the whole basis, for example, of the concept of self-defence in this country. It is your ability to deter a particular act because of the consequences of your likely act of self-defence. I think the concept of deterrence could be understood from the way in which people carry themselves in certain environments in the street to be able to deter potential aggression all the way up. I do not think it is that complicated. I think we have
over-sophisticated it because it has always been associated with nuclear weapons but it lies at the heart of quite a lot of our defence policy. I do think that there is a modern analysis of this. There is a 21st Century analysis of this. I have tried, with the Foreign Secretary, to articulate that in this White Paper and to explain it since then. The last thing that I have been doing in this debate is going round saying to people that the status quo that instructed the decisions of the Cold War are still there; that is not the case.

Q354 Mr Jenkins: We are discussing the nuclear deterrent on this occasion, that is the difference. In the White Paper it says that the nuclear deterrent could be employed to defend the UK’s “vital interests”. This is not the survival of the nation but our “vital interests”. What exactly do you mean by “vital interests” because it is not the survival of the nation? Is it the survival of allies or do you mean the UK’s trading and economic interests? Where do you draw the line?

Des Browne: I think you are quite right, Mr Jenkins, to say that we are discussing the nuclear deterrent in this context but it is important that we understand the principles that inform deterrence because my argument is you can only deter nuclear threats with nuclear weapons. If we think, as we do, and believe that the uncertainty of the future world is on balance likely to generate a potential threat to future generations in this country from nuclear weapons then we need to equip them to be able to meet that.

Q355 Mr Jenkins: We are never going to prove that.

Des Browne: Absolutely, and I accept that. Indeed, in that speech I said there is no evidence other than our experience of the last 50 years to rely upon but at least we have that evidence of the last 50 years to rely upon, we have the experiment of that if we are looking at it in terms of scientific proof. You asked me to define our “vital interests” and I am going to decline the invitation to do that for a number of reasons. I think at the outset I said there is no evidence other than our experience of the last 50 years to rely upon but my argument is you can only deter nuclear threats with nuclear weapons. If we think, as we do, and believe that the uncertainty of the future world is on balance likely to generate a potential threat to future generations in this country from nuclear weapons then we need to equip them to be able to meet that.

Q356 Mr Jenkins: Now I have managed to extract that one in relation to our allies out of you, we have two allies who have nuclear weapons: on the European mainland we have France and, of course, we would never do anything in the United States of America. Since the implication is they would do the same for us, why do we need a nuclear deterrent if America would look after our interests in the world and France would look after our interests with regard to the European mainland?

Des Browne: I do not believe that we can make a decision now that would require future generations to rely upon not our allies in terms of NATO coming to our defence in terms of the Treaty obligations in terms of NATO, and even then we are presently a nuclear weapon state. It is not just about our confidence in our alliances, and we have confidence in them, but it is about our confidence in any potential aggressor making exactly the same determination that we are prepared to make.

Q357 John Smith: That defence posture, that deterrent posture, depends on the credibility of our weapons system. The White Paper is putting forward a nuclear deterrent solution for the next 30–50 years or whatever and the basis of the Trident system up to now has been its invulnerability. Should technology develop that can track submarines in the next 30–50 years, do you believe our deterrent still remains credible?

Des Browne: I would just say, Mr Smith, and I am sorry I did not bring this with me, somebody provided me the other day with a quotation and I think somebody may be able to find it because it is quite instructive. It was a very direct quotation that anticipates that within 30 years the opaqueness of the sea will be gone and, therefore, the submarine-based system will become vulnerable because of that, which is essentially the point you are making. The fact of the matter is that was a direct quotation as I recollect it, Chairman, from the person who occupied your seat at the time that decisions were being made about the Vanguard class submarine. The conventional wisdom was that the opaqueness of the sea would be gone and we would have to test whether we should make this investment in submarines against the almost certain knowledge that submarines were going to be detected: “It is almost certain, is it not, that within the next 30 years, which is the lifetime of this weapon, all submarines, wherever they may be on the sea bottom, will be detectable and detected and, therefore, very vulnerable”. That was from the then Chairman of the Defence Select Committee, Sir John Langford-Hope, who was an ex-practitioner on anti-submarine warfare in October 1980. People are still saying that and in debate people assert this to me as a scientific certainty. I had somebody the other day
Des Browne:—in the possession of this deterrent straightforwardly for a longstanding period of time refused to either rule in or rule out first use of nuclear weapons and I will continue to adopt that position because that is all part of our intention to maintain an effective deterrent posture through the policy of deliberate ambiguity.

Q362 Mr Hamilton: You will appreciate that when colleagues discuss this on the floor of the Commons this will be the part of the discussion they will follow. I want to pick out some detail in relation to page 19 on state-sponsored terrorism. The final part of that is “any state that we can hold responsible for assisting a nuclear attack on our vital interests can be expecting that this would lead to a proportionate response”. I am trying to think of a proportionate response. For example, if 9/11 had happened with a nuclear deterrent, would that mean we would have wiped out Afghanistan and everybody who was in it? Des Browne: Unequivocally I can say the answer to that particular question is no, that is not what that means at all. The first point is that the Government has a strategy for dealing with international terrorism which is clearly, and I think accepted, the most serious risk that this country faces today and one that we need to address. I want to stress again the decision that this White Paper addresses and we are discussing today is whether to invest in order to maintain our nuclear deterrent in the 2020s and beyond and not to deny future generations the safety and stability that we have enjoyed over the last 50 years by a decision not to do that. There are those, I think, who argue that we should abandon this now and concentrate on dealing with international terrorism but, as the Prime Minister says in the foreword to this paper, we are not going to be any better off by giving up nuclear weapons but we do identify among the other threats that we might face the possibility that at some time in the future a rogue state which has that capability may want to use terrorists as proxies as a way of launching weapons against us. That is what that is designed to address. It is designed to address the state of mind of the strategic threat posed by states in possession of nuclear weapons using a delivery mechanism that employs the use of terrorism and deterring that sort of behaviour. I am just making it clear that what we are not doing is we are not saying that we would deploy this as a deterrent or as an answer to what people would generally consider to be the terrorist threat but there is a very specific point made in the White Paper designed to identify a possibility in the future.

Q363 Mr Hamilton: I realise you were a lawyer before you became an MP, but it does raise the question that there is a balance that has got to be reached and it is one of nothing or something. There is a balance that has got to be reached between our conventional forces and what we offer in the nuclear deterrent area. That is a debatable argument and one on which many people on principle would surely agree with. It is not one against the other. You raised
the question about conventional forces being a deterrent. If we are stretched within Afghanistan, Iraq and so on, surely it does raise the question of where we spend our money and that is a realistic question that people should ask at this moment.

Des Browne: That is exactly why we are obliged in government to say this will be additional expenditure over and above the settlement that we will announce in relation to the support of our conventional forces.

Q364 Mr Hamilton: One final question. If the decision by the House of Commons, irrespective of the Three Line Whips, was not to proceed with the nuclear deterrent, would that 6% additional money go into conventional forces in your opinion?

Des Browne: I am not planning to lose this vote in the House of Commons, so all of my focus—

Q365 Mr Hamilton: I did say you were a lawyer. Des Browne: All of my focus is on succeeding to persuade a majority of the House of Commons that we should do what is in my view overwhelmingly the sensible and appropriate thing in terms of the defence of this country. I am planning that we will need to look at the Spending Review period to devote resources to the early stages of this process in terms of that assessment.

Q366 Linda Gilroy: It is argued that deterrence is not only about threatening nuclear retaliation in response to an attack, it can also be about preventing that attack through the use of missile defence. I do not think the White Paper covers that. Why not? Does the Government have a position on missile defence?

Des Browne: I think the answer to that is we did not address the issue of ballistic missile defence because we were considering the future of our existing nuclear deterrent in relation to this. We do play a role in ballistic missile defence and we agreed in February 2003, I think it was from a request from the United States, to upgrade RAF Fylingdale’s early-warning radar for use in the US ballistic missile defence system. We are also working with the United States and NATO to understand the political and operational implications of territorial ballistic missile defence and to assess the feasibility of the technology involved. We have made no decision on whether to acquire such a capability but, never mind the paper I am reading to you, the position is that missile defence is exactly what it says on the tin, “defence against missiles”. This system is designed to be a deterrent to a nuclear threat however it might be delivered to us.

Q367 Linda Gilroy: So presumably if we did not have that deterrent we would have to consider investing more in missile defence?

Des Browne: It is helpfully pointed out to me that in box 3.1 on page 21 there is a reference to ballistic missile defence in the context of responses to counter-arguments.

Q368 Linda Gilroy: What page is that on?

Des Browne: It is on page 21. To be fair, it is not part of the core of the argument, it is a response to a counter-argument, the sort of counter-argument that you were rehearsing there.

Q369 Linda Gilroy: Presumably if we did not have the deterrent then we would have to think of investing money to a greater extent in missile defence which needs to be put into any equation of working out what we spend on defence capability.

Des Browne: It is undoubtedly the case that if we did not have the deterrent and if we did not have the effect by that deterrent to deter the threat of an attack of the nature that this deterrent is for then we would be in a situation where we would have to either rely upon others to provide that for us or find an alternative system, but by definition a less effective system in my view, to deter such a threat and, of course, significant investment in missile defence may be part of that but, as I have already pointed out, that is one only way of delivering a nuclear threat and it would not have the comprehensive deterrent effect that we believe our current system if we invest in it can continue to have.

Q370 Mr Jenkins: Minister, you said we may have to rely upon others to provide this ballistic missile defence. By “others”, surely the only country that could provide it is the USA. Are there plans for us to be taken under the shield or umbrella of the USA for missile defence?

Des Browne: No. I was asked by Ms Gilroy to confirm that if we did not have a nuclear deterrent then we would have to have some other form of defence and of necessity that would involve expenditure, and maybe quite significant expenditure. I was just describing where we would be if we did not have a nuclear deterrent, but as a matter of fact we do have and we are able independently to be able to deter aggressors in the way in which we have successfully been able to do over the last 50 years. Far from relying on others or moving under the wing of others, our plans and, indeed, our recommendation to Parliament in the White Paper, the whole purpose, is to say we should continue to have independent—

Q371 Mr Jenkins: As regards the umbrella of missile defence, I take it that is a maybe?

Des Browne: I am sorry, Mr Jenkins, could you say that again?

Q372 Mr Jenkins: Are there any plans for us to negotiate with America to be taken under their umbrella for missile defence? You gave a long answer but you did not actually say “yes” or “no”, so it is a maybe.

Des Browne: I think everybody knows what our position is. We are working with the US and NATO to understand the political and operational implications of territorial ballistic missile defence and to assess the feasibility of the technology involved but it is early days. When we have done that
Des Browne: If by the recent events in China, other countries whose alliance and relationship we value in terms of our commitments to each other to defend each other in the context of the agreement that we have. Of course all of that is there. Indeed, we have in my view an obligation in terms of our membership of that alliance to provide a degree of reassurance and support to others as a nuclear weapon state in that alliance, and indeed that is expressed in the strategic documents of NATO. People say to me, “Why do other countries sleep in their beds safe at night in the knowledge that they do not have a nuclear deterrent?” and substantially that is because we and France and others with whom they have an alliance do have, because we have accepted an obligation to provide them with just that assurance.

Mr Hamilton: So there are no examples you can give of our taking that decision for our Armed Forces to go into conflict without discussing with our allies and so on?

Q375 Chairman: Sierra Leone. Des Browne: Sierra Leone immediately comes to mind but I am sure there are others. I did not prepare myself for that sort of question and that is probably my mistake.

Q376 Mr Hamilton: It is only an answer to the independence point that you continually make.

Des Browne: I think the answer to that of course it is not unreasonable for us to have alliances with other countries. That is why we are a member of NATO and that is why as a strategic defence alliance we are so supportive of it. The first point about independence in relation to the nuclear deterrent is that it is entirely operationally independent and we jealously guard that operational independence. We go to great lengths to ensure that we will make the decision as to whether or not to use it, and indeed it will be made by our Prime Minister, and there are all sorts of locking devices to ensure that is the case. We are absolutely certain and reassure everybody consistently that there cannot be interference with that operational independence. As I say, we jealously guard it; we go to great lengths for ever to ensure that it is operationally independent, and, secondly, that it generates this independent centre of decision-making that adds to the ambiguity of our posture in relation to any potential aggressors. Those are the two aspects of independence about the deterrent that are important. I think people have to understand that that is all to be seen in the context that we are in an alliance, and we are in an alliance not just with the United States of America, which is a nuclear weapon state, or France, which is a nuclear weapon state, but also with other countries whose alliance and relationship we value in terms of our commitments to each other to defend each other in the context of the agreement that we have. Of course all of that is there. Indeed, we have in my view an obligation in terms of our membership of that alliance to provide a degree of reassurance and support to others as a nuclear weapon state in that alliance, and indeed that is expressed in the strategic documents of NATO. People say to me, “Why do other countries sleep in their beds safe at night in the knowledge that they do not have a nuclear deterrent?” and substantially that is because we and France and others with whom they have an alliance do have, because we have accepted an obligation to provide them with just that assurance.

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Q376 Mr Hamilton: It is only an answer to the independence point that you continually make.

Des Browne: I understand that, but I do not think that whether or not we have in the past and in the immediate past worked with coalition partners or have been parts of effective coalitions detracts from the importance of the independence.

Q377 Chairman: Secretary of State, can I ask one small question? Would you accept that Trident has nothing to do with defence but that it is all to do with deterrence? It is not an umbrella or a shield; it is a sword?

Des Browne: That is a small question but it is a very interesting one and I am reluctant to immediately jump to an answer to it until I have thought about it. My instinct is to say to you, Chairman, that it is about deterrence but I think deterrence is a sub-set of defence.

Q378 Chairman: Does anyone want to add anything?

Des Browne: It was a challenging enough question! Chairman: No! We will move on to continuous-at-sea deterrence.

Q379 Willie Rennie: The White Paper states that “currently no state has both the intent to threaten our vital interests and the capability to do so”. Given that that is the case, that there is no immediate or direct threat, why do we have continuous deterrence at sea?

Des Browne: The fundamental answer to that is because continuous-at-sea deterrence is at the heart of having a credible deterrent. It is not just about defending against the threats of the particular day. It
is about adopting an operational posture that produces an invulnerable and assured deterrent, which is particularly important to us as we have, uniquely among nuclear weapon states, a single system. This means that we can keep the deterrent minimum, we can keep it cost effective, we can keep it non-provocative, and it also means that we can avoid unnecessary escalation in a crisis should one develop. It ensures, because we keep a boat at sea all the time, that we cannot be prevented from deploying a submarine in a crisis and, as I have already said, our 300th operational deterrent patrol will be completed this year. It is an opportunity for me to pay tribute to the Royal Navy which has maintained that defensive posture for us for some significant period of time now, requiring crew to be away from their families and friends for significant periods of time. To dismantle all that: the combination of those people who are prepared to do it, our ability to be able to consistently test when we are at sea, our ability to be able to do what we need to do, would be a very serious step and I believe that if we did not continue that we could not be certain that we could recreate it, that we could step it up in the timescale that we might need to if the need arose at some time in the future. That is why we continued to do it once we had started to do it because we are able to do it. It is very demanding and every time we deploy it we deploy it operationally. This is not practice. These people are actually doing the job and they have to maintain a very high level of readiness, a very high level of expertise, a very high level of professionalism. We ask them to do a very difficult job and we should maintain them at that level. I am told by the experts, and the Rear Admiral might want to confirm this, that if we have to maintain our people-based skills to do that then we have to maintain it at that level.

Q380 Willie Rennie: I am obviously not an expert in these areas but is there not a possibility of doing a kind of random approach to deterrence at sea where you can vary the length of time that we are at sea and not always have a continuous deterrence? Is that not a possible option?

Des Browne: I am no expert either but can I just say to Mr Rennie that I came to this job as the Secretary of State for Defence with a degree of scepticism about continuous-at-sea deterrence. I asked all of those questions in my early days in the department, and some of the people here will remember me asking them, just simple questions like, “Why do we need to keep a boat at sea all of the time? Why do we need to do this when we are saying that at the moment there is no capability and intent that amounts to a threat?” I have to say that as I have come to understand the nature of what we are doing and what we are asking people to do, and, importantly, the effect that deploying a submarine into an environment of conflict or potential conflict might have on that, the aspect of this that most persuaded me was the need to be able to maintain these boats at an operational level, which was a very high and demanding thing to do, and our ability to be able to step that up. I have come to the view that it is a key strand of maintaining a credible deterrent in this form. I do not know whether the Rear Admiral wants to add to this but he is among those who have persuaded me of this and I seek to share with you the way in which I was persuaded.

Rear Admiral Mathews: I have little to add to what the Secretary of State has said apart from the fact that it drives a real ethos into the programme and I do not think you can put a value on that. You have to be part of it to understand it. The maintenance of continuous-at-sea deterrence and the demands it places on the system and the tests it places on the system are of real value. It drives operational preparedness, it drives crew training, it drives the whole way the team operate. I do not know how you value such a thing as ethos but I think it is absolutely pivotal to the way we have run this programme and would wish to continue to run it.

Q381 Willie Rennie: I have to concur with the comments about the submariners. I had the benefit of going up to Faslane and the professionalism was quite impressive, and how they can live in those tough conditions for such long periods of time is beyond me, I have to say. The Prime Minister said that you might go down to three boats in the future, and we might get that decision at a later stage, and still have the continuous-at-sea deterrence. What cost savings would be involved in going down to three boats and roughly what time will you make that decision in?

Des Browne: That is an ambition and it is an ambition we have put in the White Paper as a challenge to those who will be doing the concept and assessment phase of this process, but we are not certain that we can maintain continuous deterrent patrols in the future with three submarines. I have to say, and the White Paper says this, that from the evidence of Resolution and Vanguard four hulls were required to sustain continuous patrolling but, as the White Paper says, once we are clear about the design, about the operational procedures, the maintenance regimes for the new submarines, we will reach a conclusion about whether we need three or four hulls to sustain continuous patrols. Apart from all the issues that we have already discussed, continuous-at-sea deterrence is important in terms of the invulnerability of our system and I think people accept that now. If all the boats were in port at any one time our deterrent would be vulnerable. It could be attacked in port, as it were, but keeping one boat out there all the time means we can take advantage of the opaqueness of the sea, which we have considered. We certainly will not take risks. At the end of the day this will be a very hard-nosed decision.

Q382 Mr Borrow: Secretary of State, you have dealt with the issue of the UK moving from continuous-at-sea deterrence to basically mothballing submarines and then bringing them back if the situation changed and the risks inherent in doing that, but it has been suggested that if we were not
using the submarines round the clock that would extend the life of the existing boats. Is there any truth in that?

Des Browne: Not in my understanding but I will defer to the Rear Admiral on the detail of this. The critical time from the point of view of when we measure the life of a boat is from when the reactors first go critical. My understanding is that you may well be able to bring the boat in but you cannot switch the reactor off and there are other parts of the system which will age no matter whether the boat is at sea or not, but I am sure the Rear Admiral will be able to give you more detail.

Rear Admiral Mathews: There are two parts to the answer. First, there is the crew, and one of the reasons we need to keep operating submarines is to maintain our operational capability to operate them, and so training and operating them is a vital part of that brief. The second thing was about could we just wrap them up in cotton wool and bring them out when we need them. It would help to extend, for instance, the core life. We put a core in these submarines now that will fuel them for around 20-25 years. We planned on 25 years for an SSN and that is what this core was designed to do. For an SSB it will be slightly less because the boat is bigger and we use them in a slightly different way, so we would have fuel. There are other bits of the boat, for instance, the hull, and Professor Garwin mentioned hull fatigue. Hull fatigue is not an issue for the UK. The hull itself is good for as long as we want to operate these submarines, so you are not making savings there. However, there are issues just about the ageing of things like cables, which do not depend on operating; it is a time-related thing. There is still a whole host of things that you would have to do if you just wrapped them up. Other parts of the submarine you would continue to operate very likely, such as, you have to remove heat from the reactor because it continues to produce heat, so you have to run pumps. You have to maintain the chemistry, so there are things you are doing and there is therefore maintenance you have to do. It is not a straightforward “if you just shut them down for five years you gain five years in their life”; it would not be like that.

Q383 Chairman: Secretary of State, am I right in thinking that you have to get away at quarter to four?

Des Browne: It would certainly be helpful, yes.

Chairman: We will do our utmost to get you away by then.

Mr Jenkins: I expect a note on this then rather than going through all the figures, Secretary of State, but we are told it is 17 years between making the decision and getting one in the water, but that would take us to about 2024, yet our first one was out of service in 2002, so there is a two-year gap, so we would be down to three ageing boats to keep continuous-at-sea service, and then if we do that we would have the three boats but then we would have six years and if we cannot make the decision at the end of six years that takes it a bit further. Can you give us some indication on that timescale of when the existing boats are going to go out, when the new boats are going to come in and when the decision needs to be made to add the fourth boat, and how do you get the experience of running three boats but then make the decision in time, sort of thing? Would you let us know about the thinking on that, please?

Q384 Chairman: Would it be possible for you to send us a note?

Des Browne: I am happy to write about that.

Mr Jenkins: If you would write it would be very helpful.

Q385 Chairman: Although to some extent it is covered in your memorandum.

Des Browne: It is, yes.

Rear Admiral Mathews: It is the same question we virtually answered at the last session.

Q386 Robert Key: Secretary of State, the United Kingdom is a signatory to the Non-Proliferation Treaty and the White Paper says that we are fully compliant with all our NPT obligations, and the White Paper goes on, “Nevertheless, we will continue to press for multilateral negotiations towards mutual balance and verifiable reductions in nuclear weapons”. What is the Government currently doing to press for these multilateral negotiations?

Des Browne: Mr Key, we not only say that; we actually set out in some detail in a fact sheet and an annex to the White Paper itself how we address our international legal obligations and particularly the nuclear Non-Proliferation Treaty, so there is no need for me to read that. In summary, and we have set out in the White Paper what we have done over the last 10 years in dismantling our maritime tactical nuclear capability and the RAF’s WE177 freefall bomb, reduced the maximum number of operational warheads, and our ambition is to reduce that further, and ceased production of fissile material for nuclear weapons. We have in my view, and I think this has been recognised even in evidence before this Committee, a good record in living up to our international obligations in this regard. For the future, we continue to support and we have made progress in 13 practical steps towards the implementation of Article VI agreed in 2000: we have ratified the Comprehensive Nuclear Test Ban Treaty; we have increased our transparency by publishing historical accounting records of our defence fissile material holdings; we have pursued a widely welcomed programme to develop expertise in methods and technologies that could be used to verify nuclear disarmament on which we have produced a series of working papers culminating in a presentation to the 2005 NPT Review Conference. Looking to the future, our priority remains to press for negotiations in the Conference on Disarmament of the Fissile Material Cut-Off Treaty; we welcome the draft text which the United States tabled last year; we hope that all concerned are able to accept the very broad mandate proposed and agree to open
negotiations towards a treaty without delay, and we are also actively engaged in the global initiative to combat nuclear terrorism where we will be playing a key and active role in shaping and contributing to the forward-looking programme of this important new development. That is all to be read in the context of what we have already put into the public domain with the White Paper and in the accompanying fact sheet.

Q391 Chairman: Will you not answer my question, Secretary of State?
Des Browne: I thought I did answer your question, Chairman. My view is, as I recollect the answer I gave you, Chairman, was that I thought that deterrence was a sub-set of defence.
Chairman: Ah, right; I see.

Q392 John Smith: Much has been made from some quarters about the impact of the White Paper on our international reputation in the field of disarmament and non-proliferation. I do not know if any of our witnesses can respond to this question, but has there been any response since the White Paper was published on 4 December?
Mrs Leslie: I can reply to that if you wish. Only one country has actually issued any public statement about that and that was South Africa, which was indeed critical, but we have had contacts First of all, after the Prime Minister had made his announcement we used our overseas network of Foreign Office posts to brief all countries who would have a legitimate interest in this, all our NATO allies, all the other nuclear weapon states, all other countries who are taking an active role in the Conference on Disarmament in Geneva, in order to explain what the Government was saying in the White Paper and what the basis of that was and to talk to them about any further questions they had. We found a gratifying degree of understanding for the Government’s decision on the part in particular of our NATO allies but also a large number of other countries. There were one or two countries, and these were diplomatic exchanges and I would rather not name them but it was only three or four, that were critical and they were people who perhaps we had expected to be critical on the basis of the stance they very often take in the Conference on Disarmament, but we were quite pleased by the degree of understanding for the nature of the decision that the Government was taking. One other point which is perhaps relevant, and also, I think, relevant to the Non-Proliferation Treaty and the 13 practical steps there, is that a number of countries went out of their way to congratulate the Government on the degree of transparency it had gone in for in the White Paper. Transparency, of course, is one of the practical steps among these 13 practical steps.

Q393 Chairman: Secretary of State, can I ask a question about the number of missiles in the submarine, 16 on a Vanguard? Is there any need to have 16 missile tubes on a successor? Could we make do with perhaps 12? Would it have any effect on the deterrent capacity of the submarine, or would you like Rear Admiral Mathews to answer that?
Des Browne: I will answer the question. I am sure Rear Admiral Mathews will add to the answer, but I suspect that it will not come to much more than that we are at the very beginning of the design phase and, of course, we will have at the forefront of our mind our policy obligation to have a minimum
deterrent. All of these options will need to be explored in depth by the MoD and the industry team but I am not in a position at this stage, and I doubt if the Rear Admiral will be, to be any more specific than that, but I will give him his opportunity.

**Rear Admiral Mathews:** I think behind part of the question is, is the number of missile tubes a major cost driver to the design of the submarine? It is not a major cost driver. It will make a contribution, but taking four tubes off does not save a quarter of the cost of the submarine, for example.

Q394 Linda Gilroy: The White Paper says that the design of Vanguard’s successor will seek to maximise the commonality with the current submarines, but, in fact, if we want to drive through-life affordability is there not a case for a completely new design?

**Rear Admiral Mathews:** There is a case for a bit of both. What we have to do here is to take the through-life approach. We have to get the support community tied into the build community better, and that is part of our intention for this project should it be approved, and we have to take a proper through-life approach. Clearly some parts of the submarine are obsolete and that means we have to redesign those, and we have to be more reliant on, where we can, commercial, off-the-shelf type technology rather than do what we have done with Astute, which is end up with a submarine that is pretty bespoke. In big handfuls, two-thirds of what we put into Astute is made for Astute and Astute only. That makes for a very expensive submarine design and we need to learn from that.

Q395 Linda Gilroy: From that I take it that there might only be reasonably modest changes in the new submarine. No? You are shaking your head.

**Rear Admiral Mathews:** No.

Q396 Linda Gilroy: I think at the bottom of this question is that a lot of people are very sceptical about why it should take 17 years, why the decision now if there is a degree of commonality, whatever that degree is, with the current submarines? Can you convince those sceptics rather than me that 17 years is necessary?

**Rear Admiral Mathews:** Let us start with the design. There are a lot of people who say, “Why do you not take Astute, cut it in half and stick your missile compartment in?” If we do that let us just think about what we end up with. We end up with a bigger submarine, so we need bigger ballast tanks. We need more air then to surface the submarine, so we need bigger air bottles, we need bigger compressors, we need more electrical power to run those compressors. You need more people, so you need more accommodation. You need more air for them to breathe; therefore you need more atmosphere purification equipment. You need a bigger galley to feed them. People produce waste. It comes in liquid, solid and gaseous form, all of which you have to manage. The point I am making is that once you start unpicking a submarine design, because it is so integrated what you have to do is that you unpack one bit and you just open Pandora’s Box: you end up redesigning it all whether you really meant to or not. We tried to do it when we went from Valiant. We said, “Right; we will just cut it in half and put a missile section in and call it Resolution”. There is very little of a Resolution class, apart from the engine room, that looks like a Valiant class submarine. It was a completely different design in the end. It is not about taking an Astute. It is about taking some of the systems, some of the components, some of the equipments and then designing them where we can into the future and saying, “Can we have common systems across these classes of submarines?”, but it is also about taking Astute and using Astute as the vehicle to spiral development into the future classes, and that is what we want to do with the back end of the Astute programme, to de-risk the deterrent programme by doing those changes to the Astutes.

Q397 Linda Gilroy: I understand why you are making the comparison with Astute but the people who are sceptical about very often tend to make the comparison with the current Vanguard class. Just now you said, I think pretty well, and I am paraphrasing, that the hull could go on for a great deal longer.

**Rear Admiral Mathews:** Yes.

Q398 Linda Gilroy: As an idea of the relative proportion between what goes into the design of the hull and the stuff that is inside it, I have had the advantage of seeing what goes on at Barrow and Devonport and just how much like rocket science all of that is. It is like putting a spaceship into outer space, which I think many people do not really understand, but therefore why can we not just take Vanguard as it is and, with the things that you said needed to be changed, just slot that into the hull?

**Rear Admiral Mathews:** But it is back almost to the same arguments we used with Astute. There are things in Vanguard we would not put into Vanguard in the future because we could not afford to operate 50- to 60-year old equipment, as it would be almost when it went into service, let alone when it came out of service, so you again start changing things, and once you start making changes you are into a redesign. I used the analogy last time of building an onion but it is working from the outside of the onion and trying to put the layers inside the onion to finish it. A submarine is like that, so once you start unpicking it, because it is so integrated it is quite a difficult process, and so why we have argued the 17-years is that it is about two years to get through our concept stage: are we going to unpick a Vanguard design, are we going to unpick the Astute, how many missile tubes, those sorts of decisions; seven years in design to come out of that with a mature design that we do not want to change once we start construction because change, once you have started building (and that is my onion again), means you have to unpick it all to work out again, so it is about seven years to design, seven years to build, and
then the final bit is taking it on sea trials, testing it, proving it, training the crew, putting the missiles in, test-firing the missile and putting it on operational patrol: total duration about 17 years. How do we compare with the rest of our competitors, so to speak? The same as the Americans, they think about the same time; the same as the French. That 17-year model we are pretty confident about.

Q399 Linda Gilroy: The other million-dollar question is why do we not buy it from the Americans? Would it not just be cheaper just to do that, like we do with the missiles?

Des Browne: In a sense there is a political answer to that: because we do not think they would sell them to us, and in any event people do not sell—

Q400 Linda Gilroy: Why not? They sell the missiles to us.

Des Browne: People do not sell these systems to each other but part of the reason for that, of course, is that once you have them you have to look after them, and because you need to be able to look after them you need the skill base to look after them, and the technology is very highly secret.

Q401 Robert Key: Secretary of State, in his letter to the President the Prime Minister last December specifically, in that exchange of letters, spoke about increasing collaboration on the construction of submarines, and in his reply of the same date the President agreed and said there should be more collaboration on the construction of submarines, but if they are never going to sell them to us what is the point of that? Why did they say it?

Des Browne: I was asked a very specific question about why do we not just buy them from the Americans and I gave a straightforward answer: I do not think they would sell them to us, but in any event we have a different nuclear regulation system from the United States of America, so we would then be faced with the problem of buying something that was built for a regulation system and then adjusting it to suit our regulation system. The other point is that the indications are that it would probably cost more.

Q402 Robert Key: So why did they bother to exchange letters saying they would do that?

Des Browne: The answer to your specific question is that, of course, we do collaborate with the Americans and have done for 40 years or longer on many aspects of defence capability.

Q403 Robert Key: But not the construction of submarines?

Des Browne: I would need to check precisely if we have ever collaborated with them in relation to submarines.

Q404 Robert Key: I assure you it is in those letters.

Rear Admiral Mathews: If I can assist the Committee here, we effectively bought the Dreadnought design lock, stock and barrel from the Americans. Admiral Rickover, who was the father of the American programme, insisted at that stage that that was the end of collaboration in a sense, because what he was trying to do by that decision was to say to the British that we had to be responsible for this submarine, we had to understand its design, we had to be able to operate it, and we had to be able to maintain it through life, and so the American position was, “You have got to own what we have just given you”. That position has not really changed. The Secretary of State is absolutely right about regulatory regime. There are some major implications there. You cannot just take an American design and expect to license it in the UK. There is a cost issue because the American submarines are different and we would be operating mixed fleets as well, so there are not real advantages and at the end of the day, if we go down that route that would, I think, shatter the confidence of the UK submarine building industry, and part of the evidence that you have had before you has been about how to re-establish that confidence and sustain it.

Q405 Mr Borrow: I just want to get absolutely clear that the 17 years is what is actually needed to design and build a new nuclear-powered submarine to put nuclear missiles on, that that cannot be shortened at all and that that 17 years has nothing at all to do with the needs of BAA systems in constructing the Astute submarines and their long-term timetable. I am not arguing that that is wrong if that is part of the decision, but you are saying quite clearly that 17 years is the minimum that we need to do it and that has nothing to do with the industrial base arguments, nothing to do with fitting it in with the Astute programme at Barrow?

Rear Admiral Mathews: The answer to your question is that 17 years is the time we believe is the minimum needed to do this.

Q406 Chairman: The White Paper says the warhead should last until 2020. Will we need a new warhead then?

Des Browne: My answer to that is that we have been as open as we can, I think, in our future warhead plans. We believe it will last until at least the 2020s but we are not clear on the longer term position and that is why we continue to invest in the facilities at Aldermaston. Once we have a better feel for its life, and this is unlikely to be before the next Parliament, as we say, we will decide whether it is better to refurbish our existing stockpile or develop a new warhead. In the interim we will look at replacement options to ensure that we have a firm basis on which to make our decisions, so we are in an area of consideration.

Mr Bennett: I think that is fine.

Q407 Chairman: So there is no decision that is taken as to whether the warhead is going to be redesigned or designed to the same design?
Des Browne: No decisions have yet been taken and I think it would be an error for me to pre-judge those decisions or to indicate how I think they may come out because I simply do not know.

Q408 Chairman: Do you have a view as to whether, if there is any need for such a redesign, it would fall within our legal obligations under the Non-Proliferation Treaty?
Des Browne: I do not have a mature view in relation to that. That is to some degree speculative in terms of the environment I have been working in and preparing for because we are not having to make that decision.

Q409 Chairman: Fair enough.
Des Browne: If it is absolutely necessary for the Committee to have an answer to that then I will try to get an answer to the Committee.

Q410 Chairman: I think it is, as you suggest, too speculative and I will not pursue it.
Des Browne: Thank you.
Chairman: If there are no further questions I will simply say thank you very much indeed for helping with that final evidence session.
Written evidence

Memorandum from Aldermaston Women’s Peace Campaign

1. SUMMARY

This submission makes brief reference to the general content of the White Paper, but focuses specifically on elements of the White Paper relevant to the Atomic Weapons Establishment (AWE) Aldermaston, and in particular, Chapter 7, warhead replacement.

Aldermaston Women’s Peace Campaign (AWPC) will argue that the Defence White Paper fails to reveal the true extent of the Government’s progress on developing a successor system; that it asks parliament to approve in principle the development of a new warhead without giving any details about the programme; while having already made the decision in advance of the debate.

We are submitting this evidence in the tradition of the Greenham women who contributed to nuclear disarmament, as enshrined in the 1987 INF Treaty.

We note that the promised consultation of the future of Trident has not taken place; that this Select Committee is not part of any official consultation, and that the UK Government have taken measures to prevent lawful and peaceful protest at AWE Aldermaston.

2. RECOMMENDATIONS

Aldermaston Women’s Peace Campaign (AWPC) are calling on the government to come clean on the fact that at AWE Aldermaston, the Ministry of Defence has already started work to build facilities to test, design and build new warheads, in advance of any parliamentary decision.

Although we at AWPC see the debate as a “done deal”, we continue to call for an open and transparent public debate on whether nuclear weapons provide us with the security we really need.

AWPC calls for a halt for all building work at AWE Aldermaston until such time that the British people are given the opportunity to inform to the government whether they really want a new generation of nuclear weapons.

3. GENERAL COMMENTS

While AWPC welcomes the publication of the White Paper in setting out the Government’s intentions with regard to the replacement of Trident, we note that there is no accompanying process to ensure the promised public debate.

With regard to the forthcoming parliamentary debate, we note that:

1. The White Paper was published in advance of the conclusion of the DSC’s series of inquiries.
2. Although several options are discussed in the White Paper, they are not presented as choices; all options not favoured by the government are dismissed.
3. There is no consideration of the option not to replace Trident.
4. There is a failure to abide by the letter and spirit of the Nuclear Non-Proliferation Treaty (NPT).

4. INTRODUCTION

AWPC condemn the Government’s White Paper for its commitment to retaining a UK nuclear weapons system and for its failure to come clean about measures the government has already taken at AWE Aldermaston to build new facilities to test, design and build a new generation of nuclear warheads.

In this submission, and in our previous submissions to this committee, we have shown that the financial commitment already made at AWE Aldermaston is unrelated to the continued maintenance of the extant stockpile (“stockpile stewardship”), but relates to the construction of new facilities. Through references to AWE ML’s public statements and publications, and other documents already in the public domain, we have demonstrated that a substantial investment has already been made in facilities, and in the recruitment of staff, which will allow the development of a new warhead system.

We note that in their previous report, the committee noted that they were “less convinced that the investment in the new Orion laser, the supercomputer and hydrodynamics facilities could not have waited for a decision in principle on the future of the UK’s nuclear deterrent”.

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1 DSC, Fourth Report, Recc 25, page 42.
We again argue that the Government should inform parliament and the DSC about the detail of their financial and contractual commitments already undertaken at AWE Aldermaston, and that those details should have been included in the White Paper.

5. WARHEAD REPLACEMENT

Although the White Paper proposes in section 7 a decision in principle to replace the Trident Warhead after 2025, it gives no detail about the plans for the design, capacity and killing power of the warheads proposed. The Government is, in effect, asking Parliament to consent, in both policy and financial terms, to an unknown.

We submit that although the Government state that the decision on warhead replacement does not need to be made until the next parliament, they have advanced plans, as we have shown in our two previous submissions, and AWE Aldermaston is already at an advanced prototyping stage.

In section 7 of the White Paper, the Government states "Decisions on whether and how we may need to refurbish or replace this warhead are likely to be necessary in the next parliament." Given that work had already started at Aldermaston when the government was stating in its December 2003 White Paper that "Decisions on whether to replace Trident are not needed this Parliament but are likely to be required in the next one", it seems likely that by the next Parliament, work will be at such an advanced stage that Parliament will merely be required to rubberstamp a decision made years previously.

It is clear from the timeline that the death-span of the current warhead will last until the 2020s, when the new submarines and the life-extended missiles will be built. Although the Government say they will not have decided on the warheads until the next Parliament, this decision has already been made: in the commitment to a new delivery platform; in the declared intention of producing new missiles "in collaboration with the US"; the warheads too, will be produced in conjunction with the US, as was the Trident system, under the 1958 Mutual Defence Agreement. So, we wonder, where are the details?

6. DECISION MAKING

The decision to replace Trident missiles, and or the Trident system, was flagged up in the 1998 Strategic Defence Review. However, in March 2000, shortly before taking their contract to run AWE, Dr John Rae (Chief Executive, AWE ML) told the AWE Local Liaison Committee that, “Having decided to make the UK deterrent smaller MoD expects a lower cost, therefore the funding from MoD will come down to a level which allows the programme to be delivered. As a rough guide there will be a 1/3 reduction in staff and funding will be reduced on a similar basis.” It would therefore appear that some time between March 2000 and July 2002, the decision to build new warheads was made, and subsequently confirmed in the publication of AWE Aldermaston’s Site Development Strategy Plan. The extension AWE ml’s contract to 25 years was announced in early 2003.

In our two previous submissions, we presented evidence to inform the committee about the nature and extent of investment at AWE Aldermaston, arguing that it far exceeded that required for stewardship of the extant stockpile and indicated that the Government has already made substantial progress in making decisions critical to the development of a successor to the present system.

We suggest that Government’s claim that no decision has been taken on whether to replace the warhead or not to replace them is not true.

The Site Development Strategy Plan in both July 2002, as updated in and fleshed out more fully in the Site Development Context Plan set out plans to construct a range of facilities which are now recognised by most professionals and experts working in this field to be unnecessary solely for maintenance of the current system, but essential for the development of a new weapons system.

We suggest that the Government have taken a pragmatic approach to the truth where the decision-making process is concerned. Where Watergate gave us the non-denial denial, John Reid, in his previous role as Defence Secretary, has given us the non-decision decision, as the following illuminating statement reveals:

“...My hon Friend posits something that envisages a qualitative and quantifiable watershed between the maintenance of facilities, whereby they are updated and rendered continually safe so that our existing nuclear deterrent is made more effective, and, a new weapon. The world does not work...”

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3 White Paper Table 7.1.
4 See http://physicsweb.org/jobs/jobdetail/6853
7 http://www.awe.co.uk/main_site/about_awe/community/local_liasion_committee/index.html
8 See http://www.awe.co.uk/main_site/scientific_and_technical/publications/Strategy_Plans/index.html
10 See, for example, evidence presented to the fourth DSC by Scottish CND, Ev 99–Ev 101.
Influences on decision-making

The decision-making process in relation to the procurement of a new warhead system is subject to external pressures including the relationship between the UK and USA under the 1958 Mutual Defence Agreement, and significant commercial interests.

In para 7–3, the Government state, that the “[Trident] warhead was designed and manufactured in the UK by AWE, although it was decided that it would be more cost effective to procure certain non-nuclear components of the warhead from the United States”.

What they do not state is that the UK version of the Trident warhead is based on a US system and was produced in conjunction with the US, although the White Paper acknowledges in sections 4–7, that it makes no sense to be operationally independent from the US, and it would make sense to carry on in the same way.

All UK nuclear weapons have since 1958 been developed by AWE Aldermaston in conjunction with their colleagues at US nuclear establishments and, as have we previously reported, scientific and other collaboration continues through regular visits and exchanges. We note in particular, collaboration, in both 2005 and in 2006 on subcritical warhead tests. The nature of these collaborations has already been presented to you in detail in previous sessions.

We note that the White Paper was published one week before a US Freedom of Information inquiry revealed evidence of the United States assistance in the development of its nuclear warheads. According to the recently released document, half of the tests conducted between 1999 and 2001 at US laboratories were to assist with Britain’s Trident system. Although claims that the weapons were designed in Britain, the tests conducted used the American W-76 submarine based warhead. Commenting on this, a spokesperson for the Federation of American Scientists said, “This FoI document links the British warhead design directly with tests conducted used the American W-76 submarine based warhead.”

On 7 January 2007 the New York Times reported that the US Government was likely to announce its intention to pursue a new warhead programme the following week. Estimated to cost up to US$100 billion, Presidential authorisation would be required in the next one to two years, reportedly, engineering would begin in 2010 and warheads would be apparently in production by 2012. A happy coincidence for the US, were they to wish to take advantage of the sparkling new facilities at the Orion laser facility—due to be commissioned between 2008 and 2012.

Evidence we have previously put before the committee also suggests that the decisions which have already made have been fuelled by commercial interests rather than by the national interest. For example, we remind the committee one of the responsibilities of a “Lead Systems Engineer” which AWE are advertising is to “attempt to influence the MoD on warhead options”.

Timescale

Work on the construction of the new Orion laser has been progressing throughout 2006; AWE have recently purchased the world’s most advanced supercomputer (co-developed by Sandia National Laboratories in the US); submitted to West Berkshire District council for consideration on 22 January 2007 plans for a £60 million office building to house some of the 1,200 new staff it is currently recruiting; entered into contracts with hundreds of private companies; and will shortly submit plans for the construction of a new hydrodynamics facility. According to AWE ml—who manage the site for the government—the new developments are expected to be on the scale of Terminal 5 at Heathrow.

By the next Parliament, the Orion laser will have been commissioned, and—according to documents published by AWE [2 SCCP] many of the new facilities planned at AWE, (and which experts agree would only be necessary for the production of a new warhead, will have been built.

11 John Reid, Defence debate, House of Commons, 18 May 2005.
12 See, for example, http://www.timesonline.co.uk/article/0,,2087-2081514,00.html on the 2006 Krakatoa test.
13 See for example, submissions to fourth DSC by Dan Plesch (Ev. 105) and Scottish CND (Ev. 99–101).
14 See http://www.wagingpeace.org/menu/resources/sunflower/index.htm#b2 and “US Trident tests cast doubt over UK design claims,” The Herald, 12 December 2006.
16 Ev. 91–99; Memorandum from the Aldermaston Women’s Peace Campaign, http://www.publications.parliament.uk/pa/cm200607/cmselect/cmdefence/59/59.pdf
17 https://careers.awe.co.uk/wd/plsql/wd_pds?p_web_page_id = 30297
7. Costs

In section 5–11, Costs and Funding, the WP estimates “£2–3 billion for the possible future refurbishment or replacement of the warhead”.

AWPC does not consider this is an accurate reflection of the true costs.

It appears that, if a decision has not yet been made on refurbishment or replacement, this £2–3 billion must be in addition to the costs estimated in section 5-13, identified for continuing the “programme of investment in sustaining capabilities at the Atomic Weapons Establishment (AWE), both to ensure we can maintain the existing warhead for as long as necessary and to enable us to develop a replacement warhead if that is required.”

Additional funding for Aldermaston was announced in 2005, as a one-off investment over three years.18 This has to date averaged £350 million per annum over the years 2005–06 and 2007–08. However the White Paper states that—rather than as originally claimed—that there will be further investment, likely to cost “the equivalent of about 3% of the current defence budget (compared to about 2.5% today)”.

In addition to the above, the current 25 year contract held by AWE Aldermaston, runs at £5.3 billion.

So is the estimated £2–3 billion is in addition to the normal operational costs of running Aldermaston?—(which include maintaining the current warhead stockpile and transporting the current warheads back and forth from Aldermaston to Coulport for refurbishment).

As acknowledged in section 5–14 of the White Paper, once the warheads are built, further costs will be incurred to maintain the warheads and presumably continue to transport them back and forth between Aldermaston and Coulport for refurbishment.

According to reports in the national media, industry analysts are expecting an investment at AWE of around £12bn over the next 12 years.19 However, the government will not give any figures beyond 2007 until after the next Comprehensive Spending Review.

8. Legality

“Our decision to maintain the deterrent is fully compatible with all our international legal obligations.”

AWPC considers the designing, testing and building of new nuclear warheads to be in breach of our international treaty obligations and sets a very bad example to the rest of the world. The Government claims that, “Britain continues to set an example for others to follow in our commitment to work towards a peaceful, fairer and safer world without nuclear weapons.” This is more than disingenuous, it is a lie.

For legal obligations under the Nuclear Non Proliferation Treaty (NPT) we refer you to Philippe Sands’ recent opinion20; for the relationship between the Mutual Defence Agreement and obligations under the NPT, see Christine Chinkin and Rabinder Singh.21 We also note that the White Paper continuously refers to the need for nuclear weapons “to safeguard our vital interests”. It does not once refer to the need for nuclear weapons for “self-defence”, the only condition under which the ICJ was divided it its opinion on the legality of the threat or use of nuclear weapons. A minority of the judges considered it might possibly be legal to use nuclear weapons in self-defence.22

To justify nuclear weapons a climate of fear has to be created which is damaging in itself and destructive to our international relations, including on non-nuclear states and those who the government condemns for apparently wanting to develop their own.

We also consider that by developing the technology (the Orion laser) to test a weapon in conditions replicating a nuclear explosion, the UK government would also be in violation of the spirit of the CTBT (of which it is a founding signatory).

18 John Reid, Written Ministerial Statement in Commons 19 July 2005 (Hansard Volume No. 436, Part No. 36, Column 59WS)
19 See, for example, Daily Mail, 13 December 2006. See http://www.dailymail.co.uk/pages/live/articles/news/news.html?in_article_id = 422489&in_page_id = 1770
22 International Court of Justice Advisory Opinion of 8 July 1996 on the Legality Of The Threat Or Use Of Nuclear Weapons: “the Court cannot conclude definitively whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self-defence,” (summary, on matter E).
9. REAL SECURITY

As some of the women who contributed to nuclear disarmament, as enshrined in the 1987 INF Treaty, through protest at Greenham Common, we note that the government have been forced to rake up decades old Cold War arguments to support the proposals contained in the White Paper.

The Government is asking us to imagine a hypothetical enemy appearing suddenly at any point in the next 50 years even though they agree that the scenario they are “insuring” against is highly improbable. The idea that if we cannot guarantee that a ridiculously unlikely event may happen, we have to take extraordinarily dangerous and costly measures—which there is no likelihood would address the imagined threat—is dangerous. The government can justify almost any amount of political repression or aggressive military action using the imaginary mythical enemy.

Time has moved on, security threats are completely different. We therefore suggest that the debate is widened to include alternative notions of security, based on the experience and thinking of women in the global south—for whom security means access to water, to housing, to health, to education and to be free of violence.

For 22 years we have held a monthly camp outside the fence at AWE Aldermaston.

We are a witness to their preparations for war crimes. We watch their contractors coming and going—building the new facilities.

We watch their nuclear warhead convoys setting off to transport their deadly loads to Coulport (something which creates insecurity and environmental hazards on a constant basis on UK’s busiest roads).

We see increased police and military protection of nuclear weapons, and its impact on the public in the immediate area surrounding AWE’s Aldermaston and Burghfield, Devonport, Faslane and Coulport as well as every area the warheads are transported through.

In order to possess and deploy nuclear weapons, the UK Government has to interfere with the public’s freedom of movement, expression and privacy. In particular, this government, through the MoD, is actively seeking to deny the right to any form of peaceful protest at AWE Aldermaston in violation of the provisions of the Human Rights Act through the proposed introduction—outside of any parliamentary scrutiny—of byelaws which prohibit leafleting, demonstrations and meetings outside AWE Aldermaston.23

ENDNOTE

We congratulate the Defence Select Committee in inviting AWPC to attend the hearing, and in so doing, acknowledge women’s work for peace at all levels, in the UK and internationally.

Britain’s possession of nuclear weapons damages us ethically, spiritually and psychologically. The effects of possessing nuclear weapons will impact the thinking of both the threatened—and the aggressors—creating further insecurity in the world. Given that nuclear weapons are generally considered to be illegal under international humanitarian law, upgrading and expanding the facilities at Aldermaston “normalises” what should be inconceivable—a factory for indiscriminate weapons of mass destruction.

If the PM has to plant a few trees to offset the environmental damage of his overseas holidays, what can we expect him to do to offset the environmental impact of developing the next generation of UK nuclear weapons?

16 January 2007

Memorandum from the Campaign for Nuclear Disarmament

The government’s White Paper, The Future of the United Kingdom’s Nuclear Deterrent, is an inadequate and pedestrian response to the enormous security challenges facing Britain and the world today. It lacks any vision of how Britain can help take steps to shape the future security context, passively clinging to old arguments and justifications. It recognises neither the opportunities that are presented by new thinking on nuclear weapons in the post-cold war framework, nor the threats that are posed—and indeed exacerbated—by continuing its nuclear policy in the same old way. The White Paper also misrepresents both Britain’s obligations under the nuclear Non-Proliferation Treaty, and the position of the International Court of Justice on the use, or threat of use, of nuclear weapons. These points are explored in greater detail below.

23 “The Ministry of Defence has determined that replacement/new byelaws are required to control the following sites: AWE Aldermaston. It is therefore proposed that the Secretary of State for Defence will make new byelaws for the above sites under the powers granted to him by the Military Lands Act 1892”. For background to the proposed byelaws, see http://tinyurl.com/yd986
1. How the government fails to take steps to shape the future security context

The government argues that it is necessary to retain nuclear weapons for the purpose of “Insuring against an Uncertain Future”. The White Paper outlines an appalling string of possibilities, including: the re-emergence of a major nuclear threat; the emergence of more nuclear states; the possibility of state-sponsored nuclear terrorism; wider instability owing to weak and failing states; resource crises over energy and water; problems due to population growth, rapid economic development and climate change. Rather than looking to find ways to solve these problems, the government concludes that it is therefore necessary to go ahead with a new nuclear weapons system. But this decision will do nothing to reduce the risk of these terrible things happening. On the contrary it is a policy that will increase the risk it claims to wish to prevent, promoting a new nuclear arms race, and reinforcing the notion that building more weapons of mass destruction provides security. Many people have come to the view that a new approach is necessary. Many from across the party spectrum in Britain, who have strongly supported nuclear weapons in the past, have concluded that they are no longer relevant. This is also the case internationally. One of the most significant recent statements on this issue comes from the US, from Henry Kissinger, former US secretary of state 1973–77, George Shultz, former US secretary of state 1982–89, William Perry, former US defence secretary 1994–97, and Sam Nunn, former Chairman of the Senate Armed Services Committee. They note the current proliferation dangers and argue that “the world is now on the precipice of a new and dangerous nuclear era”. But they do not use this as an argument for the US developing new nuclear systems. Rather they argue that:

“Nuclear weapons today present tremendous dangers, but also an historic opportunity. US leadership will be required to take the world to the next stage—to a solid consensus for reversing reliance on nuclear weapons globally as a vital contribution to preventing their proliferation into potentially dangerous hands, and ultimately ending them as a threat to the world.”

They argue that there is an urgent need for a rekindling of the vision of Reagan and Gorbachev for a nuclear weapons free world, and for a consensus on practical steps to bring this about. Indeed, they outline several concrete proposals to work towards achieving the twin goals of disarmament and non-proliferation. This is clearly a path that can be pursued to help shape the future security context, rather than contributing to an escalation of nuclear tension and proliferation and then waiting for an inevitable nuclear conflict. But we do not get any inkling of this type of vision from our own government, in spite of its professed commitment to its obligations under the nuclear Non-Proliferation Treaty. We hear from the Prime Minister, in his foreword to the White Paper, that “None of the present recognised nuclear weapons States intends to renounce nuclear weapons, in the absence of an agreement to disarm multilaterally”. There seems to be no comprehension that Britain could itself take steps to promote such a development. CND and others have pressed the government to support Hans Blix’s proposal for a global summit on nuclear disarmament and non-proliferation, but this has not received a positive response. Proposals that Britain should give its support to the draft Nuclear Weapons Convention to ban nuclear weapons, lodged at the UN, are also turned down on the basis that this would cut across our NPT commitments. The logic is hard to follow. It appears that the government does not want to shape a different future, to find a way to promote a disarmament process, of which a decision not to replace Trident could be part. Through its short-sighted actions, the government is contributing to nuclear escalation and eventual nuclear war.

Recommendations

— To initiate a Global Summit on Nuclear Disarmament and Non-Proliferation.
— To support the draft Nuclear Weapons Convention, lodged at the United Nations.

2. How the government contributes to proliferation

When the government makes its “Responses to Counter-Arguments”, it fails to address one of the most compelling arguments against Trident replacement—that it will encourage nuclear proliferation. This point was made last year by Kofi Annan, who linked the failure to disarm with the danger of nuclear proliferation: “the more that those states that already have [nuclear weapons] increase their arsenals, or insist that such weapons are essential to their national security, the more other states feel that they too must have them for their security.” This point has also been made by Nobel Laureate Professor Sir Joseph Rotblat, “If some nations—including the most powerful militarily—say that they need nuclear weapons for their security, then such security cannot be denied to other countries which really feel insecure. Proliferation of nuclear weapons is the logical consequence of this nuclear policy.”

The failure of the nuclear weapons states to comply with their obligations under the NPT—taken together with an apparent orientation towards nuclear use by some of these states—has the real potential to create a tendency towards proliferation. This also exposes the nonsense of the deterrence argument, the logic of
which is that all states need nuclear weapons to protect themselves. Kissinger et al also draw attention to the problems caused by the failure of the nuclear weapons states to take steps to comply with their treaty obligations:

“The Non-Proliferation Treaty (NPT) envisioned the end of all nuclear weapons. It provides (a) that states that did not possess nuclear weapons as of 1967 agree not to obtain them, and (b) that states that do possess them agree to divest themselves of these weapons over time. Every president of both parties since Richard Nixon has reaffirmed these treaty obligations, but non-nuclear weapons states have grown increasingly sceptical of the sincerity of the nuclear powers.”

It is vital that sincere initiatives are taken, by the nuclear weapons states, towards disarmament, otherwise non-nuclear weapons states may conclude that there is no reason for them to stick to their side of the NPT bargain.

Recommendation
— To take a decision not to replace Trident and instead genuinely to pursue global disarmament initiatives.

3. How the government misrepresents Britain’s obligations under the nuclear Non-Proliferation Treaty

The White Paper describes Britain as a “recognised” nuclear weapons state as if this is some kind of legally accepted status. Actually, the term “nuclear weapons states” is just the way the NPT defined those states that had tested nuclear weapons before 1967, for the purposes of the Treaty. This is part of an ongoing attempt to reinterpret the NPT to suggest that the nuclear weapons states are somehow legally entitled by that Treaty to possess nuclear weapons. In November 2003, Defence Secretary Geoff Hoon stated: “Under the terms of the Nuclear Non-Proliferation Treaty, the United Kingdom, the United States, France, China and Russia are legally entitled to possess nuclear weapons”. This is nonsense. In fact, what that the nuclear weapons states are actually legally obliged to do, under the NPT, is work towards the elimination of their nuclear weapons.

Article VI of the NPT states:

“Each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament and on a Treaty on general and complete disarmament under strict and effective international control.”

This requirement was strengthened at the 2000 NPT Review Conference, with the addition of the commitment by the nuclear weapons states to “an unequivocal undertaking to accomplish the total elimination of their nuclear arsenals”.

Yet the White Paper states that “The UK’s retention of a nuclear deterrent is fully consistent with our international legal obligations.” However, recent legal opinion makes it clear that a replacement of Trident would not be acceptable under the NPT. In 2005, Peacerrights sought a legal opinion from Rabinder Singh QC and Professor Christine Chinkin on “The Maintenance and Possible Replacement of the Trident Nuclear Missile System”. In their opinion, the replacement of Trident is likely to constitute a breach of Article VI of the NPT:

“Enhancing nuclear weapons systems, possibly without going through parliamentary processes, is, in our view, not conducive to entering into negotiations for disarmament as required by the NPT, article VI and evinces no intention to ‘bring to a conclusion negotiations leading to nuclear disarmament in all its aspects’. It is difficult to see how unilateral (or bilateral) action that pre-empts any possibility of an outcome of disarmament can be defined as pursuing negotiations in good faith and to bring them to a conclusion and is, in our view, thereby in violation of the NPT, article VI obligation’.

Singh and Chinkin further hold the opinion that such a breach would be a material breach of the treaty:

“The linkage between the principles of non-proliferation and the obligation to negotiate towards disarmament shown by the negotiation history... indicate that Article VI is a provision ‘essential to the accomplishment of the object or purpose of the treaty.’ The non-nuclear weapon states required commitments from the nuclear weapon states as part of their willingness to accept non-nuclear status under the NPT and failure to comply with article VI thus, in our view, constitutes material breach.”

The final sentence quoted further indicates the significance of compliance with the disarmament requirements of the NPT. As explained in the previous section, for the nuclear weapons states to do otherwise will have a negative impact on the compliance of non-nuclear weapons states with the non-proliferation requirements of the NPT.
Ev 82  Defence Committee: Evidence

Recommendation

— To comply with the nuclear Non-Proliferation Treaty and begin negotiations in good faith towards disarmament, starting with a decision not to replace Trident.

4. How the government misrepresents the position of the International Court of Justice on the use, or threat of use, of nuclear weapons

The White Paper’s comments on the 1996 Advisory Opinion of the International Court of Justice misrepresent the Court’s position. The White Paper states that the ICJ “delivered an Advisory Opinion which confirmed that the use, or threat of use, of nuclear weapons is subject to the laws of armed conflict, and rejected the argument that such use would necessarily be unlawful.” In fact, the Court stated that “the threat or use of nuclear weapons would be generally contrary to the rules of international law applicable in armed conflict and in particular the principles and rules of humanitarian law.”

Within the team of judges there was some difference of view over the implications of the right to self-defence enshrined in Article 51 of the UN Charter. Nevertheless, 10 of the 14 judges came to the conclusion that the existing body of international law governing the conduct of armed conflict would make the use or threat of use of nuclear weapons illegal. The Court gave “no opinion” on whether the use of nuclear weapons might be legal in a situation of extreme self-defence where the existence of the state was threatened. The judges differed in their views on this, in a scenario, for example, where a state is under attack from weapons of mass destruction. Three judges considered nuclear weapons to be unlawful regardless of Article 51, because a state so defending itself would be in open violation of the cardinal principles of international law, causing “immeasurable suffering” to civilian populations.

The White Paper states, “The threshold for the legitimate use of nuclear weapons is clearly a high one. We would only consider using nuclear weapons in self-defence (including the defence of our NATO allies), and even then only in extreme circumstances.” But it is clear from the ICJ opinion that the threshold for lawfulness, if such a concept is even feasible, is much higher than any suggested within the White Paper. The government must be absolutely clear about this, for statements, such as that by Geoff Hoon when Defence Secretary in the run up to the war on Iraq, on the possible use of nuclear weapons, was clearly referring to a use of nuclear weapons which would be illegal. In recent years the government appears to have abandoned its commitment to “negative security assurances”—not to use nuclear weapons against countries without them—and this commitment must now be restored.

The White Paper also ignores the ruling which the ICJ also made at the same time, which states:

“There exists an obligation to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all its aspects under strict and effective international control.”

Recommendations

— To acknowledge that under virtually—if not all—circumstances, the use, or threat of use, of nuclear weapons is illegal.

— To reaffirm Britain’s commitment to “negative security assurances”.

— To reject any “first use” or “pre-emptive use” policy for nuclear weapons.

— To comply with the ICJ ruling on negotiations leading to nuclear disarmament.

NOTES


2 Kofi Annan speaking at the UN 60th anniversary event, London, January 2006.


4 Kissinger et al, op cit.


7 International Court of Justice, Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, 8 July 1996.

12 January 2007
Memorandum from the Nuclear Information Service

THE FUTURE OF NUCLEAR WEAPONS IN THE UNITED KINGDOM:
A RESPONSE TO THE GOVERNMENT WHITE PAPER

SUMMARY

On 4 December 2006 the Prime Minister presented a White Paper1 in the House of Commons on the replacement of the UK Trident nuclear weapons system. The White Paper concentrates on proposals to build new nuclear-armed submarines (known as Ship Submersible Ballistic Nuclear (SSBNs), whereas the design and production of a new warhead at the Atomic Weapons Establishment (AWE), Aldermaston is hardly mentioned. Throughout the Paper, language is confusing and assuming, leading the reader towards an unreasonable fear of the unknown and an unwarranted confidence in nuclear weapons. No mention is made of the constant risks of nuclear warhead transport and operations at AWE. A reduction in warhead numbers is offered as a concession to “disarmament” whereas it is probably related to warhead servicing capacity rather than any intended disarmament. Trident is described as an “investment” without reference to lost opportunity costs, or the difficulties of financial stability in the nuclear weapons industry. The benefits claimed for Trident are doctrinal and not military. There is nothing to dispel the conclusion that a decision to replace Trident has already been taken and that the race to seek endorsement from the House of Commons without a proper Consultation appears to be for political rather than security reasons.

WHITE PAPER LANGUAGE

Deterrence

The title of the White Paper, “The Future of the United Kingdom’s Nuclear Deterrent” should more accurately read: “The Future of Nuclear Weapons in the United Kingdom”. The term “deterrence” and “nuclear weapons” are wrongly used interchangeably to suggest that they have the same meaning. “Deterrence” is not a weapon but an unproven theory, a past doctrine that had many elements.

Common views

“The theory of deterrence is essentially flawed because there is no way of demonstrating that it has worked. There is absolutely no evidence to support the view that if we had not possessed the nuclear deterrent we would have been invaded, attacked or in any other way violated as a nation state.”

Rev David A Keddie The Herald, (Scotland) 26 June 20062

“This ‘having kept the peace for 50 years’ is like pulling the rabbit out of a hat—just a fancy sleight of sloganism meant to shut everybody up; the trouble is, it often works with those who don’t really want to question and are satisfied with an easy answer.”

Hazel Rennie, Woman for Peace

The word deterrent(ce) is used 170 time in the document to try to convince readers that these weapons will protect “the safety and security of [. . .] citizens”, the declared aim in the Prime Minister’s first sentence.

MINIMUM

The use of the diminutive, “minimum” is out of place with reference to Trident. The Paper acknowledges nuclear weapons to be a terrifying power, but at the same time, describes Trident as “the minimum necessary” in the Foreword; a “minimum amount of destructive power required to achieve our defence objectives” (3.4), and a “minimum investment” (3.13).

INVESTMENT

Trident is described as an investment, both in financial and defence terms. But investment means getting a beneficial return, which is not achieved by nuclear weapons, except for the nuclear industry.

INSURANCE

To equate Trident with an insurance policy is a simile that falls at the slightest examination. No company would offer insurance terms that add to the risk insured. Insurance has to be neutral, without status, and not attract a calamity or be a threat in itself. More than that, it is benevolent. In times of disaster it can be claimed to give succour and recompense, resources to rebuild or recover. The Non-Proliferation Treaty is exactly like an insurance policy: you are protected so long as you read the small print and comply with the terms of the agreement. Insurance is recommended for everyone, not just the few. To pursue the insurance analogy would be to accept that every country was entitled to it.
CONSULTATION

There is no mention of Consultation in the White Paper, yet a PM Answer, on 28 June 2006 said:

“We will announce the means of consultation when we publish the White Paper. Of course, we believe it is extremely important to have the fullest possible debate on the subject.”

Ministers and the press have led a reasonable person to assume that there was to be a normal consultation, regulated under published government guidelines. On 21 December, I asked the Department of Constitutional Affairs and the Ministry of Defence for clarification on the Consultation process and received the response “that there is no process, but anyone with concerns about the proposal to replace Trident is invited to write in to the Prime Minister” In general, government departments are expected to abide by principles on consultation, contained in the Governments Code on Consultation, and ensure consultation follow regulation best practice. This has not been done.

Ad hoc efforts have been made by contributors to the No 10 website discussion site and Compass, the democratic left pressure group, to undertake a Consultation. Compass sets out the arguments, both for and against in a balanced way to inform those taking part in its consultation. see <http://www.compassonline.org.uk/surveys/december—2006.asp>

QUESTIONSPOSEDINTHEFOREWORDTOTHEWHITEPAPER

Question 1: Why disarmament in the UK would help our security?

Answer: Our security needs are threatened by climate change, unsustainable increasing energy needs, potential pandemics, HIV/AIDS, global poverty, the competition for basic resources and the growing gap between rich and poor internationally and domestically. None of these threats are addressed by nuclear weapons but the resources released by disarmament could be available to directly tackle them.

Question 2: How to change the minds of hardliners and extremists in countries that are developing these nuclear capabilities?

Answer: Not by threatening to attack them with nuclear weapons but by recognising that responsible governments must seek to lower international tensions not escalate them. Nuclear disarmament is the only action that will remove the justification for countries to waste billions to develop, produce and maintain such weapons. This cannot be proved, as demanded, any more than the corollary, that replacing Trident will cause hardliners and extremists to desist from using them should they succeed in developing or acquiring nuclear weapons.

Question 3: Would terrorists be less likely to conspire against us with hostile governments because we give up nuclear weapons?

Answer: No. Nuclear weapons are irrelevant to terrorists. Nuclear weapons based in the UK are the easier target and pose a real risk of terrorist attack that should be eliminated if we are serious about the security of citizens in the UK.

Question 4: Would we be safer by giving up nuclear weapons?

Answer: Yes we would be safer by not being a potential threat of starting a nuclear war.

Question 5: Would our capacity to act be constrained by nuclear blackmailers?

Answer: At present Britain is a nuclear blackmailer, but Trident does not constrain any current identifiable threat. If Britain were to so antagonise a nuclear state in the distant future, that a nuclear attack was threatened, our best defence would be to negotiate and listen to their grievance rather than to threaten to join in any nuclear exchange.

WARHEAD NUMBERS

The White Paper offers a reduction in warhead numbers from below 200 to 160. But Nukewatch already puts the stockpile at around 178 with any further reduction probably due to logistics relating to warhead servicing rather than any intended disarmament. The AWE Burghfield assembly/disassembly plant has been condemned by the NII and there may well be a go-slow there until the new facility is built. Nukewatch figures suggest that at least two warheads were scrapped in 2006. In common with previous defence statements, the process announced had already begun. Warhead delivery into service is down on previous years by an estimated six in 2006. The Stockholm International Peace Research Institute estimates the figure at about 165, consisting of 144 deployed weapons plus an extra 15% as spares.

SUBMARINES

Stealth and secrecy are the principal military capabilities of submarines that naturally attract a following of submarine enthusiasts. But nuclear submarines are politically and militarily destabilising and should be the subject of an international disarmament agreement and confined to museums sooner rather than later.
SAFETY

No mention is made in the White Paper of the constant risks posed by nuclear warhead transport and operations at AWE. The highest risk we have from nuclear weapons in Britain, is from nuclear convoys trundling weapons up and down our motorways between Scotland and Aldermaston every very few weeks. The insecurity and environmental hazards created up is an un-acknowledged human cost. Local Councillors in Oxford, Preston and elsewhere have expressed concern that secrecy is a higher priority than safety, just as Baroness Helena Kennedy did in 1994.7

ALDERMANTON AND NEW WARHEAD DEVELOPMENT

The White Paper fails to mention the current £5.3 billion expenditure at AWE. The 2002 AWE Aldermaston Strategic Development Plan is now well into the building phase of the high powered laser, following a new computer building and modular office buildings. However major office plans have met local opposition and a special meeting is to be held by West Berkshire Planning Authority on 22 January to discuss the plans.3 Cursory mention in the White Paper of a possible new warhead does not sit well with the reality on the ground, where the infrastructure for warhead development is being built to last another 50 years, bringing a lifetime of unacceptable nuclear discharges into the environment and the constant risk of an accident or terrorist attack.

THE TRIDENT VOTE IN THE HOUSE OF COMMONS

The White Paper says that a government decision to replace Trident has already been taken. It can only be re-appraised if Members of Parliament vote to have more details of what is proposed before agreeing to an unknown financial commitment.

TRIDENT WARHEAD NUMBERS 2000–06

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Convoys out of AWE</th>
<th>No of TCHD carriers</th>
<th>Total No loaded</th>
<th>Estimated Warheads</th>
<th>Convoys in AWE</th>
<th>No of TCHD carriers</th>
<th>Total No loaded</th>
<th>Estimated Warheads</th>
</tr>
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<tr>
<td>2000</td>
<td>2</td>
<td>6</td>
<td>4</td>
<td>8</td>
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<td>4</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>2001</td>
<td>3</td>
<td>9</td>
<td>6</td>
<td>12</td>
<td>5</td>
<td>15</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>2002</td>
<td>4</td>
<td>12</td>
<td>8</td>
<td>16</td>
<td>5</td>
<td>15</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>2003</td>
<td>4</td>
<td>12</td>
<td>8</td>
<td>16 (1 in each TCHD)</td>
<td>5</td>
<td>15</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>2004</td>
<td>2</td>
<td>6</td>
<td>4</td>
<td>16?</td>
<td>2</td>
<td>6</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>2005</td>
<td>4</td>
<td>12</td>
<td>8</td>
<td>16?</td>
<td>4</td>
<td>12</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>2006</td>
<td>3</td>
<td>9</td>
<td>6</td>
<td>12?</td>
<td>4</td>
<td>12</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>22</strong></td>
<td><strong>66</strong></td>
<td><strong>44</strong></td>
<td><strong>88</strong></td>
<td><strong>28</strong></td>
<td><strong>88</strong></td>
<td><strong>60</strong></td>
<td><strong>120</strong></td>
</tr>
</tbody>
</table>

? = Possibly Less
6 more convoys In AWE
22 more TCHD In AWE
12 more loaded In AWE
Trident Warheads Out ce 120 -88 = 32

NOTES TO TABLE

TCHD = Truck Cargo Heavy Duty

Convoys are all loaded convoys

There are unlikely to be more than two warheads in each carrier, but there could be less.

Original capability 16 m × four subs 64 missiles × eight warheads each = 512.

Data is recorded from 80% observation and 20% deduction.

WARHEAD NUMBERS

There is no certainly in numbers because it is government policy to keep them secret. But the stockpile never got anywhere near the original 512 capability. In the last six years, 22 more loaded TCHD carriers have returned to AWE from Scotland than went out, indicating a withdrawal of between 30 and 50 warheads already without being announced, leaving an operational stockpile of between 170 and 150 warheads.
WHITE PAPER NUMBERS

The reduction mentioned in the White Paper, reflects existing numbers that have already been made for any number of reasons.

Who is the 160 message going to?

160 is still a large figure since four is enough to totally destroy a rogue state.

Given the limited number for use to change the balance of power in a country 160 how many countries is the PM talking about? How many wars?

11 January 2007

REFERENCES

1. Prime Minister’s White Paper Statement 4 December 2006
2. No evidence that nuclear weapons deterred
Letters The Herald, (Scotland) 26 June 2006

Dear Sir

R D DON states that he believes that “our deterrent has protected us and kept the peace for the past 50 years” (24 June). Why? This is not a belief I share, for the simple reason that he can offer no proof of this. The theory of deterrence is essentially flawed because there is no way of demonstrating that it has worked. There is absolutely no evidence to support the view that if we had not possessed the nuclear deterrent we would have been invaded, attacked or in any other way violated as a nation state.

You cannot make a causal connection between our ownership of a small nuclear resource and the fact that there has been peace. What evidence is there to support the view that Russia would have trampled all over us if we had not possessed a bomb? It is very inviting to postulate such a causal connection but there is none. That is the problem with a theory of deterrence. It used to be said that capital punishment was a “deterrent”—but how do you know? How many people were out there wanting to murder their wife/husband/lover, etc. but did not because of capital punishment? You simply do not know—all you do know is that it did not deter a certain number and they went ahead and committed murder anyway. Oddly enough, after capital punishment was abolished in the late 1960s the number of murders in Britain actually went down.

That there has been “peace” (well, apart from the Falklands, the Balkans, Afghanistan, Iraq, Chechnya, etc) and that we have happened to own a little handful of nuclear weapons are in no demonstrable way connected. That is an opinion. And there is no evidence that Russia (or America) ever had any intention of invading us after 1945. Our possession of nuclear weapons was an irrelevance to their foreign policy.

There may be reasons for our retention of nuclear weapons (although personally I can think of none), but the concept of deterrence is most certainly not one of them. It is an illusory self-deception.

Rev David A Keddie

3. Governments Code on Consultation

The six consultation criteria are as follows:

1. Consult widely throughout the process, allowing a minimum of 12 weeks for written consultation at least once during the development of the policy.
2. Be clear about what your proposals are, who may be affected, what questions are being asked and the time scale for responses.
3. Ensure that your consultation is clear, concise and widely accessible.
4. Give feedback regarding the responses received and how the consultation process influenced the policy.
5. Monitor your department’s effectiveness at consultation, including through the use of a designated consultation co-ordinator.
6. Ensure your consultation follows better regulation best practice, including carrying out a Regulatory Impact Assessment if appropriate.

Cabinet Office website at http://www.cabinetoffice.gov.uk/regulation/consultation/

4. AWE Quarterly Assurance Report, June 2006
5. Nukewatch. see www.nucleardinfor.org/nukewatch
Section 1: Maintaining Our Deterrent

1-3. If the decision is delayed then in 16 years time there might, in the worst case, be some weeks when there wasn’t a Trident submarine at sea on patrol. The fixation with Continuous at Sea Deterrence should not be allowed to dictate the timetable for making a decision.

1-4. The US Navy has extended the life of their SSBN for much longer than their SSN because of their different operating routines. The experience with Churchill and Resolution class submarines suggests that British SSBN might also have a longer service life than SSN built at the same time.

1-9. Documents describing the procedure for the Trident agreement in 1980 suggest that the timeline for the announcement to Parliament on 4 December and the exchange of letters on 7 December may have been agreed with Washington some time ago. On 8 January the US Navy placed large contracts with Lockheed Martin and BAe. Both include work on Trident Life Extension.

Section 2: The Policy Context

2-3. The practical step made towards disarmament at the time of the Strategic Defence Review in July 1998 was the removal of 36 warheads from submarines. These were not scrapped but placed in storage. The White Paper does not propose any reduction in the number of warheads deployed at sea. So the reduction will be achieved by scrapping warheads that are currently held in reserve, but operationally available. This means that the Government can make one reduction but claim the credit for it twice.

Box 2-1. In 1990 there were 96 Chevaline warheads on submarines, today there are 144 Trident warheads on submarines. In 1990 the warheads could be used against 48 targets, today they can be used against 144 targets.

2-10. The replacement of Trident is not consistent with the spirit of Article VI of the NPT. The arguments presented in Section 3 are ones that could be used in future decades. This implies that the UK has no intention of seriously moving towards disarmament. This attitude is contrary to the pact made at the NPT conference.

2-11. The ICJ opinion only failed to agree about the legality of the threat or use of nuclear weapons “when the very survival of the state would be at risk”. The White Paper repeatedly refers to the possible use of nuclear weapons in defence of Britain’s vital interests. This is a far broader term than the narrow area in the ICJ opinion. The ICJ did not say that it would be legal in these circumstances, only that the judges could not reach a common agreement. By failing to keep within this ICJ opinion the wording in the White Paper undermines the strength of international law in restricting nuclear weapons.

Section 3: Nuclear Deterrence in the 21st Century

3-3. “nuclear weapons pose a unique terrible threat”. The MoD employs a number of specialists to calculate the precise effects of nuclear weapons in particular scenarios. Yet they have not asked one of their analysts to assist in the drafting of the White Paper by giving an example of the effect of these weapons. A report by Scottish CND in 1999 calculated that an attack with the 48 warheads on one submarine against command bunkers around Moscow would result in three million civilian deaths within 12 weeks.

A second omission from the White Paper is any consideration of the morality of the use of nuclear weapons. The document is presented as a subject for public and parliamentary debate, yet it does not even try to identify and tackle the fundamental issue of whether it could ever be acceptable for this country to use a single weapon that would kill tens of thousands of civilians.

The Moderator of the Church of Scotland, Rt Rev Alan McDonald, and the leader of the Scottish Catholic Church, Cardinal Keith O’Brien, have taken a strong united stand against the replacement of Trident on the grounds that it is morally and theologically wrong. They have been effective in encouraging churches in England and Wales to adopt a similar position. One of the leaders of Scotland’s Islamic Community has echoed this stance.

3-3. This paragraph goes on to say that, because they present such a terrible threat, nuclear weapons “have a capability to deter acts of aggression that is of a completely different scale to any other form of deterrence”. In fact the weapons are so destructive that they are self-deterring and obviously so. Their ability to influence how other governments behave is not greater than any other military forces, but less.

3-4. This makes a virtue of ambiguity, but is only an attempt to obscure the fact that any threat to use nuclear weapons in an independent nuclear attack would be a bluff and would be seen as such.

The role of nuclear forces in NATO today is by no means clear. Numerically the main component is the 480 US B61 bombs scattered across Europe. These are on an alert state measured in months. There is pressure from within the US military to withdraw these bombs to America as they have no obvious function and present a target to terrorists.
The Cold War argument that, as a second centre of decision-making, Britain might order a nuclear attack if the United States showed restraint was always a weak one. In future scenarios this argument becomes so tenuous as to be meaningless. A credible independent deterrent would require not only real independence but also that those who might be deterred perceive the British force as independent. The nations that might be presented as potential future adversaries currently consider Britain as little more than a puppet of the United States. Faced with the ambiguities promoted by current policy, they would conclude that British forces could not be used without American permission.

3-5f. In addressing the potential dangers of the future there is a need to move beyond the perspective of Britain alone, or an as ally of the United States, to that of Britain as a responsible member of the international community. Every nation in the world could use the arguments presented here to show why they needed the bomb. But if each country only considers itself then nuclear proliferation will accelerate. Rather than willing on this apocalyptic future we should be working with others to prevent it.

SECTION 4: ENSURING EFFECTIVE DETERRENCE

4-2. Others nations can interpret the British submarine on patrol as a threat. If nuclear weapons are dismantled on-shore then other nations can verify that these warheads cannot be used at short notice. Whereas they will assume that the weapons in a submarine on patrol can be launched in minutes. This encourages them to keep their own forces at a dangerously high state of alert.

4-4. Britain does not currently have the capability to use Trident against targets anywhere in the world, or at least not with any accuracy.

4-6. The provisions detailed are not sufficient to constitute operational independence. The computers that draw up British nuclear attack plans rely heavily on US software. The fire control computers on the submarines run entirely on American software. While experts in the UK may check the programmes before they are deployed their task is hampered by the fact that there are substantial gaps in the US software, where items have been removed because they are too highly classified. They cannot guarantee that US programmers have not crippled the software to prevent independent use.

The British Trident system is so substantially intertwined with the American system that it is hard to see how Britain could launch a nuclear attack if Washington was strongly against it.

4-9. A force of 144 nuclear warheads with 48 deployed on patrol is far more than a minimum. The statement that a lower yield warhead “can make our nuclear forces a more credible deterrent against a smaller nuclear threat” echoes US studies which argue that nuclear weapons should be more “useable”. This is dangerous as it blurs the distinction between nuclear and conventional forces.

SECTION 5: DETERRENT OPTIONS, SOLUTIONS AND COSTS

5-9. The suggestion that the number of submarines will be limited to three is unlikely to be implemented.

5-11f. The figures given for the cost of replacing Trident are incomplete. The White Paper does not give a full estimate of the costs of redeveloping the Atomic Weapons Establishment or of operating the new system from 2024–55. It does not reveal the total cost of the new system, nor does it give average annual costs of components or the entire programme.

A senior Whitehall source in the MoD was reported as saying that “the most expensive bit of an independent British nuclear deterrent is maintaining the capability to manufacture our own warheads”.24 The projection that the annual costs of Aldermaston will rise to 3% of the Defence budget is consistent with this.

Following the publication of the White Paper a number of MPs from different political parties have asked questions in an attempt to fill in gaps. Ministers have referred them back to the wording in the White Paper and have not revealed the full costs. Either the Ministry of Defence has not calculated them, in which case they have not carried out a thorough review, or they are not disclosing them to Parliament. The failure to give detailed costs is in itself sufficient grounds to reject the White Paper.

SECTION 6: INDUSTRIAL ASPECTS

6-7f. Removal of the used fuel to Sellafield is mentioned here as if it were a short term measure. The only reference to long-term storage is of intermediate level waste. The White Paper does not provide an adequate and fully costed decommissioning plan.

24 Article by Edward Heathcoat-Amory, Daily Mail, 14 December 2006.
SECTION 7: FUTURE DECISIONS

7-4. There would be major financial savings if a decision were made now to close off the option of a replacement warhead. The potential life of the warheads is not unlike that of the submarines. Extending both for a small number of years may be an option. Keeping the existing warheads in service for 60 years is not a credible alternative.

7-6. The White Paper is presented as primarily a decision to build new submarines. But in due course the MoD are planning to acquire a new missile system. This is not the renewal of the Trident system, but its replacement.

There is no mention of how a new supply of tritium for warheads will be secured. The current reserve will be exhausted long before 2055. Nor is there any reference to how the fuel rods for new submarines will be manufactured. This will take place after the current RRA plant in Derby has been decommissioned.

Scottish dimension

The White Paper marks out a future in which Britain will continue to have nuclear weapons on submarines based in Scotland until 2055. It plans improvements to the Trident infrastructure at Faslane and makes no provision for basing the submarines elsewhere.

During 2006 there were three debates on Trident replacement in the Scottish Parliament. The latest occasion was an SNP motion on 21 December. The Scottish Liberal Democrats put down an amendment calling on the UK Government not to go ahead with the proposal in the White Paper at this time. This was defeated by only five votes. Several of the Labour MSPs who voted against this amendment have made it clear that they are opposed to Trident replacement.

During these debates only a small number of MSPs attempt to use the points made in the White Paper. The main argument that is used to justify the retention of Trident is that it will employ people at Faslane. Exaggerated claims are made about the number of jobs in Scotland which depend on Trident.

Throughout the 1980s Ministers argued that Trident would bring thousands of jobs to Scotland. Then the number of long-term jobs was halved when the refit contract was awarded to Devonport. There is considerable public scepticism about promises of employment.

The Scottish Trades Union Congress has recently sponsored a study into the potential for redeploying the workers who are employed on Trident at Faslane.

A YouGov opinion poll in November 2006 found that 61% of those questioned felt that the Scottish Parliament should have the power to prevent the deployment of nuclear weapons in Scotland. On 8 January Michael Matheson MSP and John Mayer, Advocate, launched a proposal to introduce a Bill which would outlaw the threat or use of nuclear weapons in Scotland. Chris Ballance MSP is preparing to introduce a Bill that would outlaw the transportation of nuclear weapons on Scottish roads.

The plan to replace Trident and keep nuclear weapons in Scotland for 50 years will not improve the relationship between Edinburgh and London. It is likely to be a growing point of contention.

10 January 2007

Further memorandum from Scottish Campaign for Nuclear Disarmament

In 1988 an Audit Office report into the Trident programme said:

“proving the effectiveness of the system for UK purposes is dependent on the production in the UK of software for targeting, modelling and effectiveness assessment”.

The report pointed out that at the time the Director General Strategic Weapon Systems was having difficulty recruiting suitable staff. In 1994 the Defence Minister said that software development work had been completed using a mix of internal expertise and specialist contractor support.

1. RELIANCE ON US SOFTWARE

The designers of the Trident D5 adopted a systems-wide approach to meet the accuracy specifications of the missile. They studied and modelled each factor that could reduce accuracy and created a substantial complex of software, computer models and data. These are not static but are regularly updated. While the UK does produce some software for the British Trident system, much of it is of US origin.

26 Letter from Roger Freeman MP to Frank Cook MP, 22 August 1994.
27 APL website and Dahlgren Technical Digest 1995.
The Applied Physics Laboratory of John Hopkins University in Maryland (APL) evaluates the UK Trident missile system.\textsuperscript{28} APL designed the systems used to monitor missile tests and they analyse all British tests.\textsuperscript{29} Additional analysis is carried out by Charles Stark Draper Laboratories, who make the missile guidance system.

The Trident Fire Control hardware is manufactured by General Dynamics Defense Systems (GDDS). The US Navy regularly places contracts with GDDS for updates of software for the UK fire control system.\textsuperscript{30}

K Department of the Naval Surface Warfare Centre at Dahlgren in Virginia develop and test the targeting and fire control software for Trident. The contractor who supports K Department is required to:

- “co-ordinate the development of fire control specifications for the United States and United Kingdom SLBM systems and support specification testing . . .”
- “perform the verification, acceptance, static and/or dynamic testing tasks for up models including Fire Control support software, United Kingdom reference/simulation models, US/UK targeting models and SLBM general purpose tools”.\textsuperscript{31}

The models referred to are at the heart of the Trident system.\textsuperscript{32} They were used for shore-based targeting and performance assessment. In addition parts of these models are integrated into the fire control software on Trident submarines.

In the British software facility programmers maintain, update and modify US codes and models for inclusion in the suite of codes for the UK Trident system.\textsuperscript{33}

2. \textbf{VALIDATION OF US SOFTWARE IN THE UK}

When asked about the verification of US fire control software, Des Browne said:

> “Each new release of Trident fire control software is certified by the US Government under the terms of the Polaris Sales Agreement (as amended for Trident). Under the agreement, the UK has the capability to validate the software models for software performance and verify that the findings are correct. This is undertaken and independently verified by UK experts to ensure the software meets our requirements before being issued to Royal Navy submarines.”\textsuperscript{34}

Adam Ingram was asked about US software for the shore-based system and said:

> “The UK shore-based target planning system for Trident is validated through a range of UK and US research programmes. UK experts then independently verify the system against requirements before issuing it to Royal Navy submarines”.\textsuperscript{35}

Work on software for Trident is carried out in the Corsham Computer Centre also referred to as the Corsham Software Facility.\textsuperscript{36} This is an underground complex close to Basil Hill Barracks in Wiltshire. Mass Consultants Ltd manage the IT system in the centre, on behalf of the Strategic Systems Integrated Project Team.\textsuperscript{37} Analysts who assess the performance and effectiveness of Trident use the IT facilities in centre.\textsuperscript{38}

\textsuperscript{28} APL website.
\textsuperscript{29} In addition an Electronic Weapons Log, designed by APL, monitors the missile system on British submarines when on patrol. APL probably analyse the data from these logs.
\textsuperscript{30} The following contracts for UK Trident fire control software are listed on fbdaily.com—
- September 1998: UK 534 software changes;
- September 1999: Development and testing of UK 534 rev 1 software and documentation;
- September 1999: Develop and test 534 software to support UK missile tests;
- December 2000: Collection of data for UK 538 software pre Formal Qualifications Testing;
- May 2001: Review and production of documentation for UK 837 software;
- May 2001: UK 838 software upgrade;
- November 2001: Follow-on software and maintenance for UK X38 software;
- April 2002: Development, integration and maintenance of UK X38 software;
- October 2002: Design and development of UK X39 and documentation for UK X38;
- December 2002: Independent Validation and Verification of UK X38 software;
- March 2004: Development of UK 539 software;
- October 2004: Formal Qualifications Testing of UK 539 software;
- January 2005: Completion of Formal Qualifications Testing of UK 539 software;
- July 2005 UK: 841 software and planning for UK 542 software.
\textsuperscript{31} www.egginc.com/seaportenhanced/TO/006/BP_K_Omnibus_SOW-Final.pdf
\textsuperscript{33} Online source.
\textsuperscript{34} Written Answer to question from Nick Harvey Hansard 6 July 2006.
\textsuperscript{35} Written Answer to questions from Nick Harvey Hansard 12 October 2006.
\textsuperscript{36} Both terms are used in MoD lists of supply codes for the Trident programme.
\textsuperscript{37} Mass Consultants website.
\textsuperscript{38} www.ams.mod.uk/ams/content/docs/peopacq/comframe/nuc/nucweap.pdf
The one company in the UK with expertise in analysing SLBM trajectories was Hunting Engineering Ltd. The company changed its name to INSYS and then to Lockheed Martin UK. They now are a subsidiary of the US firm with the main Trident contract.

Some of the validation will be carried out at Corsham but other work is probably contracted out to Lockheed Martin UK.

3. Removal of Classified Items from US Software

British experts will be hampered in their attempt to validate the software by the constraints of US security restrictions. The Joint Strike Fighter deal showed the difficulties of purchasing equipment which is dependent on sensitive American software. In the case of Trident the US does supply the software codes, but not in their original complete form.

A substantial proportion of US nuclear targeting information is classified so that only US citizens can see it. The Chief of Staff has issued a directive specifying how classified items should be removed from nuclear targeting information, in a process called sanitising, before it is handed to the Corsham Computer Centre, the London targeting centre or the British contingent at Strategic Command in Omaha.39

The contractor at Dahlgren has to check that any software handed to Britain has been sanitized, as part of the Quality Assurance (QA) process:

“For the QA of UK models, the contractor shall analyse the software, data and documentation to verify that all US-only items have been removed.”40

This implies that the process is as follows:
1. US contractors produce software items for the US Trident system.
2. US-only items are removed from the code, data tables and instruction manuals.
3. A US contractor verifies that these items have all been removed.
4. The cut-down software is handed to the Corsham Computer Centre.
5. Corsham and Lockheed Martin UK check that the software works.
6. The software is issued to submarines, the London Targeting Centre and/or the Corsham Computer Centre as appropriate.

4. Implications for the Independence of UK Trident

From the perspective of Washington it would be desirable to create the impression that Britain can use Trident independently while at the same time maintaining a veto over actual use. One particular concern will be the potential for Britain to launch 144 nuclear warheads at the United States.

How could the software stop a Trident launch?

General restrictions

Preventing the use in all circumstances except tests, or preventing the missiles from being fired Westward, towards the US from the normal patrol areas, should be possible.

Restricting the system to only NATO or joint US/UK plans

The fire control system can probably distinguish an independent British plan from a NATO or Anglo-American plan. Any allied or joint plan would have to be deconflicted. This is a process of integrating two plans to ensure that they do not undermine each other’s effectiveness. For example debris in the fallout cloud from the explosion of a British nuclear explosion could cripple a US nuclear weapon and prevent it from detonating. For reasons of complexity and classification it is not possible to run a US attack plan through the British computer system. Deconflicting can only be carried out by running the British plan through the main US nuclear planning system at Strategic Command in Omaha.41 This deconflicting process is likely to leave a trace in the data which could be detected by the fire control software on the submarine. If the software can distinguish a NATO plan from an independent one, then it could possibly prevent the independent plan from being implemented.

39 This is based on the title of CJSCI 3231.04C 6 July 2004, the contents are classified Secret, listed in compendium of CJSCI 14 January 2005.
41 Rear Admiral Irwin said “We plan and deconflict our NATO target plans with the targeting centre in Omaha”, Minutes of meeting on 10 March 1993; Progress of Trident, 6th Report, House of Commons Defence Committee 1993.
Restricting use by manipulating weather data

A NATO or Anglo-American plan would probably use US weather data. The fire control system requires details of weather over the target area if it is to achieve the desired level of accuracy. For an attack on Russia a large amount of data is required on wind speed and air density at various altitudes. This data has to be transmitted over VLF. It is compressed and formatted in the US into Ballistic Parameters (Balpars). These are transmitted every 12 hours. There are similar mechanisms for producing detailed weather data when Trident is being retargeted against specific targets. It is possible that information could be contained within Balpars or other weather data that would have the effect of switching on or off the UK fire control system.

If the US tampered with the software would we find out?

The US Navy asked Mountain State Information Systems to check the security of the US Trident software. The company’s description of this work reveals that this was a complex task for which they had to develop new techniques. This suggests that if the US programmers tried to hide commands within the software it would not be easy for British experts to find them.

The task is made particularly difficult because of the holes in the code, data and manuals where items have been removed for reasons of security. This means that there will be parts of the UK software which do not make sense. But the US manufacturers will not be able to explain the anomalies because the missing material is classified.

As the software has a mixture of cut-down US components and British elements it will be a difficult task to get it to work. This is probably the main focus of the British software effort. Checking to see if the Americans have crippled the code is probably not a priority.

This does not establish that the software has been crippled, but does suggest that it could be. The only way that Britain can guarantee that the Trident software has not been modified would be to produce it all ourselves. But we do not currently have the expertise to do this.

19 January 2007

Memorandum from Professor Richard L. Garwin

1. On 4 December, Prime Minister Blair announced in Parliament his Government’s decision to replace Britain’s four Trident ballistic-missile submarines with a successor fleet. He asserted that the service life of these submarines can be extended to only 30 years, which would mean that the submarines would have to be retired in 2023 (Vanguard), 2025 (Victorious), 2026 (Vigilant), and 2029 (Vengeance).

(a) Richard L. Garwin is a member of the US National Academy of Engineering, National Academy of Sciences, and the Institute of Medicine. He has received the National Medal of Science and the Enrico Fermi Award, as well as RV Jones Award in Scientific Intelligence. For many years he chaired for the President’s Science Advisory Committee (PSAC) the Antisubmarine Warfare Panel, the Naval Warfare Panel, and the Military Aircraft Panel. He served for many years also on the Strategic Military Panel of PSAC. He is a long-standing consultant to the Los Alamos National Laboratory and the Sandia National Laboratories and is currently involved with assessments of the US nuclear weapons program. He continues to be active with contributing to and assessing defense technology both independently and as a member of the JASON group of consultants to the US Government.

(b) Philip E Coyle is a Senior Advisor to the President of the World Security Institute, a Washington DC—based national security study center. He is a recognized expert on US and worldwide military research, development and testing, on operational military matters, and on national security policy and defense spending. From 1994 to 2001, Mr Coyle was Assistant Secretary of Defense and Director, Operational Test and Evaluation, in the Department of Defense, and the principal advisor to the Secretary of Defense on testing and evaluation of US military systems. During the Carter Administration, Mr Coyle served as Principal Deputy Assistant Secretary for Defense Programs in the Department of Energy with responsibility for nuclear weapons research, development, and testing. Then and at various times in his 33-year career at the Lawrence Livermore National Laboratory in Livermore, California, he supported the United Kingdom SSBN program and the development, testing and evaluation of nuclear warheads with the UK.

43 The hardware and software of the US and UK Trident systems were upgraded in 2002 to increase flexibility in retargeting. Research was carried out into metrological inputs for both systems as part of the upgrade.
44 These are the commissioning dates given at http://www.naval-technology.com/projects/vanguard plus 30 years. For some reason, the Prime Minister’s statement has the retirement dates one year earlier.
(c) Theodore A. Postol, physics and nuclear engineering. Professor of Science, Technology and National Security Policy in the Program in Science, Technology, and Society at MIT. He served as staff for the Congressional Office of Technology Assessment Study on MX Missile Basing. He then assumed a position as scientific advisor to the Chief of Naval Operations where he dealt with questions of future strategic deterrence and missile defense. After leaving the Pentagon, Dr Postol helped to build a program at Stanford University to train mid-career scientists to study developments in weapons technology of relevance to defense and arms control policy. In 1990 Dr Postol was awarded the Leo Szilard Prize from the American Physical Society.

(d) Frank von Hippel is Professor of Public and International Affairs at Princeton University and co-founder of Princeton’s Program on Science and Global Security. He has contributed to the US nuclear-policy debate both by his independent assessments and as Assistant Director for National Security of the White House Office of Science and Technology Policy. He is co-chair of the International Panel on Fissile Materials.

2. In this Comment we explain why we believe it likely that the Vanguard-class submarines can safely and economically be operated for 40–45 years rather than 30. This would not only save funds for other defence needs but would provide valuable flexibility in the decision whether or not to maintain the nuclear deterrent for another 40 years beyond 2035, to build smaller SSN-size strategic submarines for a smaller long-range ballistic missile, or to introduce new technology to the submarine design and build process. We touch also on the question of the submarine industrial infrastructure, the pace of manufacturing, and the skill base for Britain’s nuclear submarines. Finally, we observe that the security of the UK, like that of the US, is more imperiled than supported by the existence of nuclear weapons, and that the elimination of nuclear weapons, or at least of national nuclear weapons, is a possibility.45

3. Given that the service lives of US Trident submarines were extended in 1998 from 30 to 44 years,46 one obvious question is whether the UK could do the same. (In 1998, the oldest US Trident, the Ohio, was 17 years old, three years older than the Vanguard today.) Also the US Tridents spend approximately two thirds of their lives at sea with two crews for each submarine while the UK requires that only one out of four of its Tridents be at sea at any time. The lower usage rate of the UK Tridents might be expected to increase their life expectancy relative to the US Tridents.

4. The White Paper on The Future of the United Kingdom’s Nuclear Deterrent submitted to Parliament by the Secretaries of State for Defense and Foreign and Commonwealth Affairs (hereafter Defense/Foreign Affairs, for short) argues, however, that a life extension is not possible for Britain’s Tridents:

“We have undertaken detailed work to assess the scope for extending the life of those submarines. Our ability to achieve this is limited because some major components on the submarines— including the steam generators, other elements of the nuclear propulsion system and some non-nuclear support systems—were only designed for a 25-year life. The submarines have been, and will continue to be, subjected to a rigorous through-life maintenance regime and we believe that, by revalidating those components, it should be possible to extend the life of the submarines by around five years.”

Since the UK Tridents are still relatively young, however, it may be that improved management of their water chemistry could drastically extend the steam generator lives. The US has a major R&D program in that area whose results could presumably be shared with the UK.48 More fundamentally, we are skeptical that the submarines “were only designed for a 25-year life”. More likely, they have a “minimum design life” of 25 years and are likely to be operable for a much longer time. A similar misunderstanding was prevalent about the longevity of US nuclear warheads, with some arguing that because experience with the core of the nuclear weapon primary—the sealed metal “pit”—was limited to, say, 45 years, one needed to plan and operate pit-manufacturing plants to provide replacement pits as a 45-year echo of the original build. The US Science-based Stockpile Stewardship Program has recently determined that pit lifetimes are at least 85 years, as announced by the US National Nuclear Security Administration (NNSA).49 Since the pit is the most specialized part of the nuclear weapon and the element most critical to its performance, it is of great

46 See eg Nuclear Posture Review, Submitted by the US Department of Defense to the US Congress, 31 December 2001, p 42, excerpts available on globalsecurity.org
48 See eg, the US Department of Energy discussion of this program in the justification of the naval reactors portion of its proposed Fiscal Year 2004 budget: “Maintaining steam generator integrity over the full service life, especially as we extend the service life of ships, requires improving understanding of high temperature corrosion processes, assessment of potential causes and corrective actions, and development of alternative water chemicals which can inhibit or abate corrosion. Trace impurities become highly concentrated by the boiling process in areas of low flow and form deposits. The concentration of impurities in these deposits can become corrosive and threaten the integrity of the unit. Development work focuses on evaluating corrosion mechanisms, devising methods to locate and remove deposits, minimizing input of impurities, and evaluating and testing water chemistries and corrosion inhibitors for benefits and drawbacks to ensure they mitigate the consequences of impurities over the life of the plant,” http://www.mbe.doe.gov/budget/04budget/content/nvreact/nvreact.pdf, p 818.
49 “Overall, the weapons laboratories studies assessed that the majority of plutonium pits for most nuclear weapons have minimum lifetimes of at least 85 years.” (NNSA Press Release, 29 November 2006, at www.nnsa.doe.gov)
significance that its life exceeds 85 rather than 45 years. This certainly does not imply that the entire nuclear warhead will remain operable for 85 years, but the remainder of the warhead is more readily testable and replaceable. The lesson for the submarine replacement program is that continued monitoring of the submarines in service may show well in advance that the service life, with proper maintenance and corrective action, can much exceed the 25-year minimum.

5. In particular, replacing the steam generators and other limited life components should not be casually dismissed as an option if it would allow a 10 to 15-year extension of the UK Trident submarine service lives and a corresponding deferral of the replacement decision. It is a routine if major operation to replace steam generators in civilian nuclear power plants. A proper evaluation should be made of the cost of access through the Trident hulls and replacement of their steam generators, if that is required.

6. Major refurbishments in the Trident submarines are routine and replacements of major systems are assuredly involved. As the Prime Minister stated to Parliament on 4 December:

“Our deterrent is based on four submarines. At any one time, one will be in dock undergoing extensive repair and maintenance, usually for around four years.”

The Vanguard spent three years in refit at the Devonport Naval Base including a new reactor core between 2002 and 2005, ie between year nine and 12 of its life. The Victorious began refit in 2005, the 10th year of its life.50 The new cores should be longer lived,51 so it is not clear when the next major refit would be scheduled.

7. The Prime Minister stated that the cost of building four replacement submarines would be £15–20 billion. The real discount rate used for UK indexed gilt-edged bonds by the UK Debt Management Office is 2.5%. A delay in this expenditure by 10–15 years would be worth about £5 billion. Alternatively, extending the lifetime of the submarines from 30 to 40 or 45 years would reduce the annual capital cost by £150–200 million per year. Obviously, the possibility of such life extension is worth in-depth study.

8. Our experience is that it is useful to challenge statements such as those made in the Defense/Foreign Affairs White Paper. For want of deep analysis of the options, real national military capability often takes second place to parochial service and contractor interests.

9. For example, in the 1960s when one of us (RLG) chaired the Military Aircraft Panel of the US President’s Science Advisory Committee, the US Air Force was arguing that the B52 could not operate much beyond the 1970s because of the accumulation of metal fatigue in its wings, and for other reasons. The B52, of course, still operates 40 years later, as a result of life extension programs.

10. At the time, the US Air Force was arguing for a replacement aircraft—the B70 and then the Advanced Manned Strategic Aircraft—AMSA—with the claim that an aircraft with somewhat higher subsonic speed would not be as vulnerable as the B52 to the Soviet-supplied surface-to-air (SAM) systems that were spreading around the world and that were, in fact, operating at that time in Vietnam.

11. Detailed discussion with the Air Force revealed that the relative invulnerability of the newer aircraft depended on the assumption that the SAM-2 system needed to track the aircraft for a much longer period before launch than we knew to be the case.

12. Indeed, the United States did build two new strategic aircraft—the B-1 and the B-2, and similar lawyerly arguments were made in favor of each of these. The B-1, in particular, was for the strategic role in competition with the B52 and with the cruise-missile carrier, since it was finally recognized that it was both inefficient and too vulnerable to have an aircraft make the rounds to deliver a dozen or more strategic nuclear weapons against individual targets in the heavily defended Soviet Union. Instead, long-range strategic cruise missiles would be launched from aircraft outside or near the border of the Soviet Union, in order to be able to carry out the retaliatory strike and allow the aircraft system to serve as a component of the strategic deterrent.

13. Congressional testimony exposed the Air Force assumption that the cruise missile carrier would spend one hour (alternatively, two hours) flying along the border of the Soviet Union to release its 40 or so cruise missiles; the ballistic-missile submarines launch their missiles undersea at a 15-second cadence—a much more difficult task. The problem was resolved by equipping the old B-52 with air-launched cruise missiles that allow it to launch from outside defended areas. In addition, the Air Force discovered that the strategic cruise missile could actually be carried internally by the proposed B-1 bomber—despite Air Force early antagonism to the cruise missile.

14. As a further example, imminent improvements in Soviet antisubmarine warfare similarly were cited as the reason why it was urgent to proceed with the Trident submarines because the larger submarines could carry larger missiles with intercontinental range—hence a much larger ocean operating area. When one of us (RLG) testified in support of an extended-range Poseidon missile to be deployed in the existing Poseidon submarines, the US Navy countered that the accumulation of hull corrosion and metal fatigue in the Poseidon submarines strictly limited their life in any case.

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50 http://www.naval-technology.com/projects/vanguard/
51 Rolls Royce indicates that its new reactor core design “lasts the entire life of the submarine, eliminating costly mid-life refueling.” http://marine.rolls-royce.com/nuclear-reactor/
15. This led RLG to write a letter to the Assistant Secretary of the Navy for Research, Engineering, and Systems to try to obtain a straightforward definitive answer as to the “compelling argument” that submarine hull corrosion and metal fatigue required the urgent replacement of the Poseidon submarines.

16. RLG’s letter to David E Mann and his reply are attached. Mann’s reply was that, in fact, an intensive monitoring program had shown that hull corrosion and metal fatigue of US strategic submarines were not major problems and, further, that to the extent they occurred, there were low-cost, effective solutions.

17. We cite this not because we believe that the Naval officers who had given the false statements were lying, but rather that, for years, they must have been ignorant of technical reality. The same may be true of the authors of the UK White Paper on The Future of the United Kingdom’s Nuclear Deterrent.

18. That UK Government White Paper does not cite metal fatigue and hull corrosion as life-limiting factors for the UK Trident submarines. It simply indicates that (pp 9, 10)

.” . . . some major components of the submarines—including the steam generators, other elements of the nuclear propulsion system and some non-nuclear support systems—were only designed for a 25-year lifeThere have been some suggestions that we should replicate US plans to extend the lives of their Ohio-class SSBNs from 30 to over 40 years. A substantial life extension of this kind would need to have been built into the original design of the Vanguard Class and into the subsequent manufacture, refit and maintenance of the boats. Unlike with the Ohio class this was not the case.”

In systems designed conservatively to ensure a minimum life of 25 years, it is common to find from experience that the system or component can be operated safely for a much longer time; often it is the advent of smaller, cheaper options that cause the scrapping of equipment, as is certainly the case with computers. Here, however, the replacement would carry the same large missiles and fulfill the same mission, so that the benefits of newer technology are minimal—or at least unstated in the White Paper. Certainly, a much more detailed consideration of the options than is offered in the Defense/Foreign Affairs White Paper would be required to make a judgment between a life-extension program and a program for building new submarines.

19. In our experience, until these matters are properly prepared for outside review, they are not adequately formulated for inside decision makers. We see no reason why questions such as the possibilities for control of the corrosion of steam generators cannot be fully discussed in public. As for the “other elements of the nuclear propulsion system and some non-nuclear support systems . . . only designed for a 25-year life” not otherwise detailed in the White Paper, these are surely replaceable in case surveillance shows the need to do so, and it is only a matter of cost-to-replace compared with the proposed program for replacement of the fleet itself.

20. Beyond the potential cost savings in choosing life extension of the Vanguard fleet over total replacement of the submarines, there is great merit in postponing the initiation of a replacement program even if that were to be the ultimate choice. The Trident D-5 missile is greatly oversized for its current loading that averages three warheads for a missile that can accommodate 12 and in US SLBMs the average is now down to 6.52 To permit the delivery of a single warhead, it is likely that some of the UK missiles are fitted with a single warhead and some with considerably more than the average of three. Because of the enormous evolution in computer technology and the miniaturization of guidance systems, there is the opportunity to use small, single-warhead missiles of range comparable with the Trident D-5, but those missiles would need to be developed, together with a potential suite of appropriate countermeasures to ballistic-missile defense systems. A resulting major benefit would be the much smaller strategic submarine that could be operated by the much smaller crew enabled by modern information technology; the UK could consider a fleet of 6–8 such submarines that would permit keeping two at sea at all times. For instance, a version of the Astute class SSN might be built as an SSBN with the small, single-warhead missiles. A hasty commitment to a simple Vanguard replacement would foreclose such an opportunity.

21. Parliament has recently published a report on the manufacturing and skills base for the UK’s SSBNs.53 Industry has stated and the Government seems to accept that an interval of 22 months—a rhythm or “drumbeat”—is the minimum rate needed to maintain a healthy nuclear-submarine design and production base in the UK. The Royal Navy now operates the four Vanguard SSBNs and nine SSNs (two Swiftsure and seven Trafalgar), with three Astute SSNs in the pipeline. If the program would maintain a pace of one ship every two years, then with a 30-year operating life, there would be 15 submarines in the Navy; with a 45-year operating life there would be 22 ships. The pace demanded by industry does not seem to be compatible with the funds and planning of the Government, but one does see a lack of motivation to extend the operating life.

22. The explicit premise for the continuation of the Vanguard program—either by life extension or replacement—is that the submarine is invisible and invulnerable in the open ocean. With the end of the Soviet Union and of committed enmity between East and West, there is no longer the deep-seated fear that Soviet science and technology would put the patrolling SLBMs at risk of preemptive destruction, but the US—and we presume the UK—has intensive programs to evaluate the possibility that Russia or other states will be able to use satellite observations or other approaches to track or to detect the submarines at sea. Another potential vulnerability arises from the surreptitious attachment to the submarine hull of a tracking aide as the submarine leaves port, and the fleets must exercise constant vigilance to avoid this.

23. The purpose of the UK SSBNs is evidently very different from what it was during the Cold War, aside from the simplistic statement that it is to prevent the destruction of the country and to guarantee security. Against whom could the “strategic nuclear deterrent” effectively be oriented? This is, of course, the central question, which is difficult to answer at a time of international confusion about the future of nuclear weapons. A decade delay in the replacement decision might produce a clearer answer.

24. With conservatives and liberals alike (for example see footnote 2) now calling for renewed effort towards the goal of a world free of nuclear weapons, the United Kingdom has a unique opportunity for world leadership as it considers the role and value of its nuclear force. An unnecessary and premature decision to build new submarines could lock the United Kingdom into a more costly and dangerous future for the next 50 years, while a decision to extend the life of its existing submarines opens a variety of options for the UK.

25. To maintain the UK security it is essential that the future of the nuclear deterrent be decided with full consideration of the options and of their cost, in view of the other needs in the defence budget. The White Paper is only a start on that process. As we have indicated above, much more remains to be done, both within the Government and in Parliament.

10 January 2007

Memorandum from British American Security Information Council (BASIC)

1. SUMMARY

1.1 There is widespread suspicion that the Government’s decision over Trident replacement has more to do with domestic political positioning than it does with security concerns. These suspicions are strongest when it comes to the timing of the decision. The stakes are high. This decision is far too important in its own right, with implications for Britain’s role in the world and for global non-proliferation, for the Government to be rushing a decision based upon assumptions from outdated debates of the 1980s.

1.2 An early decision to replace, weeks before the first NPT Preparatory Committee meets in April this year, could derail efforts to build international momentum towards stronger non-proliferation norms and multilateral nuclear disarmament, even before delegates sit down to talk. It will not only strengthen the hand of those within countries like Iran trying to justify dangerous and proliferatory policies to their populations, stiffening their resolve to challenge the status quo, but will also further weaken Britain’s credibility within the majority world: the 183 Non-nuclear Weapon States (NNWS) that are looking to the Nuclear Weapon States to take previously agreed steps towards a nuclear-weapon free world.54

1.3 A commitment now to spend a large proportion of the defence budget after 2014 on a system without clear military application will undoubtedly harm the procurement prospects for our active service personnel, and by extension the ability of the armed forces to carry out the essential tasks future governments will require of them. It will lock the MoD into this option, when alternative nuclear and non-nuclear options may be more appropriate in the future as new technologies emerge, creating vulnerabilities and new opportunities.

1.4 We were promised that the White Paper would include extensive and detailed consideration of options and the basis behind them. Given the dangers, the onus was on the Government to justify an early decision. The White Paper, in two short sentences in the first appended Fact Sheet, fails to do this. It simply asserts the oft-repeated position that the maximum possible life expectancy of the submarines is 30 years (with extension) and that it will take 17 years to build a replacement (Trident took 12 years from agreement to initial launch, the point at which the White Paper chooses to measure the life expectancy). It ignores the points made by BASIC and other analysts that question these bold statements. It is clearly taking a worst-case scenario on life expectancy and main-streaming it, perhaps overly influenced by the negative experience with Polaris, an entirely different design. Given the redundancy built into the system (with four boats when only three are required for CASD), this is unnecessary.

54 Steps that were agreed at the 2000 NPT Review Conference.
1.5 There are four clear reasons for believing that the decision set out in the White Paper is premature and can be delayed for a further eight to 10 years.

1. **Longer life expectancy:** the life expectancy of the current submarines is probably much longer than stated, partly as a result of operational changes since the end of the Cold War.

2. **Dropping Continuous-at-sea Deterrence (CASD):** an option the Committee’s first report in June 2006 thought deserved consideration: a modest change in posture appropriate to today’s security environment could extend the life considerably, and was not addressed in any satisfactory manner by the White Paper.

3. **Reduced lead-times:** a less ambitious project, to simply modify Vanguard rather than create a new class of submarine, would reduce lead-times considerably.

4. **Point of no return:** modest investment in R&D now could put off an irreversible decision for some years.

1.6 A Parliamentary vote to put on hold a final decision would give the Government more time to provide the necessary information for an informed debate. At the very least the Committee should strongly recommend that Parliament make an explicit and binding commitment to revisit any decision it takes now, prior to Main Gate, with an open view as to whether it confirms, reforms or abandons the project.

**BASIC**

The British American Security Information Council (BASIC) is an independent research organisation that analyses government policies and promotes public awareness of defence, disarmament, military strategy and nuclear policies in order to foster informed debate. BASIC has offices in London and in Washington and its governing Council includes former US ambassadors, academics and politicians. Further information is available on our website: http://www.basicint.org

2. **Advantages to Suspending the Decision**

2.1 The benefits to deferring the decision for at least five years are overwhelming.

2.2 Maintaining maximum flexibility of response to possible threats and to new technologies makes military sense. Closing off options by making premature commitments to particular solutions can result in expensive cash and opportunity costs, particularly when lead-times are so long. UK military procurement is still suffering from costly legacy decisions (such as the purchase of Euro-fighter) made during the Cold War, which ended 17 years ago. A decision made closer to the point of deployment would mean being closer to the possible threats for which the system is designed and possess a superior understanding of appropriate needs. It would also give the MoD a better idea of the latest technology available, both for building appropriate systems, and in accounting for counter-measures. New technologies are likely to provide numerous cost and functionality benefits, such as miniaturisation of missiles, warheads and platforms. Yet this decision is locking the UK into a system that deploys massive D5 missiles, each capable of deploying 12 independently-targetted 100kt warheads. Already these missiles are far larger than that required by UK posture, which currently averages three warheads per missile, some of which only have a single warhead. While currently it is difficult to imagine a platform more stealthy than a submarine (a point made in the White Paper), this may not be the case in a decade’s time. Given the pace of technological change experienced today we can expect with certainty that superior counter-measures and solutions will be emerging on the market.

2.3 As the White Paper acknowledges, a Trident follow-on system would have to be compatible both with the (upgraded) Trident II D5 missiles and any (as yet undetermined) US follow-on missile. Relying upon the exchange of letters with Washington on 7 December 2006 would be courageous, so far in advance of the Americans’ decisions on a follow-on missile. Future US Presidents will be making decisions dominated by US technical and military requirements.

2.4 In April this year the Foreign Office is to sit down with nuclear negotiators around the world to find common ground in the search for elusive non-proliferation and disarmament agreements. A decision by Parliament in March to replace Trident, just a few weeks before, will severely weaken the UK delegation’s hand in demanding stronger non-proliferation commitments. It is the view of most governments that the Nuclear Weapons States have collectively failed to live up to their disarmament commitments under Article VI of the NPT, a fact acknowledged by the recent Shultz-Perry-Kissinger-Nunn article in the *Wall Street Journal*.

*The Non-Proliferation Treaty (NPT) envisioned the end of all nuclear weapons. It provides (a) that states that did not possess nuclear weapons as of 1967 agree not to obtain them, and (b) that states that do possess them agree to divest themselves of these weapons over time. Every president of both parties since Richard Nixon has reaffirmed these treaty obligations, but non-nuclear weapon states have grown increasingly skeptical of the sincerity of the nuclear powers.*
2.5 Such scepticism also applies specifically to the UK. While the UK Government has reduced warhead numbers and readiness, the pressure it can place on Iran and North Korea with the support of the rest of the international community is weakened while it clings to the utility of its own nuclear deterrence. An early decision to replace Trident shows a lack of confidence in the regime (while expecting others to demonstrate it). Many within the Iranian parliament, for example, have claimed that the NPT is no longer binding, because of the lack of effective disarmament agreements. Whatever the legal truth, the consequence is the same—a dangerously weakened non-proliferation norm.

2.6 A longer window for the decision would allow the UK to initiate a new multilateral nuclear disarmament initiative prior to any irrevocable investment in new nuclear systems. One of the key reasons given by some to retain (and replace) the UK nuclear deterrent is to enter international nuclear disarmament negotiations from a position of strength. A new initiative could be the central plank of Britain’s effort to secure progress in the run-up to the 2010 NPT Review Conference prior to any commitment to replace Trident.

2.7 Delay would ease pressure on the public purse in general, and on the defence budget in particular. Public spending plans in the run up to the 2007 Comprehensive Spending Review are under severe pressure. This decision is likely to create public and off-the-record resistance to achieving savings elsewhere in government spending. The defence procurement budget in particular is already unlikely to be sufficient to meet existing spending plans for 2011–20. The Prime Minister’s renewal of the covenant between the armed forces, government and the people outlined in his Portsmouth speech of 12 January, would appear particularly hollow if a decision to replace Trident meant fewer resources to an already over-stretched military. And if these resources do come from another government budget, these are resources that could otherwise be applied to properly equipping the forces.

2.8 Deferral would give the Government time to provide adequate information to give the public and parliament a chance to come to an informed view. Currently this is impossible. The three month process, while an improvement on the past, is grossly inadequate for a decision of this magnitude, and the information provided is insufficient. Consequently, the debate is often dominated by prejudice and presupposition.

3. INDUSTRIAL CONSIDERATIONS

3.1 The Defence Committee’s most recent report on Trident outlined concerns that the skills base for building a new generation of nuclear submarines in the UK is at a “critical level”, suggesting that an indigenous production capability may be at risk. Certainly, industry representatives are keen to see a new project follow on after Astute, warning that lengthy gaps could lead to a loss of key expertise. A report from the Rand Corporation, commissioned by the MoD specifically for the purpose of advising on how best to retain the submarine industrial base, suggests delaying the start of production of the next generation of submarines, to avoid a much larger gap at the end of SSBN production and the start of the next generation of submarine, the MUFC (Maritime Future Underwater Capability, the follow-on from Astute). However, exaggerated warnings of “catastrophe” from any delays should not frighten government into a hasty decision and over-ride the strategic defence needs of the country, which as the Committee concluded, must drive any future decisions, not industrial and employment factors.

3.2 In addition, a forthcoming report from BASIC that looks at the choices between investment in Trident replacement and renewable energy opportunities, suggests that far more employment opportunities could be created through alternative investment than those lost by the rationalisation or closure of the UK nuclear submarine manufacturing capability.

4. LIFE EXPECTANCY

4.1 The 1998 SDR and 2003 White Papers referred to a life expectancy of Vanguard of 30 years, as did ministerial statements prior to 2006. In its evidence to the Defence Committee in January 2006, the MoD reduced this for the first time to a more conservative base life expectancy of 25 years, with the possibility of extension, “albeit with gradually increasing cost and some increasing risk of reduced availability, perhaps out to the mid-2020s”. The White Paper measures this 25 years from the point of launch rather than commission. This brings forward the time for decision some seven years from that assumed by analysts previously, and by the MoD’s DLO Nuclear Cluster responsible for managing the strategic deterrent as late as August 2006 (they assumed an overall life of HMS Vanguard to last to 2024).


Q: Why was the life expectancy of the Vanguard submarine reduced by five years?

4.2 Operational changes introduced with the 1998 Strategic Defence Review (SDR) suggest a longer life-expectancy than 25–30 years. While the SDR retained a policy of Continuous-at-sea Deterrence (CASD), it also announced reduced readiness: the UK “will have only one submarine on patrol at a time”. This significantly reduced the number of at-sea hours for each submarine, in turn significantly reducing the stresses on both hull and reactor and thus increasing the life expectancy.

4.3 Most UK analysts believe that three boats are required to ensure that one is out at any one time (one on patrol, one in dock in preparation and one in refit). Four boats give added security in case of catastrophic damage or exceptionally poor performance and therefore, by providing redundancy give added life expectancy to the system as a whole. It also means that each boat is at out sea for only around a quarter of its operational life (which includes time in refit).

4.4 By contrast, American Ohio-class submarines are reported to be out to sea for roughly two-thirds of their operational life, yet the DoD has extended their life-expectancy from 30 to 44 years. The White Paper says that the Ohio class life extension cannot be replicated in the UK because such an option was not built into the original design, manufacture, refit and maintenance of Vanguard.

Q: Why were the Vanguard-class submarines apparently built to lower standards than the US Ohio-class submarines?

Q: Why is the same shipyard in line to receive the follow-on contract when it apparently failed to produce a lifetime cost-effective solution last time?

4.5 There are a number of projects already underway that can be expected to further extend the lives of the submarines. These include, for example, Rolls Royce working with the MoD’s Nuclear Propulsion IPT on an integrated support solution for the existing marine reactors.57 These extension projects were not and could not have been envisaged in the initial design of Vanguard, and it is difficult, at this stage, to see how MoD can be so certain of their impact in extending the life (by only five years in total).

Dropping CASD

4.6 The 2003 Defence White Paper stated that the UK faces no major conventional threat today or in the near future. The Defence Committee proposed the possibility of dropping CASD. Nine years ago the SDR had rejected dropping CASD on the grounds that any emergency launch of Vanguard could dangerously escalate tensions. The White Paper also argues that CASD is necessary to reduce vulnerability and assure the credibility of the deterrent. But such concerns are irrelevant to the main reasons given for replacing Trident—in particular the insurance against possible future risk. Dropping CASD would show British commitment to the further dealtering necessary to promote global non-proliferation, while maintaining a flexible deterrent if that is deemed appropriate. It would also dramatically increase the life expectancy of the current system, both by reducing stresses on the submarines today, and by providing for even greater surplus capacity in the system.

Q: Is a continuous-at-sea-deterrent necessary at a time when even the Prime Minister agrees there is no major nuclear threat to our strategic interests?

Halving the lead-time

4.7 The option of building new Vanguard-class submarines appears not to have been considered in the White Paper. Instead it proposes a whole new class of submarines that “might take around 17 years” to design, manufacture and commission, that will simply deploy modified Trident D5 missiles. This estimate “reflects the judgment of industry”. It is a worst-case estimate from BAE Systems, a company that knows it is in a monopoly position, negotiating with a government apparently keen to make an early decision.

4.8 The lead-time for the Vanguard-class submarines was 12 years from decision to launch (in 1992). This required major new designs from scratch to create a submarine that bore little resemblance to the previous Polaris-class boats. In contrast, in a slimmed-down and efficient procurement exercise, it may take two years to design minor upgrades to the Vanguard-class, and around five years to construct each submarine. The appropriate lead-time could therefore be seven rather than 17 years.

Q: Why should a minimum deterrent require a new class of submarine, and why should this take 17 years to design and build?

Q: How much faith should MPs put on the judgment of BAE Systems, a company still under the shadow of the Serious Fraud Office investigation abandoned in December 2006, and responsible for the MoD’s six most delayed major weapons projects (cumulative 25 years) and the five experiencing the highest overspends (nearly £3 billion)?

Q: Could a replacement submarine be purchased off-the-shelf from the Americans at a lower cost and with a much reduced lead-time?

The point of no return

4.9 Since the bulk of spending is loaded into the final stages of any replacement programme, namely in construction, modest investment in the preferred option need not require an irreversible commitment. The June 2006 Defence Select Committee report accepted this point, stating that a binding decision on the final option and any serious investment would not be needed until 2014. In fact, even if there was an urgency to commence work on the project, a point we would fiercely contest, there is no need to make a decision at this stage in the cycle to procure a new generation of SSBNs—simply a decision to work up the options for future procurement decision. In which case, at the very least, at this stage Parliament should withhold any decision to go ahead with the procurement of a new system, and instead agree to the government working up the options, and require the issue come back to Parliament prior to a Main Gate decision.

Q: Could a decision be made to invest in R&D while holding off on a “main gate” decision until the next parliament?

5. Conclusions

The White Paper fails to address the many issues raised by organisations querying the need for haste in replacing the Vanguard class submarines, and fails to provide the level of information promised for an informed debate. Instead, it relies on stating the government’s conclusions and asking us to accept them on trust. BASIC believes the underlying assumptions are based upon unnecessary worst-case perspectives, heavily influenced by commercial considerations, that will have damaging consequences for Britain’s role in the world, and for an efficient procurement process. We would urge the Defence Committee to exercise extreme caution before accepting the White Paper’s conclusions.

15 January 2007

Memorandum from the International Security Information Service (ISIS)

SUMMARY OF MAIN POINTS

One cannot simply transpose the Cold War deterrent posture into the type of threat scenarios Britain is likely to face in the future.

The Government needs to provide reassurance that it intends to maintain an extremely high threshold for nuclear use, specifically in relation to:

— Britain’s Negative Security Assurance.
— Deterring threats from chemical and biological weapons.
— The pursuit of military interventions overseas.

Further explanation is required as to how Britain’s nuclear doctrine is being adapted to meet smaller nuclear threats, including from those who sponsor nuclear terrorism.

The Government needs to explain more fully how it expects to reverse the proliferation dynamic other than within the context of a significantly reduced role for nuclear weapons in international affairs.

If present trends do lead to a world of multiple nuclear weapons possessors, the likelihood is that nuclear weapons will be used, whether deliberately or accidentally, by states or by terrorists, and that the consequences for Britain could be severe.

The Government should be pressed as to whether it agrees with that analysis and, if so, whether it is doing enough to prevent it becoming reality.
A. ROLE OF NUCLEAR DETERRENCE IN THE 21ST CENTURY

New deterrence scenarios

1. “The fundamental principles relevant to nuclear deterrence have not changed since the end of the Cold War, and are unlikely to change in future.” (White Paper, para 3–3, p 17).

2. The fundamental principles may not have changed but this should not be interpreted to mean that the Cold War deterrence model can be transposed to each and every other future scenario in which nuclear weapons are a factor.

3. Nuclear weapons are not a synonym with nuclear deterrence. This is not to deny that Britain’s weapons primarily are intended to act as a deterrent, or that they may perform this function: but we need to be clear that Britain’s nuclear weapons are only capable of deterring particular actions by certain actors in particular circumstances.

4. Any serious analysis of deterrence and how this relates to Britain’s nuclear forces, therefore, should involve disaggregating the term “nuclear deterrence”, including a focus on the context in which models of deterrence are being applied.

5. The threat to use Trident in order to deter a potential adversary from taking action against Britain’s vital interests has to be credible to be effective. In other words, the potential adversary has to believe that it is plausible that Britain might use nuclear weapons in response to his action. Depending on the action he is taking, he would have to calculate the likelihood that Britain might use its nuclear weapons and decide whether or not it was worth the risk.

6. A degree of uncertainty or ambiguity about whether or not Britain might retaliate with nuclear weapons is deemed to strengthen deterrence. The logic being that if the adversary knew precisely the circumstances in which Britain would use its nuclear weapons it could take action up to that point. Hence, the White Paper states:

7. “we deliberately maintain ambiguity about precisely when, how and at what scale we would contemplate use of our nuclear deterrent. We will not simplify the calculations of a potential aggressor by defining more precisely the circumstances in which we might consider the use of our nuclear capabilities. Hence, we will not rule in or out the first use of nuclear weapons.”58

8. An essential corollary though is that Britain needs to adopt a credible deterrent posture. If it makes unrealistic claims about the actions that it intends to deter with its nuclear weapons, and an adversary then tests these, and Britain does not then actually use its nuclear weapons—the deterrent posture will have been undermined and credibility lost.

9. In 1982, non-nuclear-armed Argentina rightly calculated that Britain would not retaliate with nuclear weapons when it invaded the Falkland Islands. For Britain to have used a nuclear weapon against Argentina itself—with the resultant widespread civilian casualties—would have been a disproportionate response that would have been condemned by the international community to a far greater degree than was the initial invasion.

10. The scenario around which nuclear deterrence was most commonly articulated during the Cold War was one in which Soviet Union and its Warsaw Treaty Organization (WTO) allies had invaded Western Europe and its forces were advancing towards the English Channel. Under those circumstances, whereby the United Kingdom’s very existence as an independent state was at stake, a threat to use nuclear weapons would have had far greater credibility than in the Falklands, for example.

11. Indeed, it is this scenario that encapsulates the public perception of deterrence, and is the image that is conjured up in the public mind whenever the term “nuclear deterrent” is mentioned. But it is a very precise scenario, constructed in a very particular historical context. Britain is subject of overt aggression by a military alliance with numerically superior conventional forces and is on the brink of invasion. In this situation Britain’s deterrent posture is clearly defensive, responsive and has strong credibility.

12. Clearly, with the Cold War over and the Soviet Union no longer a threat, this particular scenario no longer applies to Britain’s nuclear weapons. The question is whether it applies to other plausible scenarios against which Britain’s nuclear weapons might play a crucial and unique deterrent role, against which it is prudent to plan for?

13. Are there other potential crises for which our leaders are preparing a possible role for nuclear weapons: scenarios in which the UK may be instigating military action, where the stakes are not so high for the UK but are perceived to be much higher for the adversary?

14. “The UK’s nuclear weapons are not designed for military use during conflict but instead to deter and prevent nuclear blackmail and acts of aggression against our vital interests that cannot be countered by other means.” White Paper, Para 3–4, p 17.

15. Informed speculation vis-à-vis a possible future confrontation with a nuclear-armed Iran might illustrate some of the issues at play here. (An exercise that Government is unable to conduct publicly.)

16. What if Iran does succeed in developing and then deploying nuclear weapons? Could Britain’s nuclear weapons play a role in deterring any possible aggressive Iranian intent in the region? If used to back up a wider policy of containment, including the deployment of conventional forces in the region, perhaps they could (although it is difficult to imagine what they would add if the US were directly engaged as well).

17. But what if deterrence failed: Iran invaded and took control of part the Middle East oilfields, and subsequently brandished its nuclear weapons in an attempt to hold the West to ransom for access to energy supplies? Indeed it is probably a scenario such as this that the Government has in mind when it refers to the need to deter and prevent nuclear “blackmail”. How realistic is it to think that the threatened use of nuclear weapons after the event would bring about withdrawal, or that a British government could win domestic or international support for such an action?

18. What if Britain and the international community were faced with another scenario akin to the one involving Iraq in 2002–03—only this time involving a nuclear-armed Iran? Could a UK Prime Minister successfully make a case to the British people that he wanted to use military means to disarm Iran forcibly and that this could well result in a nuclear war in the Middle East? Surely his chances of winning majority public support would be negligible. Moreover, in such a scenario, with the Iranian regime probably defending its national survival and the UK embarking on a “war of choice”, whose nuclear threats would carry most weight?

19. “...there is a risk that some countries might in future seek to sponsor nuclear terrorism from their soil. We must not allow such states to threaten our national security, or to deter us and the international community from taking the action required to maintain regional and global security.” (White Paper, Executive Summary, p 6).

20. “Any state that we can hold responsible for assisting a nuclear attack on our vital interests can expect that this would lead to a proportionate response.” (White Paper, para 3–11, p 19).

21. The key issue here is whether or not Britain could prove that such assistance was derived from a particular source. To this end the Government intends to strengthen Aldermaston’s capabilities. Notwithstanding, the technical challenge involved (about which this author cannot offer an assessment), it would be a highly charged political act to deliver a strike commensurate with, if not actually involving, a nuclear weapon against another state on the basis of forensic evidence alone.

22. How Britain would prove not only that the source of the fissile material was from facilities operated by a particular state, but also that its presence in a nuclear device used against the UK was there as a result of deliberate collaboration from the government of that particular state may be highly problematic. It would be difficult for Britain to launch a nuclear retaliatory strike against the guilty party on the basis of ‘balance of probability’, as opposed to cast iron proof.

Preserving the Nuclear Threshold

23. Due to their unique characteristics—scale of destructive power and long-lasting radioactive fallout—nuclear weapons remain in a category separate from, and above, conventional weaponry. Traditionally, the major powers—including Britain—have recognized the significance of the distinction and consequently to preserve the nuclear “threshold”.


25. Arms controllers have been keen to raise, or at least preserve, the level of that threshold as a means of preventing the use of nuclear weapons.

26. According to international humanitarian law, states that use force must do so with discrimination not make civilians the object of attack. Nor should states cause unnecessary suffering. In other words, they are prohibited from causing harm to combatants greater than that which is absolutely unavoidable to achieve legitimate military objectives.

27. “Recourse to nuclear weapons could never be compatible with the principles and rules of humanitarian law and is therefore prohibited. In the event of their use, nuclear weapons would in all circumstances be unable to draw any distinction between the civilian population and combatants . . . and their effects, largely uncontrollable, could not be restricted . . . to lawful military targets. Such weapons would kill and destroy in a necessarily indiscriminate manner, on account of the blast, heat and radiation occasioned by the nuclear explosion and the effects induced; and the number of casualties that would ensue would be enormous. The use of nuclear weapons would therefore be prohibited in any circumstance, notwithstanding the absence of any explicit conventional prohibition.” (International Court of Justice Report, 8 July 1996, para 92).

28. The circumstances under which Britain’s nuclear weapons might be used are, therefore, an extremely important aspect of this entire debate. Any suggestion that Britain or any other nuclear weapon state might be attempting to lower the threshold deserves to be subject to very careful scrutiny, as this would have major potential implications for non-proliferation and international security.
29. The more that the nuclear weapon states appear to be expanding the roles afforded to their nuclear weapons the greater are the implications for the non-proliferation regime. This is because the deal underpinning the entire non-proliferation regime, embodied in the Nuclear Non-Proliferation Treaty (NPT), is that those states entitled to retain nuclear weapons (pending their eventual abolition) do so on the basis that they gain no explicit coercive military advantage over non-nuclear weapon states by so doing.

30. That is why the five acknowledged nuclear weapon states have provided negative security assurances (NSAs) to non-nuclear weapon states parties to the NPT. The UK issued its NSA in 1978. In 1995 these assurances—including the UK’s—were reiterated and strengthened into political commitments to coincide with the indefinite extension of the NPT. Although these are not legally binding they do constitute very important political commitments.

31. “The United Kingdom will not use nuclear weapons against non-nuclear-weapon States parties to the Treaty on the Non-Proliferation of Nuclear Weapons except in the case of an invasion or any other attack on the UK, its dependent territories, its armed forces or other troops, its allies or on a State towards which it has a security commitment, carried out or sustained by such a non-nuclear-weapon State in association or alliance with a nuclear-weapon State.”

32. Again, the provision of these assurances was an extremely important element of a package of measures offered to non-nuclear weapons states by way of reassurance that their continued abstinence would not result in any diminution of their security vis-à-vis being subject to nuclear threats from others.

33. As a corollary, the nuclear weapon states offered positive security assurances by way of stating their commitment to come to the assistance of non-nuclear weapon states that found themselves subject to nuclear threats, or which became victims of actual nuclear attack.

34. Hence, it is extraordinary that this White Paper contains no reference to the UK’s Negative Security Assurance. Its omission deserves explanation by the Government and reassurance that the United Kingdom remains committed to its terms. If this is no longer the case it could have profound implications for the non-proliferation regime.

35. This leads naturally to a closer examination of UK nuclear doctrine.

UK nuclear doctrine

36. The White Paper states:

“We would only consider using nuclear weapons in self-defence (including the defence of our NATO allies), and even then only in extreme circumstances. The legality of any such use would depend upon the circumstances and the application of the general rules of international law, including those regulating the use of force and the conduct of hostilities.” (Para 2–11, p 14.)

37. (The question of legality will be considered in the second part of this submission.) The language of the White Paper compares to previous statements by the then Defence Secretary in 2002 who said that Britain’s nuclear weapons “... would be used only in what are described as extreme conditions of self-defence I can stress that nuclear weapons would be used proportionately and consistently with our obligations in international law.” (Rt Hon Geoff Hoon, Secretary of State for Defence, Official Report, 17 June 2002, Column 11.)

38. In 2004, a Foreign Office Minister said that “the circumstances in which any use of nuclear weapons might have to be contemplated would be extremely remote, and that we would use them only in extreme circumstances of self-defence and in accordance with our obligations under international law.” (Bill Rammell, 16 March 2004, col 297.)

39. This might give the impression that only if the UK were on the point of invasion or had already been subject of nuclear attack, would the British government even contemplate using its nuclear weapons. On that basis, in the absence of an overwhelming military power, that has territorial ambitions towards the UK itself, it would be almost impossible to imagine when the UK might even need to think about launching its nuclear weapons in anger.

40. But before drawing such a conclusion one first needs to explore this language more closely, including the refusal to adopt a “no first use” policy (repeated in the White Paper in para 3–4, p 18).

41. The government continues to rule out a ‘no nuclear first use’ policy because it wants to retain the option of being the first to use nuclear weapons in conflict. This stance was originally predicated on a Cold War scenario whereby the only means of stopping an onslaught by numerically superior WTO conventional forces might need to be the use of nuclear weapons. Yet, today there are no conventional forces that are superior to those of the Western Alliance of which Britain is part.

59 The caveat within this statement—repeated in those of the US, France—was intended to http://209.85.135.104/search?q=cachefY3W7e4JE:www.isisuk.demon.co.uk/0811/isis/uk/regpapers/—4address the specific circumstance of an invasion of Western Europe by forces of the Warsaw Treaty Organization (WTO) (consisting of a nuclear-armed Soviet Union and its non-nuclear-armed allies of Eastern Europe). In that scenario Britain’s NSA would not apply to the Soviet Union’s WTO allies.
42. The scenarios about which the British Government (along with US, Russian and French governments) appears concerned nowadays relate to deterring the use of chemical and biological weapons (CBW). Moreover, this may not be confined solely to retaliation to the use of such weapons but also extend to pre-emptive use against such weaponry.

43. In a previous White Paper, entitled *Defending Against the Threat of Biological and Chemical Weapons*, the MoD says that it seeks to deter the use of CBW by assuring potential aggressors of three related outcomes, one of which is that it would “invite a proportionately serious response”.

44. In 2002, prior to the invasion of Iraq, the then Defence Secretary said:

*Let me make . . . clear the long standing British government policy that if our forces—if our people—were threatened by weapons of mass destruction we would reserve the right to use appropriate proportionate responses which might . . . in extreme circumstances include the use of nuclear weapons.*

*Cleary if there were strong evidence of an imminent attack if we knew that an attack was about to occur and we could use our weapons to protect against it.*

45. This expands the circumstances in which the Government would be prepared to use its nuclear weapons significantly beyond that of when the UK is on the point of being invaded or when it had already been subject to nuclear attack. This contemplates using nuclear weapons not only in retaliation against a country that has used chemical or biological weapons against UK territory, but also if it has used them against UK forces. And not only in retaliation, but, first against a country that does not possess nuclear weapons and that Britain is itself about to invade.

46. Not only is this a significant statement in its own right, it would also appear to contradict Britain’s negative security assurance (NSA).

47. Although the Prime Minister subsequently stated that Britain’s nuclear weapons would not be used against Iraq—echoing Prime Minister Major’s pledge prior to the first Gulf War—the government was clearly considering how Britain’s nuclear weapons, and the threat of their use, might be applied in regional conflicts.

48. There is a concern amongst some observers that perhaps Britain’s nuclear forces are now being afforded new ‘deterrence’ utilities over and above the strictly defensive deterrent role encapsulated in the Cold War scenario outlined above.

49. This shift reflects a change that has already occurred in US policy. It was the Clinton Administration that pointed out the legitimacy of invoking the long-standing international law doctrine of belligerent reprisal, if it was attacked with CBW.

50. Essentially, the US and UK postures mean that if non-nuclear-armed states use CBW at a significant level and in an indiscriminate manner, they can hardly expect the niceties of NSAs to be observed or their protection they a

51. The British Government (and US Government) seems to be saying that if Britain can more effectively deter those willing to contemplate the massacre of large numbers of innocent people with CBW by not ruling out nuclear retaliation, then they should leave open the option.

52. Nevertheless, to remain consistent with the criteria of proportionality, discrimination and effectiveness, nuclear weapons could only be used if the overall harm inflicted was clearly outweighed by the good achieved and the long-term harm averted.

53. For political, humanitarian and practical reasons the use of Britain’s nuclear weapons against Iraq would have been inappropriate, disproportionate, morally repulsive and proved highly counter-productive. Breaking the nuclear taboo and killing potentially thousands of innocent Iraqis on the basis of the tactical use of chemical or biological weapons by the Iraqi leadership would not have been sensible, proportionate or defensible.

54. To have used British nuclear weapons pre-emptively, on the basis of what the regime may have been about to do, would have been even more difficult to justify. Indeed, with Saddam Hussein knowing that he was doomed his best chance of winning international sympathy would have been to provoke nuclear retaliation.

55. Even in the extreme circumstance whereby nuclear use were judged to be the only effective means of preventing potentially catastrophic use of Iraqi CBW, it is likely that the ‘cure’ would have been worse than the “disease”.

56. It would be far better to confine any pre-emptive or retaliatory action to the use of accurate and more discriminating conventional weaponry.

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57. It would appear that the doctrine outlined above does encompass the pre-emptive use of Britain’s nuclear weapons to forestall an imminent threat to the UK territory, forces or allies. And that threat would not necessarily have to be from nuclear weapons—it could also be from chemical or biological weapons. Indeed, it may even extend to threats from conventional weaponry.

58. If British policy now endorses the possible use of nuclear weapons against non-nuclear-armed states (and especially so against those not armed with any form of WMD)—even when that use is justified through an act of self-defence, in extremis and within the confines of international law—it needs to be clearly stated. The implications for Britain’s NSA should also be explained.

Sub-Strategic Capability

59. Another noticeable absentee from the White Paper is any reference to the sub-strategic role of Britain’s nuclear weapons. Essentially, the sub-strategic nuclear capability was articulated as performing a “pre-strategic” role. It would entail the firing of a single warhead (probably of limited yield) to demonstrate to an adversary that he should desist from his aggression or Britain would escalate to all-out strategic use.

60. The sub-strategic role was described in the Committee’s Eighth Report thus:

“... a sub-strategic strike would involve the launch of one or a limited number of missiles against an adversary as a means of conveying a political message, warning or demonstration of resolve. Commodore Hare told us that this sub-strategic role “offers the Government of the day an extra option in the escalatory process before it goes for an all-out strategic strike which would deliver unacceptable damage to a potential adversary”.

“Although the Government has revealed little information about the precise number and yield of UK warheads, it is widely believed that Trident missiles intended for this sub-strategic role carry only a single warhead, potentially with a significantly reduced yield”.

“It is important not to confuse this sub-strategic role with a tactical role. Trident is not designed or intended to fulfill a tactical role on the battlefield.” (paras 41–42.)

61. The Committee may want to ask the Government to clarify whether this role remains a component of Britain’s nuclear doctrine, or whether this “pre-strategic” “signaling” function is no longer necessary.

62. Instead, the White Paper places emphasis on the importance of lower yield warheads in making deterrence against smaller nuclear threats more credible:

“... the ability to vary the numbers of missiles and warheads which might be employed, coupled with the continued availability of a lower yield from our warhead, can make our nuclear forces a more credible deterrent against smaller nuclear threats.” (Para 4–9, p 23.)

63. The reasoning here is that if Britain can only threaten an all-out nuclear strike this will lack credibility when faced with more limited threats posed by smaller nuclear-armed powers.

64. There is a danger, however, that the deployment of lower yield warheads in the context of meeting threats posed by smaller nuclear threats will lower the nuclear threshold and increase the likelihood of nuclear use to achieve more limited, war-fighting objectives. In other words, the sub-strategic function becomes a tactical one.

65. Further doubts must be placed upon the credibility of threatening to launch a limited nuclear strike against a smaller nuclear-armed state that has not itself used nuclear weapons first.

66. This specific point was addressed by Sir Malcolm Rifkind, when he was Defence Secretary, in 1993:

“There is sometimes speculation that more so-called ‘usable’ nuclear weapons—very low-yield devices which could be used to carry out what are euphemistically called ‘surgical’ strikes—would allow nuclear deterrence to be effective in circumstances where existing weapons would be self-deterring.”

“I am thoroughly opposed to this view. The implications of such a development of a new war-fighting role for nuclear weapons would be seriously damaging to our approach to maintaining stability in the European context, quite apart from the impact it would have on our efforts to encourage non-proliferation and greater confidence outside Europe. This is not a path that I would wish any nuclear power to go down.” (Addressing the Centre for Defence Studies, London, November 1993.)

67. The present Government should be challenged to say whether Sir Malcolm’s views still represent an accurate representation of British Government policy: and if they do not, in what respects.

Pressing the Button

68. For nuclear deterrence to retain credibility requires the UK Prime Minister to indicate his or her preparedness in extremis to use Britain’s nuclear weapons. The mere presence of UK nuclear weapons is likely to have at least some bearing on the calculations made by any potential adversary, regardless of what any Prime Minister might say about their intentions to use the country’s nuclear weapons.
69. Nevertheless, Tony Blair has stated publicly that he would be prepared to press the button. “You do have to be prepared to use it and I do make that clear.” \(^{62}\) At some point his successor as Prime Minister will be asked to confirm the same. As long as the Prime Minister does not exclude the possibility of use under any circumstances, British nuclear weapons may serve a deterrent effect.

70. It is difficult to square a preparedness to use Britain’s nuclear weapons with the Prime Minister’s other humanitarian pronouncements, especially in respect of targeting despotic regimes, rather than those they subjugate. A Trident nuclear warhead is an extremely blunt instrument of death and destruction and in that sense is incompatible with the modern, more discriminatory application of military force, which, in other contexts, Tony Blair is keen to advocate.

71. In the Prime Minister’s defence, it is possible to make a case that by threatening to use nuclear weapons in retaliation one is—through deterrence—actually preventing war from starting and thereby saving the lives of all those who would have died in such a war. In other words, signaling intent to commit mass slaughter in order to prevent it ever happening.

72. This sounds persuasive until and unless one is faced with the ultimate choice. At which point a British Prime Minister may have to decide whether to concede to an adversary a degree of military and political cost to Britain’s interests or to carry out its threat to use nuclear weapons to forestall such cost. It is quite conceivable that because the latter would probably provoke worse ramifications than the former, it makes sense to rely on other, conventional, military options. In which case, strengthening non-nuclear deterrence options in preparation may make more sense than an over-reliance on the nuclear option.

73. Another problem is balancing the Prime Minister’s insistence on the UK retaining the option of using nuclear weapons, against the dangers of legitimizing other political leaders enjoying the same right. This would be particularly pertinent in relation to those leaders who may be less scrupulous about exercising it, or who prevail in regions where they are far more likely to be faced with the choice about whether or not to push the button, than is Tony Blair.

74. It is critical that British Prime Ministers continue to view nuclear weapons as being in a special and distinct category of their own, and not just as another—albeit most powerful—weapon in the arsenal. The threshold for nuclear use must be kept high and raised higher: not lowered, as it might be under pre-emptive and preventive war doctrines.

B. THE IMPACT OF THE DECISION TO REPLACE TRIDENT ON UK’S NON-PROLIFERATION EFFORTS

The changing nature of nuclear threats

75. The Defence Committee has already examined the nature of the existing and future nuclear threat. The following is a summary of my conclusions in this respect and is necessary to include here because it informs my subsequent assessments—especially in relation to the importance of denuclearization in achieving successful non-proliferation.

76. According to The UN Secretary-General, Kofi Annan:

“We also face a real threat that nuclear weapons will spread. Without concerted action, we may face a cascade of nuclear proliferation,” (speaking at a conference in Hiroshima, 5 August 2006.)

77. If the world reaches this stage, then it will be hugely more difficult to deal with the problem. We might be faced with 15, 20, perhaps 30 national nuclear weapon programmes; massive new investment being poured into developing nuclear weapons; tons of weapons-grade fissile material being produced; and hundreds of people acquiring the knowledge of how to make nuclear weapons.

78. How many of these new proliferant states will be able to establish safe, secure, well managed programmes under centralized control—and how many not? Hopefully, they would all be able to develop robust command and control procedures that would function well in crises, but the expectation must be that a proportion will not. Some new proliferants may be democracies; others will be authoritarian regimes. Some governments may well be relatively stable, others far less so.

79. In addition, there would be the extremist and fundamentalist terrorist groups with growing opportunities to acquire the wherewithal to acquire nuclear weapons of their own. Almost inevitably, there would be many more potential A Q Khans around—willing to sell nuclear “know how” and blueprints to the highest bidder.

80. To believe that such a world might settle at a new equilibrium of multiple deterrent relationships would be dangerously complacent. Unpredictable governments developing weapons of mass destruction in volatile regions of the planet, with inadequate command and control mechanisms, reliant on “use them or lose them” doctrines, would vastly increase the risks of nuclear war if whether started deliberately or accidentally.

81. This is a vision of the future that should frighten every policy maker in every capital around the world. Most analysts probably believe this is the future towards which the world is now heading.

82. Hence, I would list contemporary and foreseeable nuclear threats in order of importance as follows:

— A regional nuclear war between two nuclear-armed states through misunderstanding or deliberate act (for instance—India/Pakistan, North Korea/South Korea, Iran/Israel) in volatile regions of the world with unstable deterrence and “hair trigger” alert status adding to the likelihood of use.

— The insecurity of nuclear weapons, material and expertise, especially within states that collapse or experience internal conflict, and a nexus with terrorists gaining access to a nuclear weapon or sufficient weapons-grade fissile material to make a nuclear weapon, which they then threaten to use and/or actually use.

— Nuclear-armed state directly threatens the UK’s vital national interests.

— Accidental nuclear war between the major nuclear powers.

83. These threats have been re-ordered since Cold War days. Deterrence is only relevant to meeting one of these four threats. It is non-proliferation policy that has the primary role to play in meeting the main nuclear threats. Questions need to be asked whether the continued pursuit of a national nuclear capability and its accompanying force posture might in some way serve to undermine Britain’s efforts to counter these other nuclear threats.

84. The challenge is how to reduce and/or eliminate these nuclear threats. We need to:

— Prevent additional states acquiring nuclear weapons.

— Reduce the number of states with nuclear weapons programmes and further reduce the actual number of nuclear weapons.

— Assist those states embarked upon nuclear disarmament to safely dispose of nuclear weapons, guard and neutralise weapons-grade materials, and ensure that nuclear weapons expertise is securely re-assigned to other employment.

— Press for all nuclear weapons to be taken off hair trigger alert, and provide assistance to states with their command and control procedures, and confidence-building measures, within the context of moving towards denuclearization.

— Marginalise nuclear weapons within security strategies and international affairs by reducing their purpose to that of deterring other nuclear weapons—remove their coercive role.

— Begin a new multilateral process of denuclearization, involving carefully staged reductions in nuclear weapons and posture with a view to achieving the ultimate elimination of all nuclear weapons.

Trident, non-proliferation and disarmament

85. The White Paper acknowledges that the ultimate goal of Britain’s policy is a world without nuclear weapons, while making the case that Britain needs to maintain its nuclear weapon capability in the absence of any multilateral agreement to that end.

“None of the present recognized nuclear weapon states intends to renounce nuclear weapons, in the absence of an agreement to disarm multilaterally, and we cannot be sure that a major nuclear threat to our vital interests will not emerge over the longer term.” (White Paper, Foreword by the Prime Minister, p 5.)

“Renewing our minimum nuclear deterrent . . . is also consistent with our continuing commitment to work towards a safer world in which there is no requirement for nuclear weapons.” (White Paper, p 7.)

“We are committed to retaining the minimum nuclear deterrent capability necessary to provide effective deterrence, whilst setting an example where possible by reducing our nuclear capabilities, and working multilaterally for nuclear disarmament and to counter nuclear proliferation. We believe it is the right balance between our commitment to a world in which there is no place for nuclear weapons and our responsibilities to protect the current and future citizens of the UK.” (White Paper, p 8.)

86. Essentially there is a tension in policy between extolling the value of nuclear weapons for Britain’s security while seeking to deny such capability to others. The danger is that by affording nuclear forces a high importance within national defence and security strategies we undermine our efforts to persuade other states that they can do without such forces themselves.

87. This “double standard” argument is not merely a superficial debating point; it goes to the heart of the link between nuclear weapon possession and non-proliferation. It prompts the fundamental question as to whether it is possible to tackle proliferation effectively, while still insisting that nuclear weapons are necessary for Britain’s security, but not for others?

88. Is it possible to forge a stable, robust international non-proliferation regime based on an essentially discriminatory division between possessors and non-possessors? The Government appears to believe that it is. After all, this is exactly the distinction that the Nuclear Non-Proliferation Treaty (NPT) sustains.
89. This is true, but only up to a point and for how much longer? The essential bargain contained in the NPT, between those States Parties who possess nuclear weapons and those who agree to forego them, was never intended as a permanent basis upon which to order the world. Most analysts—including the UN Secretary General—now agree that the entire non-proliferation regime is creaking under the strain, and unless we address its underlying problems it may disintegrate with dire consequences for all of us.

90. This is especially true in relation to the coercive value afforded to nuclear weapons vis-à-vis non-nuclear weapon states (as set out in the first part of this submission). If the role of nuclear weapons can be confined simply to the deterrence of other nuclear weapons it is possible to establish a logical construct within which the incentive to acquire nuclear weapons is substantially reduced.

91. On the other hand, when nuclear weapons are given new, more “pro-active” roles within more overtly aggressive security strategies this can have a deleterious impact on non-proliferation policy.

92. In a number of respects Britain is the best example of all of the five acknowledge nuclear weapon states. It only uses a single weapon system, has the smallest arsenal of warheads, maintains a “stable” force posture, and is transparent about the extent of its nuclear capability.

93. Britain has also played an active role in arms control talks and in securing the successful negotiation of number of relevant treaties. It continues to push for a strengthening of non-proliferation controls. All of which it deserves credit for. And one has to appreciate the limits of what one country can achieve within the multilateral context.

94. Nevertheless, the British Government’s approach seems to be predicated on an assumption that successful non-proliferation can be achieved in the context of a privileged handful of states—including the UK—continuing to assert the importance of national nuclear forces in their security strategies, and prior to any serious consideration of denuclearization.

95. (I define “denuclearization” as a staged process of reduction in numbers of nuclear weapons; adjustments in force postures that marginalize nuclear weapons; further restrictions on the circumstances in which their use would ever be considered; and the conscious intent to work towards the global elimination of all nuclear weapons.)

96. The contrary view is that it is highly questionable as to whether it will prove possible to reverse the proliferation dynamic other than within the context of a significantly reduced role for nuclear weapons in international affairs—up to the point, and perhaps including, complete nuclear disarmament.

97. What is needed is for the existing nuclear powers to get around the negotiating table, thrash out their mutual commitment to such a course and set out a detailed “road map” of how to go forward.63 The starting point should be to negate nuclear weapons’ coercive influence in international relations between nation states: to devalue them as instruments of political power. The only purpose of nuclear weapons, pending their possible complete elimination worldwide, would be to negate their possession by others.

98. Although actually setting the goal of trying to achieve a world without nuclear weapons is important it does not necessarily follow that the ultimate achievement of such an objective can or will be reached. The important point is the degree to which the intention is serious and sincere, and the consequent level of commitment devoted to reaching the ultimate goal.

99. The further necessary steps to complete denuclearization might prove impracticable to take for any number of reasons. Nevertheless, we can travel a lot further down the road of nuclear confidence building, arms control and disarmament before such an ultimate decision stage is reached.

100. Britain should take a lead by proposing the establishment of a new international nuclear settlement based on a shared vision of: no more nuclear weapon proliferation; reduced salience of existing nuclear arsenals; staged and conditional multilateral denuclearization; and a strict verification and compliance regime.

101. In the foreword to the White Paper Tony Blair wrote:

“None of the present recognized nuclear weapon states intends to renounce nuclear weapons, in the absence of an agreement to disarm multilaterally, and we cannot be sure that a major nuclear threat to our vital interests will not emerge over the longer term.”

102. This is true. But it represents a worrying acceptance of defeat in the battle against proliferation and complacency about the consequences of that defeat. Britain is not a passive bystander unable to shape the future. It is a country with a proud tradition of negotiating arms control treaties and retains significant diplomatic influence. It could take the lead in trying to forge a new international nuclear settlement.

103. The alternative is that unless we do reverse the proliferation dynamic, major new nuclear threats will emerge in the future. In a world of 30 or so nuclear states, eventually we can expect that there will be a nuclear war, whether started deliberately or accidentally, and that terrorists will succeed in getting their hands on the means of committing mass slaughter. Britain may not be directly involved in a nuclear war but it cannot expect to avoid its potentially horrendous political, economic, and climatic fallout.

104. In a world of 30 nuclear weapon states Britain would still want to retain its national nuclear forces. Unfortunately, in such a world Britain would be far less safe from nuclear threats than it is today. If that analysis of current trends is correct it suggests that the governments of the major powers, including Britain, need to make a more determined effort to change those trends. It is difficult to see how they can succeed on the non-proliferation front without embarking on a parallel, multilateral demilitarization process.

18 December 2006

Memorandum from Dr Jeremy Stocker

Introduction

1. The following commentary on Cm 6994 is forwarded in addition to evidence previously submitted to the Defence Committee, and published in HC 986 Ev 100–103. It draws on research undertaken for the author’s forthcoming IISS Adelphi Paper Nuclear Deterrence in the United Kingdom2. The IISS intends to supply members of the Committee with advance copies of the paper in advance of the Commons debate in March.

2. The current debate has often been conducted in terms of a Trident replacement. In fact, as the White Paper makes clear, the issue is maintenance of the deterrent, requiring some expenditure in order to retain the existing capability. Some components need replacement (not Trident itself), others some refurbishment and upgrade.

3. One could therefore question why a full-blown policy debate is needed at all. But Trident was being procured just as the Cold War was ending. There were no major procurement decisions then required, which might have necessitated a comprehensive review of UK nuclear weapons policy. Though all other nuclear systems had been eliminated by 1998, little change was made to Trident other than the introduction of an ill-defined “sub-strategic” capability. No comprehensive review of post-Cold War deterrence needs has been conducted, certainly not in public, so now may be as good a time as any.

Retention of the Deterrent

4. The White Paper makes a compelling case for retention of the UK’s strategic nuclear deterrent, principally on the basis of future uncertainty in a world in which nuclear weapons continue to exist. Like previous Government statements, it pays lip-service to eventual nuclear disarmament, but the decision to renew the current capability makes it plain that the Government does not expect this aspiration to become a reality within the foreseeable future. The recognition that nuclear weapons will remain with us is both sensible and inevitable: a nuclear-free world is not currently on offer.

5. Para 3–4 says the focus is on preventing nuclear attack. The White Paper does not say what role, if any, the nuclear deterrent might have in deterring the use of other WMD, noting that nuclear weapons are the only WMD the UK possesses. Nuclear weapons also have a general war-prevention role as their presence tends to induce restraint. This also is not acknowledged in the White Paper. It does discuss their role in relation to state-sponsored nuclear terrorism in a way that is sensible and appropriate. Given the practical difficulties inherent in acquiring or assembling a nuclear device, future nuclear-armed terrorism is much more likely than not to have state support.

Deterrence

6. Section 3 Nuclear Deterrence in the 21st Century says more about the requirement for deterrence than about how deterrence might actually work. The White Paper does re-iterate the UK’s policy of “studied ambiguity” as to how and when nuclear weapons might be used. Given the “To Whom It May Concern” nature of today’s deterrence needs this is to some extent inevitable. In a particular crisis, however, the Government might need to be a lot more specific, and in order to do so needs to have thought-through deterrence mechanisms in advance.

7. The British approach to nuclear deterrence has always been based on deterrence by “punishment”: the threat of retaliation, the cost of which would outweigh the benefits of the original action. The other approach to deterrence is “denial”, the ability to defeat the action itself, so demonstrating its futility in the first place. The White Paper makes a passing reference to missile defences as potentially reinforcing deterrence, but gives no further indication of current MoD thinking in this area.

8. The White Paper does not deal with some fundamental challenges to deterrence in the “second nuclear age.” Absent an overwhelming threat such as the Soviet Union, the credibility of a nuclear response to limited aggression must be in doubt. In particular, opponents in future crises may have more at stake (including regime survival) than do western powers. The latter may have “vital interests” involved but not national or regime survival. Regional challengers may have fewer scruples when contemplating civilian casualties, and may be willing both to inflict and to suffer greater costs than are western governments. The
latter need to have thought-out very carefully the risks of being self-deterred in the face of a more determined and less scrupulous opponent. These potential difficulties with retaliatory deterrence provide a strong imperative towards deterrence by denial capabilities—defences.

NON-PROLIFERATION

9. Cm 6994 provides a brief summary of the UK’s non-proliferation efforts, which are considerable. Curiously, Annex A on the subject makes no mention of the most important instrument, the Non-Proliferation Treaty (NPT), though it is in the main body of the White Paper and in an accompanying fact sheet. The manner of presentation suggests it is included to demonstrate the UK’s non-proliferation virtue in order to soften the blow of nuclear weapons renewal. But deterrence and non-proliferation are not incompatible: they seek to address the same problem—proliferation—by different means.

10. The Government is right to assert that retention of nuclear weapons is not “illegal”. It is also true that the effects on others of a British “example” in giving up its weapons would be slight, if at all discernable. Possession of nuclear weapons is above all a strategic matter, in which law and morality have at most marginal relevance.

DETERRENT ALTERNATIVES

11. Annex B of the White Paper contains an assessment of four alternative configurations for a future deterrent capability. It is no surprise that it concludes the present type of deterrent better meets the UK’s needs than the other options considered. Probably the most credible or attractive alternative would be submarine-launched cruise missiles, which is not considered as one of the four options. Cruise missiles are examined elsewhere, however, and the White Paper correctly concludes that ballistic missiles offer several advantages over cruise. Interestingly, Section 4 introduces the requirement to “deter threats anywhere in the world”, which implies that the platform and delivery system in combination must be able to reach anywhere in the world, which only a submarine-based ballistic missile can do.

THE WARHEADS

12. The 1998 SDR reduced the number of warheads in each submarine to 48 from a previous ceiling of 96, though in fact no more than 65 were actually ever carried. “48” is now replaced by “up to 48”, introduced to allow greater flexibility. Exactly 48 allows for relatively few permutations of multi-warhead strategic and single-warhead (“sub-strategic”) missiles.

13. The existing warhead can be maintained into the 2020s. Yet to be determined is whether it can then be extended in service or whether a new warhead will be required, for which additional spending at AWE Aldermaston will be needed. The White Paper does not explain why it might not be possible to re-manufacture warheads to the present design, using the existing stockpile of fissile material.

14. There is no mention in the White Paper of the “sub-strategic” role for Trident. This may be because any use of a nuclear weapon, of whatever size, would be very “Strategic”. Instead Cm 6994 makes reference to a range of yields for the warhead, though provides no more details. It is widely conjectured that the Trident warhead’s full fusion yield is about 100 kilotons, the same as the US W–76 warhead on which it is based. By detonating only the boosted or un-boosted fission primary, yields of about 10 or one kiloton respectively could be obtained. If a new warhead is to be developed in the future, the opportunity could be taken to provide a range of (probably reduced) yields to increase operational flexibility. A further gesture could be made in the direction of disarmament by declaring the size of these yields.

15. The White Paper does not mention the American Reliable Replacement Warhead (RRW) programme, though a new warhead for Trident, if required in the 2020s, would have much the same requirements. The US has not designed a new nuclear warhead any more recently than has the UK, and there are signs that future cooperation in warhead design would be welcomed by both countries.

16. No operational justification is offered for the 20% reduction in “operationally available” warheads. This measure may have more to do with diplomatic and domestic political gestures than the requirements of a “minimum” deterrent, the minimum size of which has been repeatedly reduced since the end of the Cold War.

THE MISSILES

17. It has been generally assumed that the submarines are the driving factor behind current decision timescales. However, the White Paper tells us that a decision on whether to participate in the Trident life-extension programme is required in 2007. This may be for programming or contractual reasons in the United States. Whilst no firm orders for submarines will be required for some years, it appears that a commitment to the life-extended Trident D5A is required now. In that sense it is the missiles driving current timescales.
18. The life-extension programme will take Trident through until 2042, when the last of the US Navy’s existing Ohio-class submarines will be decommissioned. At that point the RN’s new boats will be between 14 and 20 years old, with many years’ service remaining. The White Paper makes clear that the US Government has already given an undertaking that any successor to Trident (which the US Navy needs from 2029 onwards) will be made available to the UK, and that it will be compatible with the existing Trident launch system. This would appear to reduce the risk otherwise inherent in putting submarine and missile procurements on different timescales. Trident already meets likely future requirements, though greater accuracy would expand targeting options. It is therefore probable that the US Navy’s replacement for Trident will look very like Trident and may well be an updated derivative of Trident—perhaps a D5B or D6 variant.

19. The published Exchange of Letters between Tony Blair and George Bush contains one possibility not mentioned in the White Paper. This could be a further Trident life extension for UK purposes to take the missiles up to the out-of-service dates of the new submarines (at least 2053). Such a plan would repeat the experience with Polaris, which was kept in RN service for several years after it had been retired by the USN. This would put the platform and delivery system back on the same timescale, but at the cost of getting out of step, once again, with the Americans. The Polaris/Chevaline experience demonstrated the technical risks and financial costs of doing so. A decision on eventual Trident replacement will probably be required in the 2020s.

20. It is known that the submarine on deterrent patrol usually deploys with fewer than the maximum 16 missiles, though the Government declines to confirm how many (widely believed to be about 12). This is surprising, in view of its greater openness in relation to the number of warheads carried. Objectively, the latter is the more sensitive subject.

21. Trident D5 can carry up to 12 Mk4 re-entry vehicles (RVs). The White Paper does not say what use, if any, is made of the spare capacity. However, it is likely that in the full multi-warhead configuration at least, a “lean/rich” mix of inert and live RVs provides additional “bodies” to defeat missile defences—which only Moscow has. It is difficult to conceive of an operational requirement for decoys in a single-warhead, reduced-yield configuration, so it may be that such missiles, with a lighter payload, have an extended range, thereby meeting the White Paper’s requirement for a world-wide capability.

22. The cost of British participation in the life-extension programme is put at £250 million—£5 million per missile—which makes spending on Trident itself much the smallest element of the Government’s future plans.

THE SUBMARINES

23. The White Paper explains that the Vanguard-class SSBNs cannot be retained in service as long as the equivalent (but very different) US Ohio-class. The US Navy plans to replace the latter between 2029 and 2042. The Vanguards can only be kept for a further five years beyond their planned service lives of 25 years. From the dates quoted in the White Paper it is apparent that the “lock started ticking” when the boats were launched and not, as widely assumed, when they entered service. Even with a five-year extension Vanguard herself will be decommissioned in 2022. Cmd 6994 does not actually state that the five-year life-extension will be undertaken, but that is the implication to be drawn from the timescales set out.

24. If the submarines are to be replaced anyway one might question why additional money should be spent giving the present class a modest life-extension first. The decision to do so may be driven by the time needed to design and build replacements, and to complete the delayed Astute-class SSNs first. If the planned 22-month “drumbeat” of submarine construction is adhered to, the last of the planned seven Astutes will not be completed until around 2020.

25. The Government intends to study whether the Continuous At-Sea Deterrent (CASD) can be maintained with just three SSBNs. It would generate a modest cost-saving and also provide a further disarmament gesture. However, there must be some operational risk and a danger of undermining the whole credibility of the deterrent by repeated pruning at the margins. The Government’s view that it is important to maintain the CASD and not opt for a more “virtual” form of deterrent is entirely sensible.

26. Also left unanswered is the question of how many missile tubes the new submarines will carry. Not all the present boats’ 16 tubes are used, and the planned buy of missiles was reduced by the SDR in 1998. 12 tubes would seem to be a sensible figure, allowing for a varied and variable number of warheads per missile. Fewer than 12 might compromise future flexibility, especially if a significant number of single-warhead missiles was to be carried to address ‘limited’ nuclear or other WMD threats.

27. The cost of the new submarines seems very high (£11–14 billion for a four-boat force). The present four boats cost (at 2004–05 prices) a little under £6 billion, though in the House of Commons the Prime Minister (4 December 2006, Col 34) stated it was £14 billion (which was the cost of the entire Trident programme). These costs may reflect experience with the Astute programme and the fact that with a smaller overall submarine force individual units cost more. There is also a determination in the MoD not to underestimate costs as any later over-runs would be at the expense of the rest of the equipment programme.
28. The respective futures of the SSN and SSBN forces are closely bound-up together, sharing as they do the same Submarine Industrial Base (SIB), operating and maintenance bases and other support, training and command infrastructures. The SDR process identified an operational requirement for 14 SSNs, though the number had already been reduced to 12. Treasury intervention meant that only 10 were authorized, and this was subsequently reduced to eight in the 2003 Defence White Paper. The current Astute programme is for just seven boats, though 12 were originally planned. If only three SSBNs were to be built, that could leave the UK with just 10 nuclear-powered submarines which may not be sufficient to sustain the SIB in the long-term. There is a view within the MoD that the new SSBNs might be the last nuclear-powered submarines to be built in Britain.

29. The Exchange of Letters includes the intention to collaborate on aspects of “future submarine platforms”. The UK’s first SSN HMS Dreadnought had an American-supplied reactor and more recently some US expertise was used to get the Astute programme back on track. Further Anglo-American cooperation could help mitigate concerns about the future of the SIB.

30. There are three design options for new SSBNs: an updated Vanguard; a “stretched” Astute or a wholly-new design. The White Paper is a little vague on this On page 25 it refers to “changes to the design of the Vanguard-class,” but also says that 17 years are needed to design and build new SSBNs. An updated Vanguard would clearly not take that period of time. The MoD wants to maximize commonality with existing designs (mainly Astute). But the Astute-class has the same PWR-2 reactor as the Vanguard which was designed in the late 1970s and early 1980s. Building another class with the same propulsion system would mean having a 1980s reactor design still in service in the 2050s. This will probably dictate that a new design will be developed, possibly with all-electric drive, and why up to 17 years will be needed to bring it into service.

FASLANE

31. Hanging over the future of the deterrent is the “Scottish Question”. The present devolution arrangements are viewed as unsatisfactory by large numbers of people, north and south of the border. Most of the infrastructure supporting the deterrent is located in England, principally at Barrow, Devonport, Derby, Aldermaston and Northwood. But the submarine operating base at Faslane is in Scotland. Unsurprisingly, the Scottish Question is not discussed in the White Paper, but it was raised in the House of Commons the same day the White Paper was published (4 December 2006, Col 35). The future constitutional integrity of the United Kingdom has obvious implications for the nuclear deterrent. If the latter had to be relocated, the only viable base is Devonport, with a new RN Armament Depot probably at Falmouth. Relocation would clearly be expensive but might be self-financing as Scottish independence would end Westminster’s funding of higher levels of public expenditure north of the border.

OPPORTUNITY COST

32. The total cost of £15–20 billion is a substantial sum in absolute terms, and of a scale with other major weapons procurement programmes. Spread over the life of the programme, it represents an average of about £1 billion per annum, though with higher expenditure in some years than in others. In relation to (a) overall public expenditure and (b) the intrinsic importance of the subject, the sums entailed are relatively trivial.

33. Of rather more concern is the opportunity cost of the Trident programme. The Government says in the White Paper that renewal of the deterrent will not come at the expense of conventional forces. It has been mooted that Trident life-extension could be funded out of a special contingency reserve, but the White Paper only goes so far as to say that decisions on spending for nuclear and conventional forces will be taken in this year’s Comprehensive Spending Review. This will make the MoD nervous and the Navy in particular will worry about being reduced to the status of a nuclear-armed coastguard.

CONCLUSIONS AND RECOMMENDATIONS

34. The decisions the Government has made about the future of the UKs strategic nuclear deterrent are entirely sensible, though some difficult issues are still to be resolved. Renewal of the deterrent must not, in any way, be at the expense of conventional forces which are already substantially over-stretched and under-resourced.

35. Whilst it has set out clearly the way ahead for the deterrent, the Government has not produced a more comprehensive strategy for dealing with the dangers and risks posed by the proliferation of weapons of mass destruction. Nuclear deterrence is but one tool to be used to address this problem, one of the most acute challenges facing Britain. The country needs an all-encompassing approach which includes diplomatic tools (including but not only non-proliferation instruments), deterrent capabilities (not just nuclear) and defensive capabilities (both active and passive). But the Government’s plans for Trident are an important step in the right direction.

12 January 2007
Memorandum from Michael Codner, Dr Lee Willett and Gavin Ireland, Royal United Services Institute (RUSI)

This submission is a summary of a full assessment of the White Paper which RUSI currently is preparing, with publication planned for February 2007. This summary sets out issues which will be of direct relevance to the forthcoming public and Parliamentary debate. Other issues will endure beyond this point.

THE SIGNIFICANCE OF THE WHITE PAPER

— The White Paper is arguably the most comprehensive and open official review of Britain’s nuclear deterrence policy, posture and capability.1

— The White Paper makes no significant changes to British policy, but clarifies some important aspects of the Government’s position. The White Paper is a policy paper, and not a Green Paper setting out options: so, rightly, the White Paper recommends a policy to be debated by Parliament.

— The Cold War may be over, but the nuclear age is not. The debate is not about whether a nuclear-free world is desirable or not, but is about how Britain chooses to exist in a world in which nuclear weapons are an enduring factor.

— The critical questions in this debate arguably are not what retaining an independent strategic nuclear deterrent will cost or how long it will take to deliver: instead, they are why does Britain need such a deterrent and what value does it deliver to Britain.

— It remains difficult to have full public disclosure of all aspects of the Government’s position and thinking on an issue as sensitive as strategic nuclear deterrence. However, there remain a number of crucial areas that have not been fully addressed in the White Paper, areas which need to be debated in advance of the Parliamentary vote. The Government should expect to be asked to clarify these issues prior to the vote.

WHY NOW?

— The timing of the Government’s decision is informed by the lifespan of the existing VANGUARD-class ballistic missile submarines (SSBNs) and the timescale required to build a successor.

— The lifespan of the VANGUARD boats, limited largely by their nuclear steam raising plants (NSRP), is stated by the Government to be up to 30 years. Arguably, the 30 years consists of a standard 25-year service life, plus an option for a life extension of up to five years. What appears to be new in the White Paper is the inclusion of two years of sea trials in the life of the submarines, i.e. HMS VANGUARD’s 25 years of service life start in 1992 when she was launched, not 1994 when she entered into service.2 This is understandable, as the life should indeed be measured from when the hull and the reactor first begin operating. Thus, VANGUARD will come out of service in 2017, or 2022 with a five-year life extension, rather than 2019–2024 as originally anticipated. The critical date, however, is 2023, when HMS VICTORIOUS, the second boat in the class launched in 1993, comes out of service after an extension to 30 years of operational life: at this point, with only two submarines still available, Britain would no longer be able to maintain the Continuous At Sea Deterrent (CASD) policy. Thus, without a decision to build a new generation of submarines and with no decision to extend the service life, the clock would stop on Britain’s independent deterrent in 2018. Further clarification of the dates and timelines is required.

— Some independent analysts have, however, questioned whether the service life could not be much longer. While the VANGUARD submarines could be refitted for a much longer life, past experience has shown that defects and costs rise sharply following refit of older submarines. This could lead to the last years of the class being spent fighting unreliability and increasing costs, while struggling to maintain a credible deterrent.

— Ultimately, while the position of industry should only be a factor in when 1 and not if—Britain decides to retain a deterrent, indeed the determining factor may be the fragility of the submarine industry, which would struggle to survive a 20-year gap between design of the ASTUTE-class nuclear-powered attack submarines (SSN) and a future SSBN.

THE FUTURE CONTEXT: THREATS, THEORIES AND INFLUENCE

— The future strategic environment remains unknown and unknowable. History has proved that to be the case. Britain is an established nuclear power with global political, economic, defence and security profiles. Should Britain wish to retain such global prominence, maintaining a credible strategic nuclear deterrent in the face both of a broader range of nuclear and an uncertain future arguably remains fundamental to the support of British interests.

— Britain’s strategic nuclear deterrent is a political tool of self-defence, designed to deter highest level threats to the survivability of the nation, and also to reduce the risk of nuclear blackmail.
The rationale for maintaining the nuclear deterrent is based on the existence of nuclear arsenals in at least eight other states, the fact that nuclear technologies, know-how and desires are proliferating, the implicit assumption that more states are likely to acquire nuclear weapons in the future, the risks of rogue states and terrorist organizations acquiring nuclear and other weapon of mass destruction capabilities, and the calculation that nuclear aggression realistically can only be deterred by the possibility of nuclear retaliation.

The political futures of at least three established nuclear powers—Russia, China and Pakistan—remain uncertain, particularly from the viewpoint of their potential impact on British security interests.

In the Cold War, British deterrence policy was based on the certainty of response, that in certain circumstances Britain would respond with nuclear weapons. Today, with more numerous and more diverse potential threats, this uncertainty in threat is offset instead by strategic ambiguity and uncertainty in Britain’s response: no potential adversary could be absolutely certain that Britain would not respond, an uncertainty which increases significantly the complexity of an adversary’s decision-making.

Ambiguity arguably is a useful and calculated deterrent stance, but the Government has yet to convince some that the White Paper demonstrates a robust policy and doctrine for strategic nuclear deterrence, and its declared sub-strategic component. The White Paper did not clarify the distinction between the strategic and sub-strategic concepts. Indeed, it did not mention sub-strategic at all. It also has been argued by some analysts that Britain has a deterrent capability at present, but no firm deterrent policy as yet—perhaps, not least, because the future context and future threats are so hard to define.

While deterrence strategy needs to be grounded in reality and clearly related to national policy, deterrence theory and practice is based on conceptual arguments that are open to discussion and differences in interpretation. It is perhaps for this reason that the White Paper does not delve into discussions of the theoretical and practical application of deterrence: so doing might indicate to a potential adversary how Britain thinks deterrence might work, but might also leave the Government open to intellectual criticism of its thinking.

The debates around the White Paper would benefit from an assessment of what deterrence is, how it is achieved, what are the implications of deterrence theory and practice of the changed strategic environment, and what are the circumstances in which nuclear deterrence might be relevant.

The concept of nuclear deterrence remains powerful in the MoD and in the wider British politico-military establishment. The White Paper argues explicitly that Britain does not possess a nuclear deterrent for reasons of status. There remains a strong argument, however, that nuclear weapons today hold as much significance in creating international status and influence as they do in deterring nuclear war.

Options

Britain’s strategic nuclear deterrent is a political weapon of last resort, designed to deter high-end, nuclear threats to the survivability of the nation. The White Paper reinforces this posture, with a credible, minimum, independent strategic nuclear deterrent deployed on invulnerable submarines operating in a CASD patrol cycle giving Britain the ability to effect deterrence where and when required. For the foreseeable future, Britain will continue to retain one submarine continuously on deterrent patrol. The fundamental principle for an effective deterrent is a survivable platform and weapon system which can deliver the desired effect and the place and time of choice, holding at risk anything which a potential adversary may value. Only a submarine-based system deployed in a CASD cycle can deliver this guarantee.

None of the other options addressed in the White Paper would provide the requisite strategic capability, nor would they be more affordable.

The critical question to address is if and why Britain should look to reduce the deterrent flotilla to three boats. It should be borne in mind that the Polaris programme originally called for five submarines, although this number was reduced to four, and that four boats provide sufficient redundancy in the system for something as critical as the national nuclear deterrent, should something unforeseen occur to one of the submarines. Improvements in submarine technologies, build and maintenance may help improve submarine availability, but a reduction to three submarines may not deliver proportionate cost savings while increasing the level of risk. It should be noted, too, that a reduction in the number of SSBNs would impact upon the taskings for SSNs required to protect the deterrent, and thus may increase arguments to reduce the number of SSNs further still if affordability challenges for the Armed Forces and for the Submarine Service continue.

A particular issue should be noted with regard to options for using cruise missiles. Cruise missiles travel at slow speeds, and have been shot down in combat. Deploying the national strategic deterrent on such missiles would risk nuclear warheads falling in to the wrong hands.
Cost

— The final cost of the submarine is also subject to several key decisions, such as the number of missile tubes, the choice of new or existing nuclear propulsion plant, and the level of advanced technology introduced.

— Britain’s nuclear submarine-building industry compares favourably with those of France and the US in terms of production time, cost and technology and capability. Relative unit procurement costs for SSNs and SSBNs are compared below:

Vanguard class of 4 hulls, Triomphant class 5 hulls, Ohio 18 hulls.
Estimates given for the Ohio class replacement are from the US Navy ($3bn) and the Congressional Budget Office ($6bn)

Note that the French Barracuda class is due to begin construction in 2007 and enter service from 2016. The Virginia class is currently funded for 9 hulls from a projected 30-hull build.
— The White Paper refers to the future running costs of the nuclear deterrent as “between 5 and 6% of the defence budget”. This is in contrast to previous statements, which have detailed a running cost of between 2 and 4% since 1997. Moreover, the White Paper states that the commitment to investing in the Trident D5 (Life Extension) programme will cost Britain in the region of £250 million in total. However, the costs of buying original D5 missiles were £1.17 billion. Does this mean that £250 million is the buy-in price for the LE programme, with more due in due course for the missiles themselves? Thus, the Government will need to inform the debate with a focus on through-life costs, and clarify the expected demand on the defence budget for the future of the deterrent, as well as where the funding will be sourced.

— The critical issue with cost, however, is not necessarily the raw amount that renewing the deterrent will cost, but how much value an independent strategic deterrent delivers to Britain and what the taxpayer is prepared to pay for the benefits offered by the deterrent.

**Industrial Issues**

— Whilst the state of the industrial base must not be a rationale for retaining a nuclear deterrent, it is an important factor to consider once that decision has been taken in principle.

— A figure of 14 years is commonly cited for the design and production of the VANGUARD-class. While the decision to build the VANGUARD class was taken in 1980, work on the class had in fact been under way for some considerable time before this. While Government statements from as early as 2004 declared that work was underway on a replacement deterrent system as early as 2002, the 17 year timescale may present some challenges.

— The 17 year timescale for a replacement SSBN arguably may restrict some potential new developments. For example, it may not allow nuclear reactor shore testing to take place, effectively constraining the options for a significantly new nuclear power plant. Overall, the tight timescales may prescribe a design based around existing British designs, rather than a newer design which may be able to bring different approaches. Furthermore, major items of equipment may need to be ordered more than a decade in advance of the submarine’s entry into service.

— The purported option of building another four copies of the VANGUARD-class submarine would be infeasible and counterproductive, as would delaying a decision to build the replacement class until 2010. The submarines would still be costly to build, and the use of the existing design—even with re-work resulting from obsolescence or supply problems—would result in the atrophy of submarine design skills.

— If the submarine industry was to decline, Britain could also lose the ability to build and operate SSNs. This would be detrimental to Britain’s expeditionary policy and would lessen considerably Britain’s ability to project conventional military forces.

**Arms Control Issues and Unilateral Moves: Reductions in Each Component of the UK Deterrent Programme**

— There is no evidence to suggest that other nuclear powers or potential nuclear powers would renounce their programmes and plans should Britain unilaterally abandon its deterrent, nor that nations such as Iran or North Korea were waiting on the outcome of the British debate before deciding whether or not to press on with their own programmes.

— A firmer resolution on international co-operation in nuclear weapons programmes will complicate the already ambiguous position of the US-UK relationship. For example, the 1958 Anglo-American Mutual Defence Agreement (MDA) (the agreement which defines Anglo-American nuclear co-operation) could be complicated by attempts to close a perceived loophole in the terms of the Non-Proliferation Treaty (NPT), one which allows states such as Pakistan and North Korea to trade in designs and parts of nuclear weapons without transferring actual devices. The result of this, for Britain, may be a gradual disengagement from the US on collaborative weapon design, with the possibility that a replacement for the existing British Trident warhead would be designed by the Atomic Weapons Establishment (AWE), with minimal input from their US counterparts.

— The course of US and British arms control policy has important ramifications for the Anglo-American nuclear relationship. Clarification from the Government of the direction of British arms control policy would be useful in the current debate.

**The Decision and Broader International Relations**

*Anglo-American Relations*

— Anglo-American co-operation on military nuclear technology remains one of the most stable and significant facets of the “special relationship”.
— The most significant decision is yet to be made. According to the White Paper, “decisions on whether and how to replace [the existing] warhead are likely to be necessary in the next Parliament”. In replacing or extending the current warhead, any move to qualitatively improve or modify its capability would be even more controversial than the present proposal to replace the submarines.

— There is potential for closer co-operation with the US on matters of submarine and nuclear reactor design and, perhaps, build. This would not automatically result in significant cost reductions, as US submarine programmes have generally been more costly than their British equivalents and work to different design priorities.

— Significant questions remain regarding the cost of the US components to be built into a new British-built submarine, principally the missile launch tubes which are no longer fabricated in the US.

— Discussion on technology transfer and potential International Traffic in Arms Regulations (ITAR) issues is required smartly if problems such as those which surrounded the Joint Strike Fighter (JSF) are to be avoided. Whilst the supply of US equipment and technology is likely to proceed, the cost may rise to unacceptable levels unless firm agreement is reached early in the programme.

— The MDA was renewed in 2004 and will need to be renewed again in 2014. It is not clear what, if anything, the US receives in return for sharing its expertise, but some have argued that Britain will be required to support US foreign policy as a result of signing the agreement.

NATO

— Britain’s nuclear deterrent remains an important part of the European contribution to NATO, with its sub-strategic policy a central element of NATO’s deterrent strategy. However, NATO’s doctrine of sub-strategic deterrence remains largely under-developed since the end of the Cold War. The Government will need to clarify the precise role of sub-strategic Trident in the NATO context.

— In the White Paper, the return of use of phrase “independent centre of nuclear decision-making” raises the question of whether Britain is trying to pull its independent deterrent away from its NATO commitment.

Anglo-French Relations

— While French domestic support for its deterrent is higher than British domestic support for Trident, France’s nuclear forces are more extensive than Britain’s and entirely French-produced—are very costly to maintain, drawing on around 8–10% of the defence budget. There is growing pressure for this figure to be reduced.

— Current Anglo-French co-operation on nuclear weapons and non-proliferation is focused on the Joint Commission on Nuclear Policy and Doctrine, established in 1992 and made permanent in 1993. The Commission has achieved a substantial measure of discussion and agreement.

— Deeper Anglo-French collaboration would be constrained by a range of factors, including cost, the French emphasis on self-reliance, and a range of international agreements including the NPT, the Missile Technology Control Regime and the Anglo-American MDA.

— The White Paper reiterated the concept of Britain acting as an “independent centre of nuclear decision-making” in the context of the UK-US-France relations, which effectively discards the option of pursuing a co-ordinated Anglo-French deterrent force.

— Finally, both state’s basic rationale for possessing a nuclear deterrent—to ensure the unimpeded exercise of sovereignty in times of crisis—makes closer co-operation in build or operation highly unlikely.

Wider European/Global Relations

— Some analysts have raised the questions of whether Britain’s global reputation would have been enhanced had Britain abandoned its deterrent, and whether the decision to renew the deterrent has damaged Britain’s image.

What Next

— Arguably, all the Government has done is maintain the status quo.

— The decisions taken in the White Paper—to remain a nuclear power, to build a new class of submarine and to invest in the LE programme—arguably are reversible, although at some cost.
In the short term, while 2007 should see a commitment to the concept phase of the submarine programme and Britain signing up to the LE programme, the Summer’s Comprehensive Spending Review (CSR) may have significant implications for the affordability of the deterrent renewal programme.

The critical decision time actually comes in the middle of the next decade, when: the Government will need to re-negotiate the MDA; the decision will need to be taken on whether to build three or four submarines; the main investment in those submarines will be made; the Government will need to start considering whether to buy into any successor missile programme to the LE; the Government will need to make a decision on whether to refurbish or replace the current warhead.

Until this time, there remains a window if opportunity to discuss Britain’s role in the world, the need for strategic deterrence, and whether global multi-lateral disarmament can be more than an aspiration.


Previously, the 1998 Strategic Defence Review (SDR) had revealed what was regarded then as an unprecedented level of discussion of Britain’s nuclear posture. The current White Paper numbers over 50 pages: SDR’s analysis numbered only several (see: MoD *The Strategic Defence Review.* Presented to Parliament by the Secretary of State for Defence by Command of Her Majesty. Command 3999. London: Her Majesty’s Stationery Office, July 1998).


4 Under CASD, four submarines rotate through the patrol cycle to enable Britain to keep one boat permanently on patrol with sufficient redundancy should unexpected problems occur with one of the submarines. The White Paper argues that CASD could be maintained with only two submarines rotating through the patrol cycle (either with a third boat in re-fit, or with two more having retired from service), but that this posture could only be maintained for ‘limited periods’ (see: MoD & FCO. *The Future of the United Kingdom’s Nuclear Deterrent.* p 26, para 5–7).


7 Hoon, G. (then Secretary of State for Defence). *Hansard*, 30 June 2004, column 356W.


9 MoD and FCO. *The Future of the United Kingdom’s Nuclear Deterrent.* pp 18 (para 3–4) and 20 (box 3–1).

22 January 2007

Memorandum from Professor Steven Haines

**The Scope of the Question**

In looking at the legality of British nuclear weapons one needs first to identify the nature of the weapons we are considering and the likely uses to which they are to be put. Britain no longer has tactical nuclear weapons and is unlikely to procure them again. So the nuclear weapons we need to consider are not tactical—they are strategic in nature.

At the heart of British strategic thinking is the notion of deterrence (which has both nuclear and conventional dimensions). *British Defence Doctrine* distinguishes between deterrence and coercion. The former is about persuading an opponent (either actual or potential) not to follow a course of action that they may be considering. Coercion is about persuading an opponent to take action that they might otherwise not consider. Essentially, deterrence is by its nature principally defensive—the aim being to persuade an opponent not to take military action against you—while coercion is understandably assumed to be rather more offensive in character (though it is by no means exclusively so). Britain has long regarded its nuclear weapons as a means of deterrence and not as a means of coercion. They are maintained for defensive purposes rather than offensive ones.

So the basic assumptions concerning British nuclear weapons are that they are strategic systems used for defensive purposes. There are two legal questions we need to address. The first is to do with the legality of the possession of strategic nuclear systems. The second is to do with the legality of their use. However, the
question of “use” needs to be considered on two levels. The first of these is their use in deterrence by the threat they pose, a threat which itself needs to be broken down into inherent and specific forms. The second is the actual physical use of the weapons against strategic targets. Possession and use are linked, in the sense that the very fact of possession creates the inherent threat—and the specific threat is only meaningful because it is backed up by the possession of a system actually capable of delivering the destructive power being threatened.

THE LEGALITY OF POSSESSION

There is no treaty of general prohibition (of nuclear weapons) as there is for biological and chemical weapons. There are a number of “nuclear free zones” but the only states that are legally prohibited from possessing nuclear weapons in such areas are those that are parties to the treaties establishing them.65 During its deliberations in the Nuclear Weapons Case, the International Court of Justice (ICJ) found no evidence of a customary norm containing the essential element of opinio juris necessary for there to be an established customary prohibition.66 The only conclusion that one can possibly reach is that the possession of nuclear weapons is not forbidden under international law. Indeed, while the ICJ addressed the specific issue of possession within the main text of its Advisory Opinion, it did not bother to include a statement on possession in the formal dispositif (summary of its opinion) because possession was not something on which the Court had been asked to express an opinion.

OBLIGATIONS UNDER THE NUCLEAR NON-PROLiferATION TREATY

There is, of course, treaty law dealing with both possession and acquisition, in the form of the Nuclear Non-Proliferation Treaty (or NPT). Possession of nuclear weapons by the established nuclear powers is expressly permitted under the NPT. The established nuclear powers are defined as those that had tested a nuclear device prior to 1 January 1967. Britain meets that condition. The only caveat that one ought to acknowledge is that, as parties to the NPT, even the nuclear powers are under an obligation to move towards disarmament. Article 6 places an obligation on the parties to “… undertake to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament . . . under strict and effective control”. As a party, the UK accepts this and I shall return to this obligation once I have addressed the legality of “use”.

THE GENERAL INHERENT THREAT OF USE

It is frequently the case that opponents of nuclear weapons quote Article 2(4) of the UN Charter and in so doing imply that the threat or use of nuclear weapons would contravene it. It is my contention that this is by no means necessarily so—and is emphatically not the case in relation to Britain’s position. Article 2(4) provides that:

“All Members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any State, or in any other manner inconsistent with the purposes of the United Nations.”

In the particular sense of a general inherent deterrent threat, achieved in substance by the mere possession of a strategic nuclear capability, there is no necessary consequent threat against the territorial integrity or political independence of any state. Britain is not now threatening, nor ever has threatened, the territorial integrity or political independence of any state by the mere possession of such systems. To do so would need to be or have been an intention either to seize territory from another state or to reduce that state to a condition of subservience. Arguably, at no time during the atomic/nuclear era has Britain ever had designs of that nature on other states’ territory or political independence—it has certainly never pursued such aims by threatening the use of nuclear weapons.

As this is being written, Britain’s nuclear deterrent is deployed on patrol and is therefore actively maintaining an inherent deterrent posture. However, no single state is being directly threatened and it would be nothing short of absurd to suggest, for example, that Britain has designs on any territory as a consequence. One can only conclude that, despite the presence at sea of British strategic nuclear weapons at a reasonably short state of readiness, there is no breach of Article 2(4) of the UN Charter.

The regular deployment of the strategic nuclear deterrent force, far from threatening the degree of instability within the international system that a breach of another state’s territorial integrity or the denial of its political independence would represent, is maintained as a means of ensuring general stability. Indeed, far from applying nuclear pressure, even in the face of an opponent’s actual seizure and determination to

65 Nuclear weapons free zones have been established by the 1967 Treaty of Tlatelolco (Latin America and the Caribbean) the 1986 Treaty of Rarotonga (South Pacific), the 1995 Treaty of Bangkok (Southeast Asia) and the 1996 Treaty of Pelindaba (Africa).

establish control of British territory (the Falkland Islands) against the legitimate wishes of that territory’s inhabitants, Britain emphatically rejected the use of nuclear weapons against Argentina as a means of restoring the sovereignty of its temporarily lost territory.

A SPECIFIC THREAT OF USE

Since the end of the Cold War, Britain has made it clear that it no longer regards its previous specific threat against Russia (more correctly the erstwhile Soviet Union) as any longer as necessary as it was during the Cold War. However, since Russia and other nuclear weapon states retain nuclear weapons, Britain has not ruled out the possibility that at some point in the medium to long term future the current general condition of relative stability in “great power” relations may change for the worse. This brings us on to the central question of the legality of mutual nuclear deterrence.

The ICJ in its Advisory Opinion in the Nuclear Weapons Case did not state clearly what its view was as to the legality of mutual nuclear deterrence. Indeed, it completely dodged the issue, first by stating that it did “not intend to pronounce . . . upon the practice known as the ‘policy of deterrence’”66 and then by going on to state that:

“. . . in view of the current state of international law, and of the elements of facts at its disposal, the Court cannot conclude definitively whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self-defence, in which the very survival of the state would be at stake.”68

This statement was added to the Advisory Opinion by the President’s casting vote. Two of those judges who felt unable to support it appended dissenting opinions to the Court’s opinion. Judge Higgins, in particular, objected to the Court’s unwillingness to reach a conclusion on the matter, arguing that despite the apparent paucity of law on the subject the Court had a responsibility to use its collective judgement as to how the law should be applied in relation to the facts at its disposal and that “the concept of non liquet—for that is what we have here—is no part of the Court’s jurisprudence . . .”.69 Vice-President Schwebel went on in his own Dissenting Opinion to argue forcefully that the evidence associated with “deterrence” rendered it inconceivable that it could be regarded as contrary to customary law and that the Court should have stated as such.70

Since the Court abdicated its responsibility in this important respect, it is worthwhile examining briefly why it is that “nuclear deterrence” is a legitimate strategic option. Essentially we are here concerned with the law relating to self-defence, since that is the purpose of “nuclear deterrence”.

DETERRENCE AND THE LAW RELATING TO SELF DEFENCE

Article 51 of the UN Charter states that:

“Nothing in the present Charter shall impair the inherent right of individual or collective self defence if an armed attack occurs against a Member . . .”

Self defence has attached to it two essential conditions: necessity and proportionality. No action should be taken unless it is necessary to give effect to the right of self defence. In other words, if there is no threat of attack and no likelihood of it occurring it would be demonstrably unlawful to respond with either force or the threat of its use using self defence as a justification. It would be unlawful, therefore, for a state to threaten to use nuclear weapons against another particular state if that state was not posing a threat to it.

There is also an obligation on states either threatening the use or deploying actual force in self-defence to limit their response to what would be proportionate under the circumstances. It is not altogether unreasonable to argue that the threat of the use of nuclear weapons should not be employed to counter a mere conventional threat—for reasons of proportionality. However, if a state is threatened by nuclear weapons, it is also not unreasonable for it to counter that threat with its own nuclear threat. This is the essence of nuclear deterrence. One state possessing nuclear weapons and apparently posing a threat to another is legitimately countered by an opposing nuclear threat. There is nothing necessarily disproportionate about this. Indeed, there is an essential symmetry about it. Beyond that, the threat of nuclear retaliation made by a state may be its only realistic means of ensuring that a nuclear opponent does not use its nuclear weapons against it. Here there is the essential component of necessity. The only sure way of defending oneself from attack or the threat of attack by nuclear weapons is to possess those weapons oneself and offer a corresponding counter threat. In the case of a mutual threat—a significant feature of nuclear strategy during the Cold War resulting in the so-called condition of Mutual Assured Destruction
(or MAD)—each side is justified in threatening in anticipation of attack in order to deter that attack from materialising. Although it is entirely understandable for this mutually influencing combination of opposing nuclear threats to be regarded as an extremely unfortunate aspect of the modern strategic environment, it may be an absolute necessity if nuclear powers are to be effectively deterred from actually using their weapons against those with whom they have profound disagreement.

**Nuclear Weapons and the Law of Armed Conflict**

It is often argued that the threat of the use of a weapon must be unlawful if the actual use would lead to an essential breach of the laws of armed conflict (or international humanitarian law). This is certainly true. However, what is not true is that the actual use of nuclear weapons would necessarily breach that body of law in every case.

There is a fundamental requirement in the laws of armed conflict to distinguish between civilians and combatants, the latter being legitimate targets of attack, the former not. Clearly, the sheer destructive potential of nuclear weapons is such that distinguishing between civilians and combatants is virtually impossible (except in the case of tactical nuclear devices deployed at sea which are not the subject of this paper). However, there are two ways in which civilian casualties are permitted in the law.

The first is when a military objective is targeted and there are civilians killed as a consequence. This is permitted if the civilian casualties are of a proportionate scale to the expected military advantage. However, this is by no means the most important exception in relation to strategic nuclear weapons. Indeed, it is extremely difficult to imagine any real military advantage to be gained as a consequence of a strategic nuclear exchange. Nuclear weapons are not regarded as militarily useful in “war-fighting” terms. The second instance in which civilian casualties are permitted—the more important in this context—is in the case of reprisals.

The first point that needs to be made about reprisals is that they are profoundly controversial and the undeniable trend in international law in recent years is towards their abolition as a legitimate method of ensuring compliance with the law. One should also distinguish between “defensive armed reprisals” used to deter states from illegal resort to force and “belligerent reprisals” employed during conflict. While controversial, it is emphatically not the case that reprisals are already manifestly unlawful.

Reprisals are not, it should be stressed, about either revenge or retribution; they are not punishment. Rather, they are about the use of otherwise illegitimate means of warfare as a method of ensuring compliance with the law following the breach of that law by an opposing belligerent. Although Article 51(6) of the 1977 Additional Protocol I to the 1949 Geneva Conventions forbids the targeting of civilians in reprisal, Britain, in ratifying the protocol, stated that it reserved the right to use reprisals involving the targeting of civilians in response to breaches of Article 51(6) by an opposing belligerent “to the extent that it considers such measures necessary for the sole purpose of compelling the adverse party to cease committing violations” under that Article.71 In relation to nuclear weapons, if a state were to use them against Britain, the British government would in turn regard it as lawful to use them against that state as a form of lawful belligerent reprisal. Of course, there remains absolutely no intention on the part of Britain to launch a strategic nuclear attack on anyone but if others launch a strategic nuclear attack on Britain then they must consider the consequences of so doing, which might include the use of nuclear reprisals by the British as a means of dissuading the belligerent from further use.

**Conclusions**

Possession of nuclear weapons is not contrary to international law, although the nuclear weapon states are under an obligation to move towards disarmament. Britain is not threatening the territorial integrity or the political independence of other states through its possession of nuclear weapons or through its policy of deterrence. It is, therefore, not guilty of a breach of Article 2(4) of the UN Charter. Britain has an inherent right to exercise proportionate and necessary measures in pursuit of its own and collective self defence, in accordance with Article 51 of the UN Charter. The only possible rational response to a threat posed to Britain by another state with nuclear weapons is for Britain to possess a capability itself. The threat of use that sits at the heart of the policy of deterrence is fully in accordance with Article 51 of the UN Charter. While the use of nuclear weapons as a war-fighting weapon seriously risks the breach of the law of armed conflict relating to the principle of distinction, if another state so breaches Britain might legitimately use nuclear weapons in the context of belligerent reprisals in order to persuade its opponent to comply with the law. It follows from all of this that the British strategic nuclear deterrent capability is lawful; it is fully in accordance with international law and does not represent a breach of that law in any way. There has never been a persuasive argument deployed to establish illegality. The ICJ certainly did not declare nuclear weapons illegal.

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There is, of course, one other question that might usefully be considered. In deciding on the future of its nuclear strategic capability, what might the British Government consider it to be under an obligation to do that is different from what it is doing at present? It may be useful to close with a very brief foray into these areas in order to place the continuing legality in some strategic context.

I am as convinced as I can be that the reasons for the absence of great power war in the 60 years since the end of the Second World War include the presence of an atomic or nuclear dimension to the strategic environment. Nuclear weapons have made a major contribution to maintaining relatively stable conditions as between the “great powers”. Other factors are, of course, also clearly of some significance, not least the vast array of developments that are collectively described by the word “globalisation”. States are becoming more interdependent and this has to be a significant influence, as too must be the development of global institutions including the United Nations. Arch-Realists may dismiss the UN as an ineffective product of idealist thinking, but they are wrong entirely to dismiss its impact on the development of norms of behaviour and the need for some measure of international accountability. I am sure that as the processes of globalisation and interdependence continue and as international institutions come to play a greater role within the international system, the chances of great power conflict will further recede. But the possibility has not yet disappeared altogether and, until we can be sure that it has, I feel there will be a need for the precautionary retention of some measure of nuclear capability to balance that of others who may have less benign objectives. That is not to say that Britain’s needs are as great today as they were two decades ago when Trident D5 was chosen as a successor system to Polaris.

Whatever the outcome of the forthcoming vote and other decisions within Westminster and Whitehall on the future of the British nuclear strategic deterrent, one option that ought to be considered very seriously indeed is a scaling down of capability. The White Paper implies a reduction in capability. Britain might sensibly reduce, for example to just two submarines and a longer period of readiness, to fewer missiles and to a downgraded (if modernised) warhead arrangement. This would go some way to meeting the obligations on disarmament contained in the NPT—but it would also ensure the maintenance of a legitimate strategic deterrent for the foreseeable future, as the international system develops further and we become increasingly confident of the likely absence of great power conflict.

29 January 2007

Memorandum from the Ministry of Defence

1. The Government’s Detailed Assessment of the Deterrent Options, including Submarine-based Cruise Missiles

We published a detailed assessment of the principal deterrent options that were considered, and the process involved, in Section 5 and Annex B of the White Paper. Clearly, this represented a high level summary of a great deal of work, much of which is necessarily highly classified. As the White Paper makes clear, options based on aircraft, land-based silos or surface ships are manifestly less capable, in some cases wholly impracticable and in all cases at least as expensive as continuing with submarines. As most commentators have agreed, the only credible alternatives for retaining a nuclear deterrent are options within a submarine solution. The Defence Secretary and his team will of course be happy to answer any detailed follow-up questions when he appears before the Committee on 6 February.

As for the option of cruise missiles launched from submarines, we are clear that, in both cost and capability terms, retaining the Trident D5 missile is by far the best approach. A comparison between cruise and ballistic missiles is set out in detail in Box 5-1 of the White Paper.

An option based on submarine-launched cruise missiles would, like the option we have decided on, require the procurement of new nuclear-powered submarines to fulfill the deterrent role, as the existing conventional role submarine flotilla, and the Astute class which will replace them, are required to undertake other key defence tasks. Indeed, given that a much larger number of cruise missiles, compared to Trident D5 missiles, would be required to meet our minimum deterrence requirements, moving to a deterrent based on submarine-launched cruise missiles could well lead to a requirement for additional submarine hulls.

Because of the costs and capability disadvantages of cruise missiles set out in the White Paper, we have not undertaken a detailed analysis of what the requirement for submarine hulls would be.

It is also the case that moving to a submarine-based cruise missile solution would necessitate the procurement of new nuclear-capable cruise missiles and also the development of a new nuclear warhead suitable for use with a cruise missile, both at considerable cost and technical risk. Thus, such an option would have significant disadvantages in both cost and capability terms compared with the option we have chosen.
2. A Full Breakdown of the Estimated Costs of the Whole Deterrent Programme, as Proposed by the Government, Including Acquisition, Support, Infrastructure and Service Delivery Costs, Over the Lifetime of the New SSBNs; and Comparable Costs for the Other Options

The White Paper provided the broad granularity of information on costs which is the most the Government believes it would be prudent to make public at this early stage. As the White Paper made clear, engagement with industry during the concept and assessment phases of the project will produce more refined cost estimates by the time we come to place a contract for the detailed design of the submarines.

The initial estimate of the range of likely costs is based on extensive work which drew on historic cost comparisons as well as analysis of the risks and uncertainties inherent in the costings. Inevitably, not all elements of the underlying detail will be accurate at this stage, and although we are confident that the overall range is of the right order, we will want to bear down on the through life costs to the maximum extent possible as the project matures. It is for these reasons, and to avoid compromising commercially sensitive information, that the Government does not propose to provide a more detailed breakdown of the estimated costs of the future deterrent programme at this stage.

We have already stated that the £15–20 billion acquisition cost estimate includes some £11–14 billion for the submarines, £2–3 billion for the possible refurbishment or replacement of the warhead and £2–3 billion for infrastructure. The submarine costs include provision for system concept and assessment, platform, propulsion plant and strategic weapon system development. The warhead costs are additional to the running costs and ongoing programme of investment in new facilities and manpower at the Atomic Weapons Establishment (AWE) Aldermaston. The infrastructure costs, likewise, are additional to provision for ongoing maintenance of infrastructure, which is contained in our in-service cost estimates for the current deterrent and its replacement.

Turning to the options which were discarded in favour of a new generation of ballistic missile submarines, the White Paper made clear that the reasons for not selecting them were a mixture of cost and capability. In the case of the, significantly more expensive, silo and large aircraft options the acquisition costs were much higher than in the case of the submarine option, and represented a substantially larger share of the through life costs. The in-service support costs were also higher. Both the acquisition and in-service costs for the surface ship option were of the same order as for the submarine option.

3. Clarification of the Timing of the End of Life for Each of the Vanguard Submarines, with or Without a Service Life Extension Programme, Explanation of How these Dates were Reached and Which Elements of the Submarine are Critical

The expected out-of-service dates for the four Vanguard-class submarines, with and without any life extension programme, are as follows:

<table>
<thead>
<tr>
<th>Submarine</th>
<th>Trials/Reactor went critical</th>
<th>Out of Service Date (no life extension)</th>
<th>Out of Service Date (with life extension)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMS Vanguard</td>
<td>1992</td>
<td>2017</td>
<td>2022</td>
</tr>
<tr>
<td>HMS Victorious</td>
<td>1994</td>
<td>2019</td>
<td>2024</td>
</tr>
<tr>
<td>HMS Vigilant</td>
<td>1996</td>
<td>2021</td>
<td>2026</td>
</tr>
<tr>
<td>HMS Vengeance</td>
<td>1999</td>
<td>2024</td>
<td>2029</td>
</tr>
</tbody>
</table>

These dates are based on the date that the reactors on the four submarines first went critical, the original design life of the submarines (which was for a life of at least 25 years), and—based on our experience of operating the Vanguard-class submarines, experience with other classes of submarines, the results of discussions with our internal experts, and the views of industry—our assessment of the maximum additional in-service life that we believe it is currently prudent to assume can be achieved through a life extension programme.

Some details on those components of the Vanguard-class submarines, which we believe are critical in terms of limiting the effective service life of the submarines, are set out at paragraph 1–3 of the recent White Paper. Life extension much beyond five years is likely to require replacement of some of the systems critical to submarine operations, such as external hydraulic systems, elements of the control systems (plane and rudder), sonar systems, electrical systems (including main battery) and refurbishment or replacement of elements of the nuclear propulsion system. This would involve some hull penetrations. Replacing these systems would require extended additional maintenance periods resulting in loss of boat availability and significant cost but would not enable significantly increased life. Extension to both component safety justifications and the whole reactor plant safety justification would also be required (and could not be assured). Other systems would need careful assessment and replacement of the turbo generators, secondary propulsion gear and assemblies, deterrent missile hydraulics, hatches and mechanisms, might be required. There would also be increasing risks with the reliability of other major systems, including potentially the main engine, gearbox shafting and propulsor, all of which could require replacement.
As was made clear in the White Paper, we do not at this stage completely rule out further life extension of the Vanguard-class. The key point is that on current evidence it is highly likely to represent poor value for money. Moreover, there is also serious concern as to whether it will be technically feasible. The position will be kept under review at each key stage of the programme to design and build the replacement submarines. But given the severe uncertainties associated with life extension beyond the 30-year point, it would be grossly irresponsible not to start concept and assessment work in time to ensure we can field replacement submarines when the Vanguard-class reaches the 30-year point.

In this context, we would like to reiterate two points to the Committee. First, we believe the most relevant comparison with the Vanguard class—in terms of likely in-service life—is our own classes of submarine and not the US Ohio-class, to which some commentators have referred. The Ohio-class submarines are different boats with different original design life and a different manufacture, refit and maintenance regime, as made clear in paragraph 1–4 of the White Paper. The Resolution class submarines, for example, were maintained in-service for from 25 to 28 years and experienced serious loss of availability and significantly increased maintenance costs towards the end of their lives. We have no wish to repeat that experience.

Second, many commentators have contrasted the 17 years quoted in the White Paper to design build and commission a new class of SSBNs with the time between the decision to procure Trident in 1980 and HMS Vanguard’s first patrol in 1994. This overlooks the point made clear in the White Paper that much of the concept and assessment work for the Vanguard-class submarines, the stages on which we are about to embark for the replacement SSBNs, was carried out in secret in the decade before the decision to procure Trident was taken in 1980. Again, we do not believe that it would have been responsible or acceptable to have followed a similar course on this occasion.

4. Details of the Process and Consultations which Preceded the Presentation of a Paper to the Cabinet on the Future of the Deterrent

The then Defence Secretary described the process by which these decisions were to be taken in his evidence to the Committee on 1 November 2005. Officials have undertaken work to assess the range of security risks and challenges that we might face over the next 20 to 50 years. Based on that assessment, officials considered our future deterrence requirements and then considered how best these requirements could be met, looking at the full range of options and potential costs. Annex B of the White Paper describes this process in more detail. This work involved discussions with a number of different parties, including, on a confidential basis, with industry and with some of our allies. Those assessments, and their conclusions, were considered in detail by senior Ministers and by the full Cabinet prior to the Cabinet discussion and final publication of the White Paper on 4 December.

1 January 2007

Memorandum from Professor John Baylis

Introduction

One of the central dilemmas for the nuclear powers during the cold war period was whether policies of deterrence could be credibly maintained alongside policies designed to discourage further nuclear proliferation. The not unreasonable question non-nuclear states ask is: “If you think nuclear weapons are valuable, why shouldn’t we acquire them ourselves?” A fairly successful attempt to balance these two objectives, however, was achieved in the Non-Proliferation Treaty in 1970 when a bargain was struck between the nuclear and non-nuclear powers. Non-nuclear states who signed the agreement agreed not to develop nuclear weapons provided the nuclear powers made serious attempts to move towards full nuclear disarmament. Despite constant complaints from the non-nuclear states that the nuclear powers were not living up to their part of the bargaining, there was at least some move towards de-nuclearisation towards the end of the cold war, with the START and SORT agreements. On the whole the bargain contained in Article 6 of the Treaty held.

This dilemma for the nuclear powers continued into the post-cold war period but sharpened as a result of the renewed proliferation of nuclear weapons that occurred from 1998 onwards and the pressures that this has created for the continuation of the Non-Proliferation Treaty. It is in this context that the decision about the future of the British nuclear deterrent has to be taken. Should Britain continue with its deterrent? If so, what form should it take and what measures can be undertaken, in a world in which further nuclear proliferation is taking place, to slow down, if not to reverse, this process?
1. *Does Britain continue to need a Nuclear Deterrent force?*

There is no doubt, that the political and strategic context in which Britain operates has changed dramatically since the end of the cold war, and especially since 9/11. Few would disagree with the judgement of the 1998 Strategic Defence Review that “there is today no direct threat to the United Kingdom or Western Europe”. The critical questions relate to whether nuclear weapons still have any utility:

(i) in the context of “the war on terror”;
(ii) in an era of uncertainty and anxiety; and
(iii) as useful political or diplomatic instruments.

(i) “The War on Terror”

There is a general consensus, at least in the UK, that nuclear weapons are unlikely to have much, if any, utility in the present campaign against terrorism. Although it is extremely difficult for terrorist groups to develop nuclear weapons, there is at least a possibility that they might be able to acquire nuclear materials and develop what has been described as a “dirty bomb”. In such circumstances, it could not be ruled out that such devices might be used against targets in the United Kingdom or elsewhere in Europe or the US. The same would be true for chemical or biological devices which have proliferated to an even greater extent than nuclear weapons.

It is not likely, however, how deterrence would work against non-state terrorist groups who decided to pursue this strategy. In circumstances where it is clear that the terrorists are operating from a particular territory, then deterrence aimed at the government of that state might work but this invariably will not be the case. Equally, with terrorist groups often using “martyrdom tactics”, the rational dimension of traditional nuclear deterrence strategies might well not work anyway. It is conceivable, especially given US nuclear doctrine, that specialized and nuclear devices might be considered against the directing centres of major terrorist organizations operating deep in mountainous areas. Quite apart from issues relating to the crossing of the nuclear threshold, Britain does not operate an independent tactical nuclear weapons capability and is unlikely to see much utility in developing such a capability for such actions in the future.

(ii) Nuclear Weapons in an “era of uncertainty and anxiety”

Although British nuclear capabilities have been significantly reduced since the end of the cold war, the Strategic Defence Review in 1998, emphasized that the Trident force was necessary as an insurance against uncertain future developments. The Review argued that there was a:

“... continuing risk from the proliferation of nuclear weapons, and a certainty that a number of other countries will retain substantial nuclear arsenals.”

This meant, it was argued, that Trident was likely to remain a necessary element of British national security into the foreseeable future.

This argument was at the heart of the Government’s response to the House of Commons Defence Committee Report on “The Future of the UK’s Strategic Nuclear Deterrent: the Strategic Context” and it remains central to the arguments put forward by the Government in its December 2006 White Paper. The Labour Government clearly remains committed to the idea that nuclear weapons are a useful insurance in a period of great anxiety and uncertainty. Nuclear weapons are seen as useful in “deterrent acts of aggression, in insuring against the re-emergence of major strategic military threats, in preventing nuclear coercion, and in preserving peace and stability and stability.” In Mr Blair’s words: “The risk of giving up something that has been one of the mainstays of our security since the war, and doing so when the one certain thing about our world today is its uncertainty, is not a risk I feel we can responsibly take.”

This is clearly a difficult argument to prove or disprove but it is one that those who wish to get rid of Britain’s nuclear weapons need to confront.

The arguments against the view that nuclear weapons are needed as an insurance against an uncertain future tend to be that there are no current nuclear threats to the UK and none are likely to arise in the foreseeable future. According to this view, to spend £20 billion on a hypothetical risk which is very unlikely to arise does not make much sense. The money could be better spent elsewhere. There are also those who argue that even if nuclear threats do re-emerge, nuclear weapons do not provide an effective means of providing for national security. Indeed, the very presence of British nuclear weapons, it is sometimes argued, encourages others to develop their own nuclear forces, which presents extra dangers which undermine, rather than strengthen UK security interests. According to this view maintaining a deterrent posture directly undermines the pursuit of non-proliferation objectives. There are also, of course, those who hold very strong ethical objections to nuclear weapons. The Archbishop of Wales recently argued that the £20 billion that replacing the deterrent would cost would be better spent on trying to combat global child disease.

Both sets of arguments for and against are essentially a matter of belief or judgement. Much depends on how the changes taking place in international relations are viewed. Since the end of the cold war we have moved from a bipolar to an essentially unipolar structure of world politics. Rather like unipolar systems in the past, the United States, as the predominant power, sees itself (and those who support it) challenged by
those who reject its power, influence and values. At the same time, its predominance is likely to be further
challenged, by other emerging and aspiring great powers, many of whom possess, or see value in acquiring,
weapons of mass destruction. As such, unipolarity seems destined to give way, over time, to a more
multipolar international system. If this happens, as in the past, the system is likely to be unstable as
competing, and often changing, coalitions pursue their global ambitions.

The question which those responsible for planning Britain’s national security have to face, therefore, is
whether, in such uncertain circumstances (in which nuclear proliferation is likely to continue), maintaining
a nuclear deterrent is the best course of action. In such circumstances, would Britain wish to be without such
powerful instruments of national security? A case can certainly be made that that prudence suggests that
because nuclear threats might well re-emerge in the future, and nuclear coercion cannot be ruled out, some
form of nuclear capability may well have some continuing utility. That appears to be the view of the growing
number of nuclear states in the world and it seems unlikely that British renunciation of nuclear weapons at
this time would have very much impact on their security decisions. This is clearly a matter of judgement,
but judgement is all we have.

If the “uncertainty” argument remains powerful this does not, however, mean that Britain should not
consider the future of its deterrent force in the context of the contemporary dangers of nuclear proliferation
or take account of ethical considerations.

THE POLITICAL UTILITY OF NUCLEAR WEAPONS

One of the arguments against the nuclear deterrent force is that Britain continues to believe, misguidedy,
that such weapons confer status and are useful diplomatic instruments of policy. It is noteworthy that in its
recent response to the House of Commons Defence Committee Report mentioned earlier, the government
went out of its way to suggest that this view did not weigh very heavily in its judgement about the need for
nuclear weapons. It was argued that Britain maintained nuclear weapons, “not because of the status, they
provided but for the security they gave to the UK.” The government was not saying here that “status” or
“political viability” were irrelevant but rather that such considerations were of significantly lesser
importance in its calculations than their military, deterrent value.

This seems a reasonable position to take. It may not be fashionable to say so but whether we like it or
not, nuclear weapons are perceived by many as powerful military instruments that confer “status” on those
who possess them. Equally, although it is extremely difficult to quantify or indeed prove that nuclear
weapons can, in certain circumstances, have political value and help to reinforce foreign policy, it seems
likely that they do. The possession of nuclear weapons by other states, would seem to give them a particular
status or influence in certain international circumstances. At least that is a popular perception. It remains
the case, however, that these are very much secondary arguments and on their own they would not be
convincing as an argument to retain a nuclear deterrent force.

2. What form should a nuclear deterrent force take and when should decisions be taken?

If it is accepted that nuclear weapons might be of value because of the dangers and uncertainties of the
world in which we live, and that prudence suggests that Britain should retain some form of nuclear
capability, the key question is what kind of deterrent force that should be.

For much of the cold war period the consensus amongst strategists was that Britain needed an
invulnerable, therefore sea-based, system utilizing US missiles to deliver nuclear weapons systems. Surviving
pre-emptive action remains a critical part of contemporary deterrence and consequently there do not appear
to be strong arguments to diverge from this formula.

Given that decisions about warhead design appear to have been taken already, the main issues for the
present Parliament relate to the Trident missiles and the Vanguard submarines. Trident came into service
in 1994 with a planned life of 25 years. Similarly the Vanguard submarines will come to the end of their
operational life in the 2020’s. The US has already decided to extend the life of the Trident DS missile into
the 2040’s. It would seem to make sense for a variety of political and military reasons for Britain to join this
programme. Going it alone is likely to be too expensive and the advantages of collaborating with the US
rather than France remains overwhelming (despite the growing anti-Americanism associated with the wars
in Iraq and Afghanistan).

There is also an opportunity for the government to continue to operate the submarines beyond their
original operational life span. In their reply to the House of Commons Report the government argued that:

“We now believe that, if required, this (extending the life of the submarines) would be possible, albeit
with gradually increasing cost and some risk of reduced availability, perhaps out to the mid–2020s.”

This is also the view expressed in the December 2006 White Paper.

Again this seems a reasonable decision to take at the present time.

There remains a continuing question, however, about a replacement for the Vanguard submarines and
when a decision is needed. The House of Commons Defence Committee indicated that this decision could
be left until 2010 (given the 14 year lead time involved). The Government, however, indicated in its reply
that “it would be imprudent to assume that any successor to the Vanguard-class submarine could be designed, procured and deployed within 14 years”. The December 2006 White Paper reinforced this view, arguing that this decision needed to be taken during 2007.

If it is believed that a British deterrent force is still needed for reasons of future uncertainty, then the submarine force will need to be replaced. In terms of cost effectiveness the issue is whether to extend the life of the present force and then within a few years develop a new force or to take the decision to procure the new submarine force sooner. In terms of cost effectiveness the latter argument would seem to be more sensible.

3. The Continuous-at-Sea Deterrent Cycle

In its analysis of the future of the nuclear deterrent the House of Commons Defence Committee expressed the view that the force might not be needed to undertake continuous patrols at sea.

“In the light of the reduced threat we currently face, an alternative possibility would be to retain a deterrent, but not continuously at sea.”

This was not an argument, however that government officials found convincing. In response, they argued that this had been considered in the Strategic Defence Review and rejected on the grounds that “ending continuous deterrent patrols would create new risks of crisis escalation if it proved necessary to sail a Trident submarine in a period of rising tension or crisis”. This was particularly risky, it was suggested, because of Britain’s “single nuclear system” and because government might be forced “into earlier and hastier decision making if strategic circumstances were to deteriorate”.

Arguments relating to crisis stability are not unimportant and need to be considered carefully. Equally, however, there are other arguments which relate to British security which also have to be part of the calculation. Given that we now live in a very different strategic context to the cold war, there are issues relating to arms control, nuclear proliferation and national security which also require careful consideration.

ARMS CONTROL AND THE PROLIFERATION ISSUE

Currently multilateral arms control in general, and the Non-Proliferation Treaty in particular, are in crisis. In part, this is the result of US scepticism of the utility of arms control arrangements and a focus in recent years on the primacy of counter-proliferation policies rather than broader support for non-proliferation arrangements through diplomatic mean. At the same time, there are growing dangers associated with the emergence of North Korea and possibly Iran as new nuclear powers. Should Iran acquire nuclear weapons there are clearly dangers of further nuclear proliferation in the Middle East, with discussions already underway about nuclear power in Egypt, Saudi Arabia and Turkey. In this strategic context, the UK would seem to have an important security interest in re-establishing a higher priority for arms control and helping to shore up the ailing Non-Proliferation Treaty. Even though it has scaled down its deterrent force in important ways in recent years, the decision to replace or extend the life of the Trident force will inevitably lead to accusations that the UK is not living up to its commitment under Article 6 of the Non-Proliferation Treaty.

Consequently, given this important national security interest in helping to reinvigorate international non-proliferation norms, a case can be made that important gestures, such as giving up continuous nuclear patrolling, as well as cutting the number of warheads to 160 and reducing the number of submarines to three, might help to re-enforce British diplomacy in this area. This would probably not prevent further proliferation but it might help to slow it down and it would help to reinforce an important aspect of British diplomacy. At present Britain’s position on this issue is currently relatively weak.

In the cold war, crisis stability was an important consideration given the stand-off between the nuclear powers. That situation no longer exists, giving Britain more room for manoeuvre. Giving up the “continuous-at-sea deterrent cycle” would need to be kept under careful review and could be reversed relatively easily over a period if the strategic context changed. Such changes, however, are unlikely to take place overnight giving Britain time to adjust.

CONCLUSION

While the argument for continuing the British nuclear deterrent appears more marginal now than it did during the cold war, there would appear to be a case, given the dangerous, uncertain and changing world in which we live, for replacing the Vanguard-class submarines and joining the American programme designed to extend the life of the Trident DS missile. WE simply do not know what the world will be like in 2050. At the same time, however, these decisions need to be considered in the broader context of their impact on the British national security interest of helping to prevent nuclear proliferation. In this context a case can be made for giving serious consideration to the need for the ending of continuous patrolling by British nuclear submarines, as well as scaling down the number of warheads and submarines which the government is considering. Both parts of this dual approach to the future of the nuclear deterrent are likely to receive popular support because of the contemporary anxieties which exist. Given these anxieties, it would be
surprising in the next few years if there was a reversal of the traditional majority support for the nuclear deterrent force. Equally, there is likely to be considerable support for a policy designed, if not to regain the moral high ground, then at least to reinforce an important part of the traditional multilateral arms control agenda. Trying to achieve a balance between deterrence and non-proliferation, difficult as it is, and unsatisfactory as it is, would appear to be in Britain’s national security interests.

8 December 2006

Memorandum from the British Pugwash Group

EXECUTIVE SUMMARY

A. The White Paper suggests that the UK needs a nuclear deterrent as an insurance. No one has been able to suggest a possible foe against whom such a deterrent would be necessary. Nuclear weapons could not be used against terrorists or a state housing terrorists.

B. The White Paper does not discuss the financial, political, security or opportunity costs of renewing or replacing the Trident system.

C. The White Paper asserts that the UK’s policy with regard to nuclear weapons is legal. This claim is deeply flawed.

D. The claim that the Trident system is independent is not correct. It is heavily dependent on the USA.

E. The White Paper does not discuss other methods of improving our security, the effect of globalisation on the increasing interdependence between states, or the anomaly of two European states maintaining nuclear weapons when others do not.

We are responding to the White Paper as the British arm of the Pugwash Conferences on Science and World Affairs which, as you may know, played an active role in helping to formulate and work internationally on verification technology related to the Nuclear Non-Proliferation Treaty and other Treaties of the Cold War era (in part recognition of which Pugwash was awarded the 1995 Nobel Peace Prize). Our response is thus informed by experience of the bases of treaty creation and observance.

(A) The Government’s White Paper puts a case for maintaining our nuclear weapons on the assumption that deterrence is necessary to maintain the country’s security. (2–2; 3–2)

1. There is no evidence that the Polaris or Trident systems have made any difference to our security in the past. (Executive Summary; 3–2).

2. The Government’s case is that we need an insurance against a threatened nuclear attack on this country. To our knowledge, no politician or expert commentator has yet been able to suggest a hypothetical scenario in which a British Prime Minister would order use of such a weapon.

(a) The source of any such threat is a matter for speculation.

(b) No European country, other than France, has seen the need to develop its own “independent” nuclear weapons.

(c) Particular emphasis is laid on the possibility of an attack from a terrorist group assisted or harboured by another state (Box 3–1). The White Paper argues that “Any state that we can hold responsible for assisting a nuclear attack on our vital interests can expect that this would lead to a proportionate response.” (3–11). But any nuclear attack on such a state would hardly be a proportional response. It would inevitably kill a large number of civilians, and it is absurd to suppose that any British Prime Minister would consider blasting a city because it was placed in a country that harboured terrorists.

(B) The White Paper considers only the supposed benefits of our retaining nuclear weapons. But such a decision must involve balancing benefits against costs. The latter include

1. FINANCIAL COSTS

(a) The White Paper plays down the financial costs of retaining nuclear weapons by giving only an (admittedly at this stage inevitably) imprecise guess at the figure of £15–20 billion for procurement. This, however, does not include the annual running costs likely to be at least £1–2 billion over circa 30 years.

(b) The Government asserts that this will not be at “the expense of the conventional capabilities our armed services need” (Blair, Box 3–1:4), though such a claim rings hollow when one considers how the several Services are always in competition for funds and the reported shortages of equipment and accommodation suffered by our troops at the moment.
It is scarcely necessary to list the many other contexts in which additional resources are needed, from the NHS to the Royal Mail.

There is a possibility that Scotland will achieve its independence within the next 50 years. This might lead to closing the existing Trident bases and facilities and moving them elsewhere. This would involve very heavy costs.

2. Political Costs
   
   (a) If we retain nuclear weapons we shall continue to be seen as the subordinate ally of the USA by many countries.
   
   (b) The slight reduction in the number of warheads proposed by HM Government, rather than setting an example for others as a move towards a peaceful, fairer and safer world, as the Prime Minister claims, emphasizes that we consider it necessary to retain nuclear weapons. In any case, any reduction in number of warheads is likely to be offset by the greater speed and accuracy of the replacement Trident system.
   
   (c) Retention also would be against the wishes of the majority of Scottish citizens, who feel strongly both about the UK’s possession of nuclear weapons and about their presence in Scotland: it will strengthen their desire for Scottish independence.

3. Security Costs
   
   Our association with the USA would decrease our security by increasing our liability to terrorist attacks.

4. Opportunity Costs
   
   If the UK were to abandon its nuclear weapons, we should be the first of the original nuclear states to do so. We should be signalling to the world that we no longer considered that such weapons justified their costs. We should be confirming the conclusions of those states that have started to acquire or considered acquiring nuclear weapons and decided to abandon the enterprise (Brazil, South Africa, Yugoslavia, Libya, Canada, Sweden, Italy, Switzerland, and perhaps others) and the great majority of states that have not seriously considered the matter. As the first of the original nuclear states to abandon nuclear weapons, there is a wonderful window of opportunity for UK to lead the world towards a more peaceful world. Several serving and ex-diplomats have commented off the record that the UK’s abandoning nuclear weapons would be likely to have a dramatic effect.

(C) The White Paper claims repetitively that the UK’s position with respect to nuclear weapons is legal. (Blair; Executive Summary; 2–10; Box 3–1 para 7)

   1. The major reason given is that the UK has made some progress in reducing its nuclear armoury (Blair; 2–9 to 2–11). This is a non sequitur.
   
   2. The White Paper gives the fact that the NPT recognises the five original nuclear states as though that were a justification for our retention of nuclear weapons, whereas it was merely a recognition of the status quo (2–9).
   
   3. The White Paper quotes the 1996 judgement of the International Court of Justice selectively (2–11), and mentions only in the attached Fact Sheet 3 its unanimous decision that “the threat or use of nuclear weapons would generally be contrary to the rules of international law applicable in armed conflict, and in particular the principles and rules of humanitarian law”; though it added the reservation that “in view of the current state of international law, and of the elements of fact at its disposal, the Court cannot conclude definitively whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self-defence, in which the very survival of a State would be at stake”.
   
   4. The White Paper’s claim that it would only use nuclear weapons in extreme circumstances of self-defence is hardly in keeping with its refusal to forgo first use (3–4).
   
   5. The White Paper also failed to mention the unequivocal undertaking given by the five original nuclear states in the 2000 Review Conference “to accomplish the total elimination of their arsenal leading to nuclear disarmament.” Recognition as one of the five nuclear states gives us specific responsibilities under Article VI to negotiate in good faith towards a nuclear weapon free world. Renewing Trident, even with the fudge of a possible reduction in warhead numbers, is hardly consistent with this responsibility.
   
   6. The White Paper also claims that we have done all we can to encourage other states to abide by the Nuclear Non-Proliferation Treaty (2–6). This cannot be the case so long as we signal our belief in dependence on nuclear weapons by retaining our own. Nor does our refusal to give assurance that we will not be the first to use a nuclear weapon discourage other states from acquiring nuclear weapons.
   
   7. The White Paper points out that the NPT sets no time table for nuclear disarmament as though that were an excuse for their indefinite retention (2–10).
(D) The Trident system and its proposed replacement is referred to as an “independent” deterrent. (eg Blair; 3–4; Box 3–1)

In the long term it uses US components. In the medium term the system is dependent on the USA for missiles and missile maintenance and on the largely US owned Devonport dockyard for submarine maintenance. In the short term missile accuracy depends on the US GPS system (until the European system becomes fully operational) and on information on upper winds that at present comes from the USA. Anticipated warhead refurbishment or replacement is also likely to involve the USA.

(E) A number of highly relevant and important wider issues are not considered in the White Paper

1. The White Paper neglects other possible ways of improving our security. It is undeniable that, in addition to our irredeemable colonial past, our policies in Iraq and Afghanistan, and our close identification with US foreign policies, are potent causes of our current insecurity. The two latter are reversible.

2. The White Paper does not take account of the inexorable trend, exemplified particularly in the climate change problem and in patterns of commercial activity, towards global inter-dependence. To survive and prosper in this situation it will surely be in the interest of a middle-ranking, trade-dependent power, such as the UK, to promote the acceptance of effective international treaties and mechanisms of collaboration, particularly the UN (for all its present shortcomings and need for reform). Whatever value the concept of nuclear deterrence may have held in the Cold War, it is clear that to-day nuclear weapons are only an obstacle to peace and security. We believe that the questionable benefits of Trident continuation, suggested in the White Paper, could be far surpassed (in the period 2020–50, when any Trident replacement would be operative) by a UK diplomatic initiative, starting with true compliance with Clause VI of the NPT, for strengthening the effectiveness and credibility of the UN and similar bodies.

3. Related to this, the White Paper does not make any contribution to solving the anomaly of an increasingly integrated Europe that contains two nominally independent, and essentially uncollaborating, nuclear forces, in a continent in which no other country owns nuclear weapons. At the very least there should be public debate on whether and why this anomaly can be sustainable.

4. If the Government moves forward with Trident replacement, Parliament should ensure that the UK significantly increases its non-proliferation activities in order to ensure that this will be the last time the UK needs to upgrade a nuclear weapons system.

(F) In conclusion

The renewal of our nuclear weapons will be a step towards a world ruled by mutual threat and fear. It will signal to those countries that might be considering “going nuclear” that we consider them to be essential to the security of the state, and hence encourage further proliferation. The Trident renewal decision presents us with a real window of opportunity to reverse these increasingly worrying trends. Not renewing Trident would be a step towards a world ruled by law and mutual understanding. The Trident renewal decision presents us with a real window of opportunity to reverse these increasingly worrying trends. Not renewing Trident would be a step towards a world ruled by law and mutual understanding. We all desire the latter, but it will not be achieved unless some country takes the lead. The UK has a unique opportunity to earn the respect of the world by being the first of the original nuclear weapon states to discard its nuclear arsenal. Following this with a programme of positive diplomacy could put the UK in the forefront of international progress in accomplishing the total elimination of nuclear arsenals world-wide, so implementing our responsibilities under the NPT. In the words of the Russell-Einstein manifesto, the founding document of Pugwash, we encourage all decision makers to “remember your humanity and forget the rest.”

10 January 2007

Memorandum from Abolition 2000 UK

BACKGROUND

Abolition 2000 UK is the UK arm of Abolition 2000, an international network of about 1,700 organisations in over 90 countries committed to work for the worldwide abolition of nuclear weapons. Abolition 2000 was set up after the Nuclear Non-Proliferation Treaty (NPT) Review Conference in 1995, which made that treaty permanent. We welcomed the famous 13-step programme for nuclear disarmament contained in paragraph 15 of the gloss on NPT article VI in the final report of the 2000 review conference. We lobby government agencies both national and international, co-ordinate cooperative actions, and publish papers on the problems of nuclear weaponry. We are the main UK distributor of “Security and Survival—The Case for a Nuclear Weapons Convention”, containing the text of the model nuclear weapons convention (designed along the lines of the chemical and biological weapons conventions) as well as supporting arguments and comments on the problems to be overcome to secure such a convention. Copies can be provided for members of the Defence Select Committee if desired.
1. *The lifetime of the present V-class submarines*

The US plans to retain and refurbish as necessary its present Ohio-class nuclear missile carrying submarines for a prolonged period. Yet on page 10 of the white paper we have the claim or admission that the UK V-class submarines are not as robust as the US Ohio type. The committee may wish to examine the truth and details for this claim. It would seem to imply, relative to the US situation, either deficiencies in UK submarine-building capability or earlier and careless governmental cost-cutting or both. Apparently all previous UK-built submarines were designed to last no more than 25 years and there are serious risks as well as costs to a life extension programme. The committee may wish to examine the evidence for this and its implications. Abolition 2000 UK does not claim expertise in naval technology although other submissions to the committee may be from those with such expertise. Yet we urge the committee to consider the likelihood that the political cost of a new submarine programme will outweigh the financial costs of merely maintaining the current fleet. The white paper’s reference to “difficulties in the Astute programme” is troubling. We suspect that design of nuclear missile submarines to modern standards of safety and security will present even greater challenges. The need to fill the “design gap” and to provide jobs for the design teams will surely be better met by the design of other naval vessels of a more conventional and hence usable kind.

2. *Plans for the Trident missiles*

A change in missile design or capability would be a significant increase in the perceived threat represented by the UK nuclear weapons (NW). But the missiles are US designed and built, and the UK just has notional title to those in its part of the armoury. Assurances have apparently been received (see page 11 of the white paper) that the present missiles will remain available until 2042 with some modest life extension planned. Abolition 2000 UK welcomes the presumption that there have been and will be no changes in payload, in range or in missile accuracy over this time period—representing a half century stasis in missile technology. But we would like to be made sure of this, as perhaps would the committee.

3. *The status of the UK as a Nuclear Weapons State (NWS)*

3A. On page 13 the white paper refers to the 2000 NPT Review Conference and mentions UK support for the “13 steps” towards nuclear disarmament agreed at the NPT Review Conference in 2000. Abolition 2000 UK welcomes this statement but questions its consistency with the proposals contained elsewhere in the white paper. And we disagree with some of the white paper’s interpretations of the NPT and other international legal commitments. For example, on page 14 (International Obligations) NPT “recognition” of UKs status as a nuclear weapons state (NWS) is described. Although this avoids the use of the word “legal” concerning the five 1968 NWS and previously employed casually by Defence Minister Geoff Hoon and others in parliament; there is in fact no implication in the Treaty of either a recognised or a legal status for the weapons then and now in the hands of the five. Words like “recognition” or “recognise” are nowhere used in the treaty; NWS are simply defined (in article IX) “for the purposes of this treaty” as those who tested nuclear weapons components transfer. US transfer of warhead design information is arguably a violation of article I; transfer of manufactured warhead components is almost certainly such a violation.

3B. We also note that the white paper claims compliance with NPT articles I and VI. But with the later reference to the 1958 mutual defence agreement, and in view of the UK’s apparently having obtained warhead neutron generators directly from the US, it is evident that we are close to violation of the NPT article I on nuclear weapons components transfer. US transfer of warhead design information is arguably a violation of article I; transfer of manufactured warhead components is almost certainly such a violation.

3C. We also note and regret the defensive mention of the fanciful general disarmament clause inserted after the article VI comma as well as the remarks in this part of the white paper about the absence of a definite nuclear disarmament timetable. Inclusion of any such timetable would in any case have been inappropriate in the original treaty. But here surely reference could be made to the 1996 International Court of Justice (ICJ) opinion which indicated that immediate negotiations were indeed called for. The UK is not currently involved in any such negotiations.

3D. The comments here on the 1996 ICJ advisory opinion are in our opinion weak or misleading; it cannot be truthfully said that the advisory opinion rejected the argument that NW use would necessarily be unlawful. The only circumstance in which the court felt that it was unable to determine whether the use or threat of use was lawful or unlawful was when the actual survival of the state was threatened. That threshold for possible (but still not certain) lawfulness is much higher than any suggested within the white paper (cf paragraph 5 below).

4. *The UK NW policy and NATO*

4A. On page 17 of the white paper we have mention of NATO and Warsaw pact in an historical context but none of current NATO policy nor of the relationship of the UK Trident programme to that policy. The white paper contains nothing here, or even under “international obligations”, about any treaty and practice obligations that the UK has with respect to its nuclear arsenal within NATO. The only other comments concern defence of NATO allies (fact sheet 3 and page 19), but neither is presented in the context of NATO
NW policy. The committee might wish to determine the relationship between UK NW and NATO, and whether the declared NATO policy of potential first use (not quite the same as saying neither first use nor first use) is consistent with UK policy and UK responsibilities in international law.

4B. It could be argued that the two strongest reasons for maintaining at least a provisional NW capability—if not new submarines—would be (a) the need to discuss this within NATO (because the substructural role of Trident is currently seen as part of NATO nuclear policy) and (b) the need for UK cross-party agreement on such a key issue. Neither is clearly addressed in the white paper. Yet the UK’s acceptance of the 2000 NPT Review Conference 13 steps under article VI implies this country’s preparedness eventually to move towards nuclear disarmament. That means that a future decision will be made to abandon UK weapons. To lay the ground for such a decision, however far it may lie in the future, the government will need to discuss how broad agreement could be achieved, both at a national level, with the opposition parties, and an international level, with our NATO allies. Decisions on the Trident programme in the immediate future could affect the possibility of achieving such agreement or even meaningful discussion in the slightly longer future. The committee might thus look at the proposed plans in the light of our international treaty commitments, including those within NATO, and the historic patterns of those UK defence policies that have been the subject of general and especially cross-party agreement.

5. The purpose of the UK Nuclear Weapons

We welcome the statement that the declared focus of UK nuclear policy is on preventing nuclear attack and that UK nuclear weapons are not designed for military use during a local or narrowly regional conflict. The committee might wish to try to make this more firm. We note that this contradicts some of the remarks by then Defence Minister Geoff Hoon prior to and during the 2003 Gulf war concerning the possible threat of a nuclear response to CBW use against troops in the field outside the UK. The white paper text also seems to limit NW to deterrence of (serious or only nuclear?) “acts of aggression against vital interests”, wording which is close to but not identical with that in the IJC “survival of the state” case. But then on p 18 it is said that “we will not rule in or out first use”. This could be read as a retreat from the traditional (“cold war”) first use policy which we understand remains the NATO position—that potential first use is an intrinsic part of NATO nuclear strategy—or not. The committee might wish to examine and clarify this. The idea that the US or France might not support us if we were attacked and not nuclear-armed is courteously placed as a belief that an “enemy” might have, rather than one that we might have ourselves. But the logic there is close to circular. The discussion of the role of nuclear weapons in situations involving “weak and failing states, terrorists etc.” is in our opinion one of the weaker areas of the document. We believe that a closer examination of the usefulness or otherwise of nuclear weapons in any situation that did not involve a confrontation with a nuclear-armed power is needed and that the committee might usefully look at this.

6. UK Nuclear Weapons and the NPT

On page 20 a further attempt is made to refute the argument that the UK is guilty of hypocrisy by planning to retain its own weapons while denying such weapons to others. This attempt again involves referring to the UK as “recognised” as a NWS in the NPT. It always needs emphasising, and the committee might look into the questions of legal language involved, that the distinction between NWS and non-nuclear weapons states (NNWS) in the NPT is simply to be a practical one based upon the state of play in 1968. Had the treaty been signed into law more recently the NWS list would have included at least India and Pakistan if not Israel and the DPRK. The treaty obligations on NWS and NNWS are essentially the same. In our view the treaty does not give any special status to the then and now signatory five NWS; it calls upon them to disarm while calling upon all others not to become nuclear-armed.

7. The number of new vessels needed

On page 26 it is suggested that only three new submarines may be needed. The committee might wish to examine the probable and indeed likely problems of cost overruns and also the overlap between the stages of proposed Trident decommissioning and of new submarine launches. The committee might also examine the possibility that when all costs are included and in view of future geopolitical uncertainties that a major programme of re-hullling and refitting the current submarines over time might be preferred. Were this to be done one submarine at a time the UK would continue to have three such vessels available to it, a situation which the country has faced in the past and apparently will face in the future if the proposed new fleet were to contain only three boats.

8. MoD requirements, the UK ship-building industry and the choice of system

8A. We feel that the relationship described on page 28 between the MoD and industry is an uneasy one. It proclaims an intention to build new boats in the UK, but only if UK industry can do it to specification, to cost and on time. We think that the committee might wish to look again at these problems in the light of the white paper and national policy. Plans for major refitting of the current fleet could remove some of the problems involved. A decision not to retire the current fleet until all the potential problems are clarified
would be another part of such a policy. And a delay in any such planning, while this country looked again at the likelihood of major developments in international discussions on nuclear disarmament, would be a third reason not to go ahead in such an uncertain state of mind.

8B. Re “afloat storage”. On a smaller point we note on p 29 the uncomfortable description of “afloat storage” which is clearly unsatisfactory on environmental, health and safety grounds. Are the decommissioned V-class submarines to stay rusting in Devonport for ever? The committee might wish to look into the possibility of more complete if more expensive full decommissioning of all the submarines, initially those that are no longer needed and eventually, and in another context, of those currently seen as “needed”.

8C. On page 36 the surface ship option is placed in a surprisingly prominent position. And the suggestion that only three such vessels would be needed indicates that it could be a cheaper option (page 39). Yet such vessels would presumably be more easily tracked than submarines. The committee may wish to try to determine whether this suggestion is linked to a possible increase in ocean transparency under surveillance by sophisticated satellites. It is not clear to us how invisible the submerged V-class submarines are to a technically sophisticated potential enemy or even to some of our friends. But Abolition 2000 UK suspects that the US navy always knows where the UK nuclear weapons submarine patrol is. The committee might wish to obtain expert opinion concerning current technical ability to track submerged vessels.

9. Relationship with the US, current missiles and with warhead modification

9A. On page 31 we note that the white paper describes and defends UK activities under the 1958 mutual defence agreement with the US. The committee might wish to examine the possibility that the 1958 agreement, which preceded the NPT, represents at least in part a possible violation of NPT commitments under article I of that treaty. Our participation in a successor to D5 missile is assured with a promised exchange of open letters with the US president. The committee might wish to examine the details that we would like to see contained in such letters and obtaining from the government a firm commitment to open publication of the details if and when the time comes.

9B. We are apparently assured of D5 missile successor compatibility with the new submarines (although the committee might wish to examine this in more detail). But plans for our warheads are less clear. If indeed no new warheads are to be designed and manufactured we need a clearer explanation from the MoD of the current increases in staff and scientific capability such as the Orion laser at Aldermaston. Abolition 2000 UK is also concerned about the UK’s commitment to both the letter and the spirit of the Comprehensive Test Ban treaty (CTBT). Subcritical testing of aspects and components of redesigned warheads in US facilities is not consistent with the spirit and may come close to violation of the letter of the CTBT. The committee might ask the government to reiterate its support for the CTBT, to firmly ask the US to ratify the treaty and to engage actively within the UN to secure the other ratifications that would bring this treaty into force.

10. The seven nation initiative and response to opposing arguments

10A. Abolition 2000 UK welcomes the mention on page 33 of the Norwegian-led seven-country initiative on nuclear weapons and disarmament. We and perhaps the committee will be pleased that as the UK is the only NWS among the 7 nations involved in this initiative the government should be congratulated on setting an example to other NWS, both the original five and those outside the NPT. This is a possible source of progress that could vitiate any need for new submarines, for other ships, or even for any major refitting of the present fleet.

10B. Many of the arguments against Trident renewal are listed and discussed in the white paper. This is a positive signal and we congratulate HM Government on their attention to our and others’ views. We only wish that the white paper had been a green paper and that a final governmental decision was therefore still open. We urge the committee to ask the government to change the colour of the document before us.

14 January 2007

Memorandum from Paul Rogers

INTRODUCTION

1. On the issue of Trident replacement, the Defence Committee “... looks forward to a robust and thorough Parliamentary and public debate over the coming months.” Its new enquiry “... will consider the arguments put forward by the Government for the retention and renewal of the UK’s current Trident system and will analyse the White Paper’s assessment of the role of nuclear deterrence in the 21st Century.”
2. This paper seeks to examine a key aspect of the Trident replacement decision that is scarcely figuring in the debate on the use or threatened use of UK nuclear weapons in circumstances that fall short of a major nuclear exchange. In this respect, the maintenance of a “substrategic” or tactical variant of the new system, and the inclusion of a first use option are particularly relevant.

CONTEXT

3. The proposal to replace Britain’s existing Trident nuclear force with a new system means that Britain is likely to remain a nuclear power until around 2050. As the Government acknowledges, the global security context over that period is likely to be complex, with a variety of potential security challenges. Even so, the thrust of the Government’s case for replacing Trident is that Britain needs a nuclear force that is a deterrent to fundamental threats and an insurance against such threats.

4. Indeed, the two words “deterrent” and “insurance” are oft repeated in the White Paper and in speeches and statements, so much so that the very strong impression is given that this is the sole function of UK nuclear forces. Very little is said about the role of UK nuclear forces in conflicts that fall short of a major nuclear war.

5. Although Britain continues to deploy tactical nuclear weapons, currently in the form of what is termed a “substrategic” variant of the Trident system, there is only one brief mention of the planned inclusion of such a variant in the Trident replacement in the recent White Paper, The Future of the United Kingdom’s Nuclear Deterrent (Command 6994).

As with our current deterrent, the ability to vary the numbers of missiles and warheads which might be employed, coupled with the continued availability of a lower yield from our warhead, can make our nuclear forces a more credible deterrent against smaller nuclear threats. (page 23—emphasis added)

6. The White Paper also says little about Britain’s willingness to use nuclear weapons first, even though nuclear first use has formed a part of the UK nuclear posture, either within NATO or in terms of independent use, for some five decades. The only substantive mention is as follows:

We deliberately maintain ambiguity about precisely when, how and at what scale we would contemplate use of our nuclear deterrent. We will not simplify the calculations of a potential aggressor by defining more precisely the circumstances in which we might consider the use of our nuclear capabilities. Hence, we will not rule in or out the first use of nuclear warheads. (emphasis added)

7. Neither the continued deployment of a tactical (substrategic) nuclear system nor the maintenance of a first use option is included in the Executive Summary of the White Paper.

8. Given that the government seeks a public discussion on the replacement of Trident prior to a vote in parliament, it is perhaps unfortunate that this core aspect of the UK nuclear posture gets so little attention. The Defence Select Committee has expressed concern over the dearth of information in this regard in the past, and may find it of interest to encourage more openness from the Ministry of Defence at the present time. This paper seeks to aid that discussion by:

— reviewing some aspects of the origins and development of UK nuclear forces relevant to this subject;
— summarising aspects of NATO’s nuclear posture; and
— pointing to the deployment of UK nuclear weapons in the past in circumstances other than a direct threat to the UK homeland.

ORIGINS

9. Britain commenced its nuclear weapons programme shortly after the end of the Second World War and tested a fission (atom) bomb in October 1952 and a crude fusion (hydrogen) bomb in May 1957. By the end of the 1950s Britain had developed a strategic nuclear force based on the V-bomber medium-range jet bombers, the Valiant, Victor and Vulcan.

10. From the mid-1960s, Britain began to develop a force of ballistic missile submarines capable of deploying the US Polaris submarine-launched ballistic missile (SLBM). The first such submarine, Resolution, commenced patrol in June 1968, and control of the UK strategic nuclear force passed to the Royal Navy in July the following year.

11. Britain also developed a range of tactical nuclear weapons, principally bombs, that were deployed on a number of land-based and carrier-based strike aircraft from the late-1950s onwards. These included the Scimitar, Buccaneer, Jaguar, Tornado and Sea Harrier, and the Lynx and Sea King helicopters. In addition, US-made nuclear depth bombs were carried by Nimrod maritime patrol aircraft and US-made Lance missiles and nuclear warheads, and nuclear artillery shells, were deployed with the British Army.
12. At its peak, in the early 1980s, Britain deployed some 400 of its own nuclear weapons together with several scores of US nuclear weapons. With the ending of the Cold War, the majority of the types of nuclear weapons declined fairly rapidly, but two major types of British nuclear weapon remained in service until the late 1990s, the Polaris submarine-launched ballistic missile and the WE-177 tactical nuclear bomb.

13. In the 1990s, these were replaced by Trident, another submarine-launched missile, which is deployed with two warhead variants, a powerful strategic version many times more destructive than the Hiroshima bomb, and a “sub-strategic” or tactical version that has, at most, around half the explosive power of the Hiroshima bomb and possibly much less. Since the 1950s onwards, Britain has operated a twin-track policy of committing forces to NATO and having them available for independent deployment and possible use.

14. Although the early nuclear weapons of the 1940s and early 1950s were essentially strategic—intended for use against the core assets of an opposing state, the development of nuclear weapons intended for tactical use within particular war zones was an early feature of the East-West nuclear confrontation. As well as free-fall bombs, short-range battlefield missiles were developed along with nuclear-tipped anti-aircraft missiles and several types of nuclear artillery and mortars. The presumption was that if such weapons were used, they would not necessarily involve an escalation to an all-out nuclear war. In other words, nuclear war-fighting could be controlled.

15. For NATO in the 1950s, prior to the Soviet Union’s having developed a large arsenal of nuclear weapons, the posture was codified in a military document MC14/2, colloquially termed the “trip-wire” posture. Any Soviet attack against NATO would be met with a massive nuclear retaliation, including the use of US strategic nuclear forces, and this assumed that the US could destroy the Soviet Union’s nuclear forces and its wider military potential without suffering unacceptable damage itself.

16. By the early 1960s, the Soviet Union was developing many classes of tactical and strategic nuclear weapons, making it less vulnerable to a US nuclear attack. In such circumstances, MC14/2 became far less acceptable to western military planners who consequently sought to develop a more flexible nuclear posture for NATO. This became known as “flexible response” and involved the ability to respond to Soviet military actions with a wide range of military forces, but also with the provision that nuclear weapons could be used first in such a way as to force the Soviet Union to halt any aggression and withdraw.

17. The new flexible response doctrine was progressively accepted by NATO member states in 1967 and 1968 and was codified in MC14/3 entitled Overall Strategic Concept for the Defence of the NATO Area. It was a posture with one particular advantage for the United States in that it might avoid nuclear weapons being used against its own territory. A US Army colonel expressed this rather candidly at the time, writing that the strategy:

“recognizes the need for a capability to cope with situations short of general nuclear war and undertakes to maintain a forward posture designed to keep such situations as far away from the United States as possible.” (Walter Beinke, “Flexible Response in Perspective”, *Military Review*, November 1968, p 48.)

18. By the early 1970s, flexible response was well established under the Nuclear Operations Plan which embraced two levels of the use of tactical nuclear weapons against Soviet forces, selective options and general response. Selective options involved a variety of plans, many of them assuming first use of nuclear weapons against Warsaw Pact conventional forces. At the smallest level, these could include up to five small air-burst nuclear detonations intended as warning shots to demonstrate NATO’s intent.

19. At a rather higher level of use were the so-called pre-packaged options involving up to 100 nuclear weapons, the US Army Field Manual at the time defining a package thus:

“a group of nuclear weapons of specific yields for use in a specific area and within a limited time to support a specific tactical goal . . . Each package must contain nuclear weapons sufficient to alter the tactical situation decisively and to accomplish the mission.” (Operations: *FM 100–5*, US Department of the Army, 1982.)

20. Thus, by the end of the 1970s, NATO had developed a flexible response strategy that involved detailed planning for the selective and even the early first use of nuclear weapons in the belief that a limited nuclear war could be won. One indication of this coming eventually from a remarkably candid interview given by the NATO supreme commander, General Bernard Rogers, who said that his orders were:

“Before you lose the cohesiveness of the alliance—that is, before you are subject to (conventional Soviet military) penetration on a fairly broad scale—you *will* request, not you may, but you will request the use of nuclear weapons . . . (emphasis in the original).” (*International Defense Review*, February 1986.)
21. The long-standing NATO policy of the first use of nuclear weapons was not promoted widely in public, where all the emphasis was placed on nuclear weapons as an ultimate deterrent. Even so, the policy was made clear on relatively rare occasions, as in this example of evidence from the Ministry of Defence to a Parliamentary Select Committee in 1988:

“The fundamental objective of maintaining the capability for selective sub-strategic use of theatre weapons is political—to demonstrate in advance that NATO has the capability and will to use nuclear weapons in a deliberate, politically-controlled way with the objective of restoring deterrence by inducing the aggressor to terminate his aggression and withdraw.”

CURRENT RELEVANCE OF NATO NUCLEAR PLANNING

22. With the ending of the Cold War, there was some easing of NATO nuclear policy, with withdrawal of a substantial proportion of NATO nuclear weapons from Western Europe as the Soviet Union withdrew from Eastern Europe, and the possibility of first use was considered increasingly unlikely, but not abandoned as a facet of NATO policy. Although the Soviet Union is no more, NATO nuclear planning still involves a policy of first use, British nuclear weapons remain committed to NATO and the United States still maintains tactical nuclear bombs at one of its remaining bases in the UK, Lakenheath in Suffolk.

23. Until around three years ago, the relevance of NATO’s Cold War nuclear posture appeared limited, given the low risk of a confrontation with Russia. That may well remain low risk, but NATO has undergone a recent transformation in that it is now engaged in major military operations in South West Asia, with some 32,000 troops involved, many of them involved in high intensity conflict.

24. That particular conflict in Afghanistan does not itself relate directly to NATO’s nuclear posture, but it does mean that NATO is now an alliance that has embraced the concept of operating out of area on a very substantial scale. As such, the relevance of its nuclear posture, including its maintenance of a nuclear first use option, is most certainly pertinent to this enquiry, given that the UK is one of only two countries that provides NATO’s nuclear forces. As the White Paper makes clear: “Nuclear deterrence plays an important part in NATO’s overall defensive strategy, and the UK’s nuclear forces make a substantial contribution”. (page 18)

BRITISH INDEPENDENT TARGETING

25. Since the 1950s, Britain has deployed nuclear weapons on many occasions outside the immediate NATO area of Western and Southern Europe and the North Atlantic. This included the basing of RAF nuclear-capable strike aircraft in Cyprus in the 1960s and 1970s, regular detachments of V-bombers to RAF Tengah in Singapore in the mid-1960s, and the deployment of Scimitar and Buccaneer nuclear-capable strike aircraft on the Royal Navy’s aircraft carriers from 1962 to 1978. Nuclear weapons were also carried on four Task Force ships during the Falklands/Malvinas War of 1982.

26. This long history of “out-of-area” deployments of nuclear weapons by Britain is matched by a number of indications of a willingness to use them in limited conflicts. In one of the few published studies of British tactical nuclear targeting, Milan Rai wrote in his 1994 paper Tactical Trident (Drava Papers):

“Sir John Slessor, Marshall of the RAF in the 1950s, and one of the most influential military theorists of the period, believed that ‘In most of the possible theatres of limited war . . . it must be accepted that it is at least improbable that we would be able to meet a major communist offensive in one of these areas without resorting to tactical nuclear weapons.’”

27. Although this came from a senior military figure rather than a politician, there were several statements from more official government sources. Back in 1955, the Defence Minister at the time (and later Prime Minister), Harold Macmillan stated in the House of Commons

“... the power of interdiction upon invading columns by nuclear weapons gives a new aspect altogether to strategy, both in the Middle East and the Far East. It affords a breathing space, an interval, a short but perhaps vital opportunity for the assembly, during the battle for air supremacy, of larger conventional forces than can normally be stationed in those areas.”

28. Such an idea of a small nuclear war was further expressed during the 1957 Defence Debate by the Defence Minister, Duncan Sandys:

“one must distinguish between major global war, involving a head-on clash between the great Powers, and minor conflicts which can be localised and which do not bring the great Powers into direct collision. Limited and localised acts of aggression, for example, by a satellite Communist State could, no doubt, be resisted with conventional arms, or, at worst, with tactical nuclear weapons, the use of which could be confined to the battle area.”
29. This historical context raises the question as to whether the smaller sub-strategic Trident warheads, or indeed the more powerful strategic versions, might be used independently of NATO. Britain reserves this right, and one of the more detailed assessments of the range of options for sub-strategic Trident warheads was made in the authoritative military journal International Defence Review in 1994:

   At what might be called the “upper end” of the usage spectrum, they could be used in a conflict involving large-scale forces (including British ground and air forces), such as the 1990–91 Gulf War, to reply to an enemy nuclear strike. Secondly, they could be used in a similar setting, but to reply to enemy use of weapons of mass destruction, such as bacteriological or chemical weapons, for which the British possess no like-for-like retaliatory capability. Thirdly, they could be used in a demonstrative role: i.e. aimed at a non-critical uninhabited area, with the message that if the country concerned continued on its present course of action, nuclear weapons would be aimed at a high-priority target. Finally, there is the punitive role, where a country has committed an act, despite specific warnings that to do so would incur a nuclear strike. (David Miller, “Britain Ponders Single Warhead Option”, International Defence Review, September 1994)

30. It is worth noting that three of the four circumstances envisaged involve the first use of nuclear weapons by Britain.

31. Such issues rarely surface in the public arena, but there has been concern expressed in parliament that the government has not been sufficiently clear about the circumstances under which British nuclear weapons would be used in post-Cold War circumstances. For example, the Defence Select Committee noted, in 1998:

   We regret that there has been no restatement of nuclear policy since the speech of the then Secretary of State in 1993; the SDR [Strategic Defence Review] does not provide a new statement of the government’s nuclear deterrent posture in the present strategic situation within which the sub-strategic role of Trident could be clarified. We recommend the clarification of both the UK’s strategic and sub-strategic policy.

32. This was, in part, in response to comments made to the Committee by the then Secretary of State for Defence, Mr (now Lord) Robertson. He had told the committee that the sub-strategic option was “an option available that is other than guaranteed to lead to a full-scale nuclear exchange”. He envisaged that a nuclear-armed country might wish to “... use a sub-strategic weapon making it clear that it is sub-strategic in order to show that... if the attack continues [the country] would then go to the full strategic strike,” and that this would give a chance to “stop the escalation on the lower point of the ladder”.

33. This statement indicated that “a country”, such as Britain, could consider using nuclear weapons without initiating an all-out nuclear war, and that the government therefore appeared to accept the view that a limited nuclear war could be fought and won. It was evidently not the clear statement that the Committee sought, and it did not indicate the circumstances in which such weapons might be used. In particular, it did not appear to relate to whether Britain or British forces had already been attacked with nuclear weapons, or whether nuclear weapons would be used first in response to other circumstances.

34. At the same time, there had been no evidence to suggest that Britain had moved away from the nuclear posture of the Cold War era that included the possibility of using nuclear weapons first. Indeed, just as the Cold War was winding down, the first Iraq War in early 1991 was one occasion when British nuclear use might have been considered. As the UK forces embarked for the Gulf in September 1990, The Observer reported that Britain was prepared to retaliate to an Iraqi chemical attack with nuclear weapons:

   “A senior officer attached to Britain’s 7th Armoured Brigade, which began to leave for the Gulf yesterday, claims that if UK forces are attacked with chemical gas by Iraqi troops, they will retaliate with battlefield nuclear weapons. The Ministry of Defence refused to confirm this last night, but it is the first unofficial indication that British troops might be authorised to use nuclear weapons to defend themselves if attacked.” (Observer, 30 September 1990).

35. More than a decade later and prior to the start of the second Iraq War in 2003, the then Secretary of State for Defence, Mr Hoon, was questioned by members of the Select Committee and appeared to indicate that Britain maintained this policy. In relation to a state such as Iraq he said that “They can be absolutely confident that in the right conditions we would be willing to use our nuclear weapons.”

36. This exchange did not make clear whether this would be in response to a nuclear attack initiated by a state such as Iraq, but Mr Hoon was questioned on this point on 24 March on the Jonathan Dimbleby Programme on ITV. He was asked whether nuclear use might be in response to non-nuclear weapons such as chemical or biological weapons. He replied:

   Let me make it clear the long-standing British government policy that if our forces if our people were threatened by weapons of mass destruction we would reserve the right to use appropriate proportionate responses which might... might in extreme circumstances include the use of nuclear weapons.

37. Later in the exchange, Mr Hoon made it clear that he could envisage circumstances in which British nuclear weapons were used in response to chemical or biological weapons. He was later asked by Mr Dimbleby:

   But you would only use Britain’s weapon of mass destruction after an attack by Saddam Hussein using weapons of mass destruction?
Mr Hoon replied:

Clearly if there were strong evidence of an imminent attack if we knew that an attack was about to occur and we could use our weapons to protect against it.

38. Surprisingly, Mr Hoon later confirmed (July 2003) that there had not actually been a change in policy since Mr John Major had ruled out the use of British nuclear weapons against Iraq in 1991, some time after the Observer news report cited above. The problem is that there have therefore been thoroughly confusing signals as to British nuclear weapons policies, and the current White Paper has done nothing to clarify the situation. Indeed in its brief statements about continuing to deploy a low yield nuclear system and not ruling out nuclear first use, there are firm indications that Britain will retain a far more flexible and usable nuclear system then the deterrent insurance policy that receives so much attention.

WARHEADS

39. UK nuclear warheads are produced at the Atomic Weapons Establishment at Aldermaston and nearby Burghfield which is responsible for “... initial concept and design, through component manufacture and assembly, to in-service support and, finally, decommissioning and disposal.” (AWE website) Although the White Paper states that the current warhead design “is likely to last into the 2020s” (page 30) AWE is presently undergoing a very substantial development programme, the reasons for which are not clear.

40. Current developments include the recently ordered Larch supercomputer with a power some ten times that of the Blue Oak computer installed in 2002, and the Orion Laser, due to be completed by the end of 2007 and 1,000 times more powerful than the current Helen Laser. In addition, a new Core Punch hydrodynamic testing facility is planned that will be tens times as powerful as the existing facility, and planning permission was sought last year for two new office blocks to accommodate 1,400 people.

41. AWE currently has some 3,600 people on its staff, is investing £1,050 million in new projects over the three years to 2008 and will have an annual budget of just under £1,000 million a year early in the next decade, equivalent to about 10 universities. According to AWE Today (December 2005). “At its peak the construction work will make AWE one of the largest construction sites in the UK—similar in scale to the Terminal 5 project at Heathrow.”

42. Although AWE is responsible for decommissioning and disposing of old warheads, Britain’s most recent systems, (the Polaris warheads and the WE177 tactical gravity bombs) were withdrawn at least a decade ago. A decision on a new warhead for the Trident replacement is not even going to be contemplated until the next parliament (White Paper page 31). It might therefore be helpful for the Ministry of Defence to be more informative as to the reasons for the current high level of investment in AWE, given that the cost of AWE over the period to 2050 is likely to exceed £35 billion.

CONCLUSION

43. Britain has deployed nuclear forces for 50 years. For most of that time, they have been primarily committed to NATO, which has maintained a nuclear targeting posture that includes the first use of nuclear weapons. Britain also retains the capability to use nuclear weapons independently, it maintains a tactical or substrategic variant of Trident, will have a similar capability in its replacement, and will retain the option of nuclear first use. It is currently investing heavily in its nuclear weapons research and production facility even though no new warhead programme is contemplated at present.

44. Unfortunately, the current debate on the replacement of Trident is being expressed primarily in terms of an ultimate deterrent, an insurance policy, whereas evidence suggests a substantially greater versatility. In seeking a “robust and thorough public and Parliamentary debate” the Committee might aid the process by examining the wider issues and gaining more of an insight into government thinking on these issues than is currently available in the public domain.

15 January 2007

Memorandum from David Broucher

I was asked to submit written evidence to the Inquiry. I shall confine this to one aspect of the terms of reference: the possible impact of the Government’s decision to retain and renew the deterrent on the UK’s non-proliferation efforts, which is my area of expertise.

Why support non-proliferation?

The central dilemma is this: how can we continue to deny others the right to develop the same capability we claim for ourselves? Since we believe that our deterrent enhances international security, would not the same be true of nuclear weapons in the hands of others? In other words, would not international security be enhanced by nuclear proliferation?
Plainly this makes no sense. Nuclear weapons are not a risk-free acquisition. The more countries possess them, the greater the danger that they will be used, and avoidance of their use is of paramount importance. Therefore their spread must be limited.

But in that case should we not also be trying to reduce the number of countries that already possess the weapon, and should not that reduction include ourselves?

The government’s answer is that we live in a dangerous world, and that it would be imprudent to disarm. It is possible to support that view, while remaining troubled by the logic. The world is dangerous for other countries. Some of these choose nevertheless to live without acquiring nuclear weapons. Others may be considering whether they should follow our example. The government’s reasoning on its own does not, therefore, provide an adequate answer to the dilemma. We need to delve deeper into the theoretical basis for the non-proliferation strategy.

Why should some go nuclear but not others?

A frequent argument is that “dangerous countries” should not be allowed to acquire the weapon. Taking direct action to curb proliferation has obvious attractions, and a far-reaching counter-proliferation strategy has been evolved to deal with the threat. But the campaign to isolate and interdict such countries is only likely to succeed if we maintain a broad international consensus that nuclear weapons are “a bad thing”. This in turn might best be based on some common norms of international law. If the Non-proliferation Treaty (NPT) did not exist, therefore, we would be compelled to invent it. In doing so, we would be unlikely to avoid the bargain on which the NPT is based: that nuclear proliferation can only be arrested if the existing nuclear weapon states commit themselves to disarm and if civil nuclear technology remains available to all.

International law may, of course, make the task of isolating and dealing with problem countries harder, but we would be most unwise to abandon it on that account. Its main strength is not in the handling of individual cases but in the maintenance of the international consensus.

A possible difficulty with the “dangerous country” theory is its implication that we should be less concerned about proliferation to more moderate countries. In fact the opposite is the case. A nuclear adventure by a pariah state is certainly worrying, and it needs to be contained. The larger objective is to prevent a general conclusion by major industrial states that do not yet have nuclear weapons that their security can only be maintained by acquiring them. This may seem like a distant risk, but the jury is still out on whether we will be successful in preventing it over the long term.

Once the possession of nuclear weapons is recognised to be acceptable, there is no defensible threshold for the number or type of countries that could or should acquire them. We would therefore be most unwise to relinquish the consensus that the existence of nuclear weapons is ultimately unacceptable. Their possession by us is temporary, pending an agreement on nuclear disarmament, which in turn depends, in the view of some, on general and complete disarmament. That culmination may remain distant, but we should continue to strive to attain it. Of course, we must be genuinely committed to this end, and not just pursue it as a hypocritical cover for our activities.

In the past it has been possible to preserve our position by arguing that certain countries acquired nuclear weapons to meet a particular security need in given historical circumstances and can now only give them up as part of an agreed disarmament process. Other countries, those that did not need to acquire the weapon before, would be wrong to do so now, because of the added costs and risks involved.

Although some, but not all, non-nuclear weapon states (NNWS) still accept this argument de facto, they are inclined to question the logic. If nuclear weapons are expensive and dangerous, why are they so entrenched in the military security postures of the countries that keep them? Can the nuclear weapons continue to be tolerated once the historical circumstances that gave rise to them have terminated? When might the promised disarmament process be expected to start? Parrying such questions becomes progressively more difficult as the “historical circumstances” retreat further into the past.

Will the UK decision encourage proliferation?

It seems most unlikely that a would-be proliferator would be influenced definitively either way by the UK’s decision. Strategic weapon policies evolve over decades for a wide variety of reasons and are not susceptible to short term change based on the calculation of one other country. Nor is the United Kingdom the adversary of choice for those currently in the proliferation stakes.

On the other hand, the UK’s decision will undoubtedly be used as a political defence by would be proliferators, and the resulting propaganda will have some influence with uncommitted countries whose support we need to retain if we are to uphold the efficacy of non-proliferation regimes.
In the longer term the danger is that the UK’s decision will be taken as one of a number of factors indicating that nuclear weapons are now a permanent feature of the international security environment. They are no longer a response to a specific security need, but an insurance policy against all comers. This will signal that efforts to eradicate nuclear weapons have effectively been shelved, which could combine with other factors that are already eroding confidence in the Non-proliferation Treaty and contribute to a seismic shift in international security postures.

**Possible Remedies**

In the past it has been possible to point to the process of bilateral and multilateral nuclear disarmament and its gradual progress in limiting existing weapons and arresting the development of new ones. However, with the failure of the Comprehensive Test Ban Treaty to enter into force, this process has stalled, and even gone into reverse. The UK has ceased, for whatever reason, to advocate multilateral nuclear disarmament with any conviction. None of the other nuclear weapon states seem to have much interest in reviving the process, so that without the UK’s advocacy, it risks stagnating.

Plainly this trend will not be easily reversed, and most of the levers are not under UK control. We may have good reasons to avoid rocking the international boat, especially in relation to our principal ally, when the potential rewards seem at best remote. Nevertheless, there are some ideas that could be pursued further against the day when other countries may again be more receptive to negotiations. In the remainder of this memorandum I will outline two of them, which the Defence Committee might be invited to endorse.

**Verification**

It used to be axiomatic that any arms control agreement would need adequate verification to ensure compliance. For example, the International Atomic Energy Agency (IAEA) provides assurances that declared fissile material is not being diverted from civil uses, and that no clandestine acquisition or production of fissile materials is occurring. So to an extent it verifies compliance with the NPT. Lately the concept of verification has been challenged for several reasons. Incomplete verification could provide a false sense of security, but more intrusive verification could be used for intelligence gathering. Even when evidence of misconduct is revealed, enforcement remains problematic.

These are potent objections, but technology does not stand still, and there may be new ways in which compliance with nuclear disarmament could be verified remotely without compromising design features or spreading nuclear know-how. The Atomic Weapons Establishment (AWE) has already done some work on this, but the results need to be placed in a political context showing how a disarmament process could actually be carried out and what its end state would be. It is obvious that nuclear disarmament will only proceed if it enhances everyone’s security.

**Security Assurances**

The NPT provides a basis for countries that do not possess nuclear weapons to assure each other of their good intentions, but it says nothing about why a country might decide to renounce the nuclear option in the first place. This decision can only be based on a country’s perception of its own security needs. A country may decide that it does not need to acquire nuclear weapons because it enjoys the protection of an existing nuclear power, because it does not feel threatened, or because it has made a particular risk and cost calculation.

Further consideration could be given to ways of maximising the chances that a given country will continue to take the “right” decision. In particular, work is needed on ways of expanding the concept of “security assurances”. There are both positive assurances, in which a nuclear weapon state extends an umbrella to its allies, and negative assurances, in which a nuclear weapon state assures a non-nuclear adversary that nuclear weapons would not be used in a potential conflict. There are various ways in which this latter concept could be expanded and adapted.

I am submitting this evidence as a visiting fellow at the Mountbatten Centre for International Security (MCIS) at Southampton University. I am indebted to Professor John Simpson of MCIS for his help in preparing it.

15 January 2007

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Memorandum from Nick Ritchie

(i) The British Government has decided to retain nuclear weapons into the 2050s by modernising the current Trident weapon system. The government’s multiple rationales for doing so are set out in the December 2006 White Paper, supported by a particular interpretation of the strategic threat environment. It is important to recognise that the government’s rationales and threat perceptions are based on a series of assumptions and assertions rather than a set of objective truths.
(ii) In order to facilitate as robust and thorough debate as possible this submission highlights the central assumptions and assertions presented in the White Paper. It raises a series of questions that could usefully be put to those policy-makers involved in the Trident modernisation policy-making process.

(iii) This submission does not argue that the government’s assertions and assumptions are wrong or unfounded. The purpose is to position the government’s arguments as subjective interpretations (rather than objective facts) in order to allow a thorough and critical analysis of the government’s claims.

**THE GOVERNMENT’S ASSERTIONS AND QUESTIONS ARISING**

1. The government argues that “the conditions for complete UK nuclear disarmament do not yet exist.” For this judgment to change, the paper argues, there would need to be greater progress in reducing existing global nuclear stockpiles and in global non-proliferation (p.15 para 2-12 of the White Paper).

1.1 The government asserts that the possession of nuclear weapons by the UK must remain rhetorically linked to further progress in world-wide nuclear reductions, but it does not say why. Several questions stem from this:

Q: *If there is a clear relationship between Britain’s nuclear arsenal and those of other countries in the context of enhancing British security, what is it and how does it operate?*

Q: *What, for example, is the link, if any, between British security and the gradual emergence of North Korea’s primitive nuclear force over the past 15 years?*

Q: *Why should Britain not move beyond possession of nuclear weapons just because other governments still deem them necessary? Why should British procurement decisions be dependent upon the nuclear arsenals of others that constitute little or no strategic military threat to the UK?*

1.2 The assumption behind the government’s judgement is twofold: first, that Britain’s security will somehow be diminished if it winds down its nuclear capability whilst other countries retain nuclear arsenals; and second, that the only way in which the UK will consider moving beyond nuclear weapons is as part of a global nuclear disarmament initiative. The logic behind this assumption needs to be made clear.

1.3 The government also implies that there is only one choice to be made, and that is between a robust but minimum nuclear force and nuclear disarmament. In fact there are a number of intermediary steps. Much work has been done since the end of the Cold War to explore how the nuclear-weapon states might work towards lower and lower numbers of nuclear weapons. There is no reason why the UK could not explore and eventually undertake such intermediary steps.

2. The government argues that “the fundamental principles of nuclear deterrence have not changed since the end of the Cold War” (p 17 para 3–3).

2.1 This is an assertion, a point of view. Nuclear deterrence is a contested concept. It evolved in strategic thinking throughout the Cold War from massive retaliation to assured destruction to flexible response. Since the end of the Cold War the utility and validity of nuclear deterrence has been widely questioned on both the left and right of political thought as the world enters a “second nuclear age” characterised by the end of the Cold War superpower confrontation and the spread of nuclear weapons beyond the traditional “major powers”.

2.2 The ‘principles’ of nuclear deterrence are not objective truths; instead they are better conceived as theoretical concepts that prescribe particular “ways of doing things”. Different bodies of thought have different things to say about nuclear weapons and nuclear deterrence. The government’s assertion is not necessarily wrong, but it does not provide any evidence for its case.

3. The government argues that “Nuclear weapons remain a necessary element of the capability we need to deter threats from others possessing nuclear weapons” (p 17 para 3–3).

3.1 This is a bold assertion. It is based on the assumption that “we”, Britain, need to actively deter the use or threat of use of nuclear weapons by other countries that possess them. This need in terms of the threat Britain faces is asserted, it is not explained.

3.2 This statement is also based on the assertion that nuclear weapons are a necessary response to the possibility of a military threat from nuclear armed foes. This is not the case. Japan, for example, faces serious potential nuclear threats from North Korea, China and, at a stretch, Russia (with whom it still has territorial disputes). Yet it does not deem the possession of nuclear weapons a necessary response, it has responded in other ways. Similarly, in 1994 Ukraine decided against retaining the Soviet nuclear forces it inherited after the Cold War and joined the NPT as a non-nuclear-weapon state despite a very uncertain security environment. In light of this the question must be asked:
Q: Why does Britain specifically need nuclear weapons to actively deter the use or threat of use of nuclear weapons by other countries that possess them? Why not Germany, Venezuela, or Thailand for example?

3.3 Use of terms such as necessity and need imply that the government has little choice but to retain nuclear weapons. In fact the White Paper constructs a particular threat environment and presents certain assertions as facts in order to legitimise the continued possession of nuclear weapons as the only “rational” or “logical” or “appropriate” response. This is not the case. Perfectly valid but different interpretations of threat and emphasis on different assertions as fact yield different “logical” responses.

4. The government argues that the UK should retain nuclear weapons in order to provide “an independent centre of nuclear decision-making” that “enhances the overall deterrent effect of allied nuclear forces” (p 18 para 3–4 bullet three).

4.1 This assumes two things: first, that the NATO alliance requires multiple ‘centres of nuclear decision-making’ to be effective; and second, that without Britain’s nuclear forces the ‘deterrent effect’ of NATO’s military might would be reduced or undermined. This raises a number of questions:

Q: If this logic is accepted, would more independent centres of decision-making increase the “deterrent effect” yet further? Would a nuclear Germany, Italy and Greece, for example, strengthen NATO and therefore British security?

Q: What is the logic behind the assertion that having multiple centres of nuclear decision-making enhances the “overall deterrent effect” of NATO, other than saying that it does?

Q: Under what realistic future conditions would Britain place itself at risk of nuclear attack that did not involve the vital security interests of NATO and/or the USA? (Particularly since on p 23 para 4–7 the government states that it considers “a deep and enduring breakdown in relations with the US” highly unlikely)

5. The government seeks to justify continued possession of nuclear weapons by stating that the proliferation of nuclear weapons is likely to continue and, when combined with “other risks and challenges to future global stability”, “could lead to an increased risk of conflict involving a nuclear-armed state” (p 18).

5.1 The assertion here is that more nuclear-weapon states mean more chance of conflict with a nuclear power and therefore a greater need for a British nuclear arsenal. The government does not explain the logic behind this assertion. One could equally argue that Britain would be less likely to engage in conflict with a nuclear-armed adversary than a non-nuclear armed adversary (this case is often made in the context of why the US opted for regime in Iraq and diplomacy in North Korea over their respective WMD programmes).

5.2 One could also argue that nuclear weapons may spread to countries that are either friendly to the UK or that seek a robust military “defensive” solution to the threat of regime change by the US-led Western alliance in line with the government’s own understanding of nuclear deterrence (that nuclear weapons remain a necessary element of the capability a state may need to deter threats from others possessing nuclear weapons).

5.3 It is also important to question why continued possession of nuclear weapons by Britain is an appropriate response to the risk of conflict with a nuclear-armed state brought on by “other risks and challenges to future global stability”. One could equally argue that continued possession of nuclear weapons by Britain could exacerbate future global instabilities by reinforcing the perceived utility of nuclear threats as an appropriate response to the types of risks and challenges outlined in paragraph 3–7 of the White Paper. This raises the question of:

Q: Why should the further spread of nuclear weapons result in an increased risk of conflict involving a nuclear-armed state?

Q: Why is retention of a nuclear capability considered an appropriate response to the risk of conflict with a nuclear-armed state brought on by “other risks and challenges to future global stability”?

5.4 The broad argument is that a British nuclear arsenal “is an essential part of our insurance against the risks and uncertainties of the future” (p 5). This “future uncertainty argument” is powerful because the international strategic environment undoubtedly will change over the next 30–50 years and history teaches us to expect such changes and surprises.

5.5 It is important to be clear, however, that future uncertainty in context of British nuclear weapons refers to the specific risk of the possible emergence of a strategic nuclear threat to the UK and Western Europe, rather than just the emergence of general international security threats per se (in which nuclear weapons may play little or no role).

5.6 In essence the government is arguing that the nature of the threat for which British nuclear weapons may be needed in the future could be so great (threatening the political survival of the UK and Western Europe) that even the slightest risk of such a threat emerging is sufficient reason to justify retention of Britain’s existing nuclear weapons.
6. The government outlines three specific areas of future “nuclear risk” to justify continued possession of nuclear weapons:

— The re-emergence of a “direct nuclear threat to the UK and our NATO Allies”. The use of “re-emerge” implies the threat here is a resurgent Russia (p 19 para 3–9).

— The emergence of one or more states with “a more limited nuclear capability but one that poses a grave threat to our vital interests”. The focus here is likely Iran (p 19 para 3–10).

— International terrorists “that may try to acquire nuclear weapons” with the support of a state (p 19 para 3–11).

6.1 These threat perceptions are of course open to question. Nevertheless, the government does not clearly state how the re-emergence of a Russian nuclear threat, the threat of state-sponsored nuclear terrorism, or nuclear blackmail by a “rogue” state such as Iran will be reduced or eliminated through British possession, use or threat of use of nuclear weapons. The important question to ask is:

Q: What vital British interests will a resurgent Russia or a nuclear-armed “rogue” threaten that can be effectively addressed through the threat of a British nuclear attack?

6.2 In addition:

Q: Under what future conditions might Britain find itself subject to “nuclear blackmail” by a “rogue” state and why would a counter nuclear-threat be the most appropriate response?

6.3 One can argue that it is extremely unlikely that Britain will put itself in a position whereby it might inspire a genuine nuclear threat, “blackmail” or otherwise, from a “rogue” state. The proliferation of nuclear weapons will constrain British foreign and security policy options regardless of whether the UK has a nuclear arsenal and depending on the objectives of British foreign and security policy.

6.4 In the context of nuclear terrorism, it is important to ask:

Q: Is it legitimate to threaten a nuclear retaliatory attack that would in all likelihood kill at least tens of thousands of people whose rulers may or may not have directly or indirectly assisted the terrorist organisation responsible?

Q: How can nuclear deterrence operate in such wholly uncertain circumstances? The government needs to go beyond a statement of belief that “retention of an effective nuclear deterrent by the UK has a role to play in reducing the potential threat from state-sponsored nuclear-armed terrorist” (p 20 box 3–1)

7. The government argues that “there is no evidence or likelihood that others would follow the UK down a unilateralist route” if it moved beyond nuclear weapons and became a non-nuclear-weapon state (p 20 box 3–1)

7.1 This assertion here is that the British decision will not cause other states to move beyond nuclear weapons and will therefore have little or no effect on international nuclear non-proliferation efforts. As the Prime Minister says in his Foreword to the White Paper, those who question the decision to retain nuclear weapons “need to prove that such a gesture [disarmament] would change the minds of hardliners and extremists in countries that are developing nuclear capabilities” (p 5).

7.2 This misses the point. Whilst a British decision to retain or give up its nuclear arsenal is unlikely to directly affect the nuclear weapons programmes of current and suspected nuclear-weapon states, such a decision does not exist in a vacuum. It will either reinforce or weaken the perceived utility of nuclear weapons in international relations and thereby either support or undermine the international nuclear non-proliferation regime. The extent to which this will occur and the extent to which it is considered to matter is open to question:

Q: How does the government conclude that its decision to retain nuclear weapons well into the future will have little or no impact on the broad salience of nuclear weapons in international relations, and does it think this matters?

8. The government suggests that it will retain nuclear weapons until there is “compelling evidence that a nuclear threat to the UK’s vital interests would not re-emerge” in the future (p 20 box 3–1).

8.1 The White Paper discusses retention of a nuclear arsenal in the context of protecting Britain’s “vital interests” without going into any detail about what it considers those interests to be, other than the survival of the nation-state. Without a more detailed account of the government’s interpretation of Britain’s vital national interests, it is not possible to judge whether a nuclear arsenal is required to defend them. It is therefore important to ask:
Q: What are Britain’s specific “vital interests” that a nuclear arsenal is necessary to protect and secure now and in the future?

GENERAL POINTS

9. The government’s analysis of nuclear threats and appropriate responses is conditioned by Britain’s nuclear status.

9.1 The whole thrust of the White Paper is based on presentation of a set of rationales and threat perceptions to justify Britain’s current and future possession of nuclear weapons. The analysis is not objective but is but conditioned by Britain’s nuclear history and current nuclear status.

9.2 It is unlikely that a non-nuclear-weapons state in Britain’s secure geo-strategic position would conclude that it required a nuclear capability to meet current and potential nuclear threats. As Commodore Tim Hare, former MoD Director of Nuclear policy, said in 2005, if Britain did not now have nuclear weapons it is very unlikely that it would seek to acquire them.72

9.3 In this context it is important to recognise that arguments contrary to the government’s rationale for retaining a nuclear force beyond the lifetime of the current Vanguard SSBN fleet by their very nature raise significant doubts as to the necessity of retaining the current Trident force and its operational posture today.

9.4 Therefore the difficulty for the government is that if it accepts even part of the case for not retaining a post-Vanguard nuclear capability in the future it risks lending legitimacy to arguments which can then be levelled at current Trident forces and deployments—a development it wants to avoid.

9.5 In order to avoid the debate on future nuclear capabilities merging into a debate on current Trident forces and deployments the government has little choice but to apply the strategic rationale used to justify the current Trident force to a post-Vanguard nuclear force.

9.6 The strategic rationale used to justify the current Trident force is one of future strategic uncertainty. This “threat” emerged to replace the blank space left by the demise of the Soviet nuclear threat in the early 1990s that had justified the procurement of Trident in the early 1980s. A new strategic “threat” to justify Trident was needed since most the expenditure for the Trident force had been met by the end of the Cold War and cancellation of the system was not considered an option.

9.7 The result is that rationales and threat perceptions devised to fill the void left by the Soviet Union in order to justify the expense and sophistication of the current Trident system in the early 1990s are now being applied to the current debate and are likely to persist for many decades after the end of the Cold War.

10. The role of British nuclear weapons in Britain’s political-military relationship with US is studiously avoided.

10.1 The Labour government and wider British political establishment argue that the UK should play a major role in global affairs and that it is important for global stability that it does so. In keeping with post-war British tradition, Prime Minister Tony Blair is an ardent Atlanticist and firmly believes that Britain’s fortunes on the world stage, particularly its security, necessitate a close relationship with Washington.73

10.2 The centrality of the US cannot be overestimated in the British government’s strategic security policy and planning. Britain’s defence doctrine is primarily, although not exclusively, designed to support and influence US national security policy and its military activities. From the government’s perspective, Britain’s military capabilities, their interoperability with US forces, and an enduring political commitment to US national security objectives allow it to maintain its own security, have a degree of influence in Washington, and remain a significant force in shaping international security.74 The importance of political and military credibility in Washington through interoperability with US armed forces and participation in US interventionist activity in the name of international stability is clear.75

10.3 Britain views its nuclear capability as an important power projection, deterrent and potential warfighting tool that demonstrates and validates Britain’s role as a powerful and credible political and military ally. Britain’s nuclear weapons relationship with Washington is therefore considered an important function of the closeness of the broader military and political relationship.76 In particular, Britain’s possession of nuclear weapons facilitates its willingness to support the US militarily in interventionist activity that Britain believes will enhance international, and therefore British, security. They provide a reassurance that, in the process of interventionist engagement, regional powers will not transgress major UK interests.77

72 Tim Hare, “What Next for Trident?”., RUSI Journal, April 2005, p 30.)
77 Brad Roberts, Multipolarity and Stability, Institute for Defense Analysis, November 2000. Roberts states that “A good argument can be made that the primary function of nuclear weapons here is not deterrence, but self-assurance”, p 13.
10.4 By facilitating that support, Britain’s nuclear weapons serve a vital role in allowing Britain to remain the Washington’s primary military ally, thus ensuring to a considerable extent Britain’s enduring security. Being viewed as a major and responsible world power and the closest ally of the US is intrinsic to the defense and wider political establishment’s enduring identity. Challenges to that identity are likely to be vigorously resisted.

10.5 The relationship between Britain’s nuclear weapon capabilities, its broader foreign and security policy and its political-military relationship with the US is barely mentioned in the White Paper. It does emerge indirectly: when the paper discusses British nuclear weapons in the context of collective security of the “Euro-Atlantic area”, and given NATO’s mandate in Afghanistan this must be taken to include “out of area” defence of collective security interests (p 18 para 3–4 bullet 4); when it argues that nuclear proliferation could “fundamentally constrain our foreign and security policy options”, most likely in the context of interventionist activity (p 19 para 3–10); when it suggests that Britain will continue to engage in activity that could subject it nuclear blackmail by a “rogue” state or state-sponsored nuclear terrorism (p 19 para 3–10, 3–11); when it argues that any future nuclear capability must be of global reach “to deter threats anywhere in the world” (p 22 para 4–4); and finally in the fact that Britain relies heavily on US material assistance to support its nuclear arsenal.

10.6 The White Paper states that “the US has never sought to exploit our procurement relationship in this area as a means to influence UK foreign policy” (p 23 para 4–7). In the context of the above that statement is beside the point: It is the UK that pursues a strong relationship with America to ensure continued possession of a nuclear deterrent that in part facilitates its military alliance with, and status in, Washington that is in turn seen to guarantee Britain’s long-term security.

15 January 2007

Memorandum from Oxford Research Group

SUMMARY

There is no need to rush into a binding decision on replacing the Trident system at this time. Binding major financial commitments would be imprudent.

Proper time should be taken to debate the post Cold War security environment, in particular assessing the relative probabilities of threats which it is suggested UK nuclear weapons could deter, and threats which could occur if the non-proliferation regime breaks down.

The UK should be seeking urgently to encourage more rapid progress on non-proliferation and multilateral nuclear disarmament. The UK would have more credibility and flexibility in such negotiations if it had deferred long-term decisions on its nuclear weapons.

INTRODUCTION

Oxford Research Group (ORG) is a small independent think tank based near Oxford which works to develop effective methods for people to bring about positive change on issues of national and international security by non-violent means. Established in 1982, it is a registered charity and a public company limited by guarantee.

Dr Frank Barnaby is Nuclear Issues Consultant to ORG. His previous positions include nuclear physicist, Atomic Weapons Research Establishment, Aldermaston; Director, Stockholm International Peace Research Institute; Professor, Free University of Amsterdam; Professor, University of Minnesota. Professor Ken Booth, E H Carr Professor of International Politics, Department of International Politics, University of Wales Aberystwyth, has been a visiting researcher at the US Naval War College, Dalhousie University in Canada, and Cambridge University. Malcolm Savidge is Parliamentary Consultant to ORG. He was previously MP for Aberdeen North (1997–2005), and Convener, All-Party Parliamentary Group on Global Security and Non-Proliferation (2000–05). Honorary Fellow, Robert Gordon University.

1. “WHY DO WE NEED TO TAKE A DECISION NOW?”

1.1 The first question on Fact Sheet 1 accompanying the White Paper—“Why do we need to take a decision now?”—is pertinent. Certainly the Press from The Daily Telegraph and The Daily Mail to The Daily Mirror and The Guardian asked “Why the rush?” and “Why now?”

1.2 As stated in ORG’s written evidence to the Committee’s first Inquiry on this issue, many experts in relevant fields have also expressed surprise that the Government wished to make this decision during the current Parliament.

1.3 There is a risk that there will be reduced public confidence in a decision which appears to be rushed, particularly if there is mistrust about the grounds for an early decision.
1.4 The White Paper indicates that timing issues relate primarily to the submarine platform.

1.5 The time-table for making this decision depends on four factors: the life-span of Trident, the date from which the life span is deemed to start, any extension programme and the required lead-time for a replacement.

1.6 The Strategic Defence Review indicated a thirty year life expectancy for the submarine.

1.7 At the end of December 2002, Defence Minister, Dr Lewis Moonie stated: “For as long as necessary we will maintain a nuclear deterrent and that means Trident to the end of its useful life, a minimum of 30 years”.

1.8 In the 2003 Defence White Paper, which referred to the decision being taken in the next parliament, the life expectancy of Trident was given as 30 years.

1.9 In evidence to the Committee on 24 November 2004 [Q548], Admiral Sir Alan West said, “as was said in the SDR, we expected the current deterrent, the Trident Force, to last 30 years”.

1.10 All these statements were made before any decision had been taken on life extension.

1.11 The MoD memorandum to the Select Committee’s first Inquiry stated: “The submarines were procured with a designed operational life of 25 years and on this basis, they would start to be withdrawn from service late in the next decade.

1.12 This seems surprising not only because it is at variance with previous statements, but also because patrols and operational demands have been significantly reduced since the Cold War ended, and a less intensive deployment regime might be expected to increase longevity.

1.13 The change would seem so substantial, and of sufficient economic significance, that it might be expected that it would only have been made after careful analysis by the MoD.

1.14 However when Rear Admiral Mathews, Director General Nuclear, MoD gave evidence to the Committee 21 November 2006, he was clearly unaware that life expectancy had previously been given as 30 years, in the face of repeated questioning.

1.15 The White Paper and the accompanying Fact Sheets state repeatedly that the submarines were “only designed for a 25 year life”. In view of 1.5, 1.6, 1.7, 1.8 above, prima facie this appears to be factually incorrect.

1.16 The life span could start from manufacturers’ first sea trial, commissioning or entry into operational service: for the first Trident submarine, HMS Vanguard the respective dates are 1992, 1993 and 1994. The White Paper chooses the first option; this is unusual, further reduces the expected life span and brings forward the need for a decision.

1.17 With lead-time, Vanguard took 13–14 years from decision to going into service; Astute took nearly 15 years, but was reported to be subject to “years of delay and cost overruns” [Michael Evans, Defence Editor, The Times, 17 April 2006]. Professor Michael Clarke suggests a lead-time of 10–15 years, while tending to favour the upper end of that range [Does my bomb look big in this?, International Airs, January 2004, p 55].

1.18 The 2005 RAND report prepared for the MoD assessed that “design of a follow-on SSBN class would have to start approximately 15 years prior to the desired in-service date for replacement submarines”. [J Schank et al, Sustaining Design and Production Resources, The United Kingdom’s Nuclear Submarine Industrial Base, Vol 1, p xviii].

1.19 In its first Report, the Committee assumed “that procurement of a Trident replacement would take approximately 14 years” [p 29, para 110 and conclusions].

1.20 The White Paper sets a lead-time of 17 years or around 17 years, and on that basis the Prime Minister says the decision must be made early in 2007. This contrasts with Dr John Reid’s evidence to the Committee on 1 November 2005, “It is not absolutely essential the decision is taken during this Parliament but it would be highly desirable in my view”.

1.21 The White Paper claims its estimate of the lead time is based on experts, the judgement of industry, and French and US experience, but provides little supporting evidence.

1.22 Evidence from the manufacturers is vital, but they have a vested interest. From the Committee’s Second Enquiry it is clear that there are commercial interests in an early decision and early replacement.

1.23 An unduly precipitate decision on this issue risks exposing the government to many of the same criticisms that were made of decisions taken prior to the Iraq war. These included the allegation that expert evidence was used selectively, and that evidence which supported the Government’s favoured option was insufficiently rigorously questioned. It has also been suggested that Parliament was rushed into a premature decision, and that in our adversarial system a situation where Prime Minister and Leader of the Opposition were committed to the same course of action and the same timetable contributed to insufficient scrutiny.

1.24 If the decision is taken in early 2007, it will be taken under the present Prime Minister, and it is reported that he sees this as a “legacy” issue.
1.25 A period for concept studies is included in the Government’s 17-year lead time. However, on 30 June 2004 Geoff Hoon informed the House [Hansard, col 356–358] that concept studies were undertaken between May 2002 and May 2003 at a cost of around £560,000. Furthermore any further studies could be agreed and undertaken before any irrevocable decision is taken.

1.26 The Committee in its first report, based on the 25-year life expectancy, concluded that a decision could be delayed to 2010, with a binding decision not required until 2014.

2. NEED FOR A PROPER DEBATE

2.1 In its first report the Committee welcomed “the Government’s promise of a full and open debate, in Parliament and in the country at large”.

2.2 When the last decision was taken on replacing submarine-based British nuclear weapons in 1980, the then Labour Shadow Secretary of Defence, William Rodgers, argued that an open debate required a Green Paper.

2.3 A Green Paper in which this Government set out its position, but was then open to consultation, before producing a White Paper would have seemed the best way of achieving open debate.

2.4 As it is, producing a White Paper in December and having a vote in March, when recesses are taken into account, seems to provide far too little time for scrutiny and expert analysis of the Government’s case. Indeed the Committee may feel that it is being forced into an unduly rushed enquiry.

2.5 Given the totally changed strategic environment of the post-Cold-War period, and that, as the Prime Minister said, the “consequences of a misjudgement on this issue are potentially catastrophic”, far more time should be provided for Parliament and the people to take a considered decision.

3. UK SECURITY IN THE 21ST CENTURY

3.1 In his statement, the Prime Minister described British nuclear weapons as “one of the mainstays of our security since the war”. This seems questionable: in the first decade after World War Two, the UK did not have its own nuclear weapons. In the period from then until the end of the Cold War, it is debateable how far British and French nuclear weapons influenced the deterrence between the USA and the Soviet Union. In the period since the Cold War, the nature of the security environment has not been one in which British nuclear weapons have been particularly relevant.

3.2 In looking ahead to the future, there can be no absolute security. The balance of relative risks must be assessed.

3.3 As the White Paper says [3–8]: “Currently no state has both the intent to threaten our vital interests and the capability to do so with nuclear weapons.”

3.4 Britain is not currently threatened by any other nuclear weapons state, and is very unlikely in the future to be involved in unilateral confrontation of that order with, say, Russia or China.

3.5 The UK faces no present or likely future threat within our own European region.

3.6 The British Empire is reduced to very few dependant territories.

3.7 Therefore out of region, military confrontation is liable to be under the auspices of the United Nations, NATO or possibly as part of a US ‘coalition of the willing’. In any of these circumstances we would have the deterrence of the largest conventional and nuclear forces in the world.

3.8 The Prime Minister, in his statement, spoke of “circumstances where we are threatened but America is not”. However, surely we can be confident that no future British Prime Minister would consider placing Britain in a position where, without the support of the UN, NATO, the United States or our other allies, we would become involved in a unilateral confrontation with another nation that could lead to a nuclear exchange.

3.9 North Korean nuclear weapons and the possible future acquisition of such weapons by Iran are certainly a serious threat to regional security and a potential threat to global security. However, they are not an immediate or direct threat to the UK, and there is no reason to suppose they would have either the intention or the capability to initiate unilateral military confrontation with the UK. UK involvement in seeking to contain and reduce such threats should be multilateral and diplomatic.

3.10 There is general agreement that nuclear deterrence is irrelevant for any future nuclear terrorist groups, as they are unlikely to have any substantial geographical location, they may well be suicidal, and they might well actually welcome the increased death, destruction and confrontation that could be caused by a general retaliation against their neighbourhood.

3.11 The Prime Minister and the White Paper spoke of the possibility of Britain deterring governments which might sponsor or assist nuclear terrorism. Some countries sponsor terrorism, but this is usually related to regional conflicts. These are usually groups with specific political objectives, and likely to view massive death caused by nuclear weapons as counter-productive. The main threat of nuclear terrorism comes from apocalyptic groups like al Qaida, with absolutist objectives and at war with most of the world. A state would
be unlikely to provide nuclear weapons to such groups, unless they could control them. If they could not control them, how would they know that the targets would not be in USA or Russia, and why then would UK nuclear weapons deter this, where larger stockpiles would not? Does this scenario envisage a state and a terrorist organisation, with an agreed objective of attacking the UK, as a sole target, with nuclear weapons? It also presumably assumes that the state would believe that it would be sufficiently clearly associated with the attack to provoke nuclear retaliation if the UK had nuclear weapons, but that it could live with likely response of the world community otherwise. Apparently this scenario “is not utterly fanciful” and “not impossible to contemplate”.

3.12 The White Paper speaks of British nuclear weapons as the ultimate insurance policy. When considering our security, for decades to come, it might seem reasonable to have an insurance policy against an uncertain future. However, there is a great danger in that concept, for if policy is based not on what potential adversaries have, but upon what they might obtain in the worst-case analysis at some time in the future, that undermines the whole basis of multilateral disarmament and non-proliferation, and is a recipe for arms-racing. There is also a danger in using unpredictability as grounds for irrationality. Probable risks should be balanced against very remote ones. Most people do not insure their house against comet strikes.

3.13 The relative risks of the more improbable future direct threats to the UK must be balanced against the dangers of a world in which there is widespread nuclear proliferation.

4. Non-proliferation

4.1 As stated in ORG’s written submission to the Committee’s first inquiry, though the non-proliferation regime has been remarkably successful, there are now real fears of breakdown. The UN Secretary General’s High Level Panel and Kofi Annan warned of the risk of a “cascade of proliferation”. Subsequently the 2005 Review Conference of the Nuclear Non-Proliferation Treaty and the UN summit failed to reach any agreements of substance in this area. The Conference on Disarmament in Geneva has been gridlocked for years.

4.2 In significant speeches on non-proliferation last year, Shirley Williams [opening a debate in the Lords] and William Hague [in a lecture at the International Institute for Strategic Studies], expressed a similar sentiment: that so long after the end of the Cold War it was bizarre that our world still around 27,000 nuclear weapons, nearly half of them deployed and ready to fire. Baroness Williams went on to say, “We can move from being deployed to being used in a matter of seconds, that is the tiny thread on which the safety of the world hangs”. Where she hinted that the danger of a major nuclear exchange had not been removed, William Hague spoke movingly of the consequences of a single incident: “the detonation of a nuclear weapon—by accident or design—anywhere quite literally the fall out from such a calamity would be felt across the world”.

4.3 The White Paper [3–7] draws attention to some of the factors which could cause instability in this century, failed states harbouring terrorism, conflict over resources, population growth, climate change, dual use technology. It is surely correct that the combination of such destabilisation with nuclear proliferation could be very perilous.

4.4 There is the risk that material could be diverted from a state’s nuclear weapons programme—with or without the collusion of that state—to absolutist terrorists for ideological and/or commercial reasons. Given what happened with A Q Khan, this is a scenario which seems less utterly fanciful and more possible to contemplate than the scenario outlined at 3.11. If such terrorists then decided to target the UK, nuclear deterrence would probably be irrelevant [as discussed at 3.10 above].

4.5 More generally if there is instability in the coming century, then the more widespread nuclear proliferation is the greater probability that there will be a nuclear terrorist incident, localised nuclear war or even a major nuclear exchange, whether the UK was directly attacked or not, the “calamity would be felt across the world”.

4.6 The reality surely is that with the most likely nuclear catastrophes that could occur in the coming century, whether the UK individually possesses or does not possess nuclear weapons will have little or no direct effect on their probability. If we are to reduce the risk of disaster, the urgent need is globally to revive non-proliferation and take multilateral disarmament seriously.

4.7 In an editorial response to the White Paper, the International Herald Tribune [7 December 2006] expressed the wish that the UK Prime Minister would put this issue on the global agenda, in the way Britain had with poverty and climate change.

4.8 Nuclear calamity is one of the great threats of the coming decades, and even a “regional” nuclear war could undermine or outweigh any progress we made on reducing global warming or alleviating poverty.

4.9 In seeking urgent international discussion on non-proliferation and disarmament, the UK could cooperate with Commonwealth and EU partners and the various groupings of Non-Nuclear Weapons States.

4.10 Russia has an economic interest in agreeing deeper cuts in nuclear arsenals.
4.11 The present US administration has been as negative on arms control treaties, as it has on Kyoto. However, with such factors as the mid-term elections, and the departure of Bolton and Rumsfeld, the atmosphere may be starting to change. On 4 January 2007, four of the elder statesmen of US security policy, Henry Kissinger, Sam Nunn, William Perry and George Schulz issued a bipartisan appeal for the USA to take a lead in practical steps to revive multilateral nuclear disarmament. [See Appendix]

4.12 There are many other constructive proposals for progress, for instance in the House of Lords debate and speech by William Hague, and the suggestions of Dr ElBaradei and the Blix Commission.

4.13 By negotiating far deeper and more rapid cuts in their own nuclear arsenals, the original nuclear weapons states would improve their own safety, strengthen their position in persuading, say, neighbours of North Korea to stay non-nuclear, and help to unite the world community in putting pressure on the nuclear weapons states outside the NPT and potential proliferators.

4.14 Rather than rushing prematurely into a decision on replacing Trident, the UK should be concentrating on urgent diplomatic initiatives to revive nuclear non-proliferation and multilateral disarmament.

5. CONCLUSIONS

5.1 There is no need to rush into a binding decision on replacing the Trident system at this time. Binding major financial commitments would be imprudent.

5.2 Proper time should be taken to debate the post Cold War security environment, in particular assessing the relative probabilities of threats which it is suggested UK nuclear weapons could deter, and threats which could occur if the non-proliferation regime breaks down.

5.3 The UK should be seeking urgently to encourage more rapid progress on non-proliferation and multilateral nuclear disarmament. The UK would have more credibility and flexibility in such negotiations if it had deferred long-term decisions on its nuclear weapons.

15 January 2007

Memorandum from Religious Society of Friends (Quakers)

1. INTRODUCTION

1.1 The Religious Society of Friends in Britain is a religious denomination with 16,000 members in 470 worshipping communities. We are committed to working for peaceful and effective responses to violence and social injustice.

1.2 We welcome the opportunity of submitting evidence to the Defence Select Committee on the Future of Trident but are concerned at the lack of time available for preparing a submission on an issue of such gravity. A call for evidence, allowing less than a month for preparation, especially when coinciding with the Christmas recess, provides inadequate time for the “comprehensive analysis” of the issues that responsible Government requires. Such haste seems unwarranted in the context of weapons that “will start to leave service in the early 2020s.”

1.3 The position of the Religious Society of Friends on issues of peace and disarmament is well known. We are, however, realists. While we continue to work towards our vision of a peaceful world, we know the world will not be freed of weapons of war in any short period. We are aware that the UK government, supported by the majority of the population, will feel obliged to retain at least limited military forces for the foreseeable future.

1.4 We would advocate, however, that these forces should be strictly defensive, tailored essentially towards peace-keeping activities. The Religious Society of Friends does not believe that nuclear weapons can possibly be seen in this light. They cannot be regarded as a mere defensive deterrent because their maintenance implies at least a conditional willingness to use them. If it did not they would not be a deterrent.

1.5 Use of such weapons, even in extreme circumstances, would be so heavily disproportionate to anything less than actual nuclear attack on this country as to be unthinkable. Actual nuclear attack would be so devastating that retaliation in kind could serve no purpose and only compound the horror.

1.6 We affirm the comments of the Archbishop of Canterbury that “... these are still weapons that are intrinsically indiscriminate in their lethal effects, and their long-term impact on a whole physical environment would be horrendous.” We welcome and affirm the clear position of the Church and Society Council of the Church of Scotland that the UK should relinquish its nuclear weapons.

1.7 We do not consider that the White Paper amounts to “a careful review of all the issues and options” that is referred to in its introduction. We ask the Government to learn from the defects of Parliamentary accountability in relation to the Chevaline programme and to provide for rigorous, transparent and accountable public debate.
1.8 We urge the Government, MPs and members of the electorate to which the government is accountable, to respond to the grave ethical questions that Dr Williams has raised regarding the morality, legality, and the strategic requirement for nuclear weapons. We hope that the Defence Select Committee will require the Secretary of State for Defence to respond to these questions in detail.

2. **Morality**

2.1 The Religious Society of Friends (Quakers) has a long history of seeking peaceful solutions to intractable political problems. We are committed to an understanding of security that recognises the inherent, absolute worth of every person. Our commitment to disarmament is rooted in a Christian understanding of hope that is incompatible with a willingness to use weapons of mass destruction. We are unequivocally opposed to the possession of nuclear weapons and cannot envisage any context in which the use of nuclear weapons could be justified. We unite with the increasing concern felt among the Churches regarding Britain’s maintenance of a nuclear weapons system. We note the clear position of the Church of Scotland in opposition to Trident and note that many who had previously supported a concept of deterrence now no longer consider that the arguments are sufficient to justify the UK’s maintenance of nuclear weapons.

3. **Legality**

3.1 The Non Proliferation Treaty, to which the UK is a signatory, essentially requires that nuclear weapons states should take steps towards disarmament in return for those states that do no have nuclear weapons undertaking not to develop them. Article VI includes the provision that “Parties to the Treaty undertake to pursue negotiations in good faith on effective measures to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a Treaty on general and complete disarmament under strict and effective control.” We consider that the replacement of Trident is incompatible with these obligations. A replacement programme sends the unedifying message that such weapons systems are morally acceptable. It would encourage other States to develop these weapons systems and undermine a rules” based system that is at the heart of the international rule of law. We ask the Secretary of State to address both the questions of whether its programme is in breach of the letter and spirit of NPT obligations and the following specific concerns:

(i) Nuclear weapons could never be used within the *jus in bellum* requirements of necessity and proportionality.

(ii) The Government has failed to specify scenarios in which the use of nuclear weapons could comply with International Humanitarian Law prohibitions on indiscriminate attacks.

(iii) Article VI is a pivotal provision of the Non Proliferation Treaty such that a breach of the provision would amount to a breach of the Treaty. Any broadening of the scope of deterrence policy would amount to a breach of Article VI and consequently of the Treaty itself. The Government proposes the following steps to broaden deterrence policy: deterrence against non-nuclear attack; use as an insurance system against unspecified future threats; enhancement of targeting policy. The Government proposals would consequently breach the Non Proliferation Treaty.

4. **Strategic Requirement**

We note that the White Paper does not consider the impact that renewing nuclear weapons could have on nuclear proliferation. A decision to enhance nuclear weapons would, in our opinion, undermine the UK’s opposition to access to nuclear weapons by other states. We note also that the White Paper does not address the issue of proportionality and necessity. The White Paper does not contain an adequate analysis and assessment of what the Government considers are current threats requiring the maintenance of a nuclear weapons system. It is the responsibility of a democratic Government to respond to the arguments and views of those with whom it disagrees. The essence of the Government case for maintaining nuclear weapons appears to be that “on our current analysis, we cannot rule out the risk either that a major direct threat to the UK’s vital interest will re-emerge or that new states will emerge that possess a more limited nuclear capability, but one that could pose a grave threat to our vital interests.” An insurance system against unspecified threats does not amount to a compelling case for “a strategic requirement,” particularly when the UK’s possession of nuclear weapons would only compound such uncertainty. We unite with the submission of the Baptist, Methodist and United Reformed Church that the logic supporting the use of nuclear weapons to insure against future threats would seem to lead us inevitably down the road to nuclear proliferation.
5. Economic

We consider it scandalous that while resources can be found for a nuclear weapons’ system costing tens of billions of pounds the Government is still not able to meet the UN target of spending 0.7% of GNP on international development. A small fraction of the resources needed to maintain weapons of mass destruction could transform the lives of millions in the developing world and help to build long-term sustainable security. Resources in the UK could be spent on hospitals, schools and creating economic opportunities for the young and deprived. Within armed forces expenditure, the resources spent on nuclear weapons could be used to develop armed forces suitable for a peace-keeping role.

6. Conclusion

We consider that the decision to replace the Trident Nuclear Weapons system is wrong in principle and that the process of decision-making has been flawed. We urge the Defence Select Committee to ensure that the decision to renew Trident is reconsidered in a calm and thoughtful environment that engages with the ethical issues raised by the full spectrum of civil society, Churches and faith communities. The White Paper should be the starting point for a wide ranging public debate on our future security needs and should not be used as a means of closing down political debate.

15 January 2007

MEMORANDUM FROM MEDACT

MEDACT is a UK charity of health professionals concerned with the health effects of nuclear weapons, conflict, poverty and the environment. It is the UK affiliate of International Physicians for the Prevention of Nuclear War (IPPNW: Nobel Peace Prize 1985). Medact welcomes this opportunity to submit evidence to the House of Commons Defence Committee on the White Paper on the Future of the UK’s Nuclear Deterrent.

1. Our evidence addresses the Government’s views as expressed in the White Paper in detail on pp 2–8. In summary we make the following points:

(a) The UK’s possession of nuclear weapons—far from ensuring national security—contributes to a more unstable international security environment.

(b) Nuclear weapons are recognised to be the most deadly and devastating weapons of mass destruction (WMD). They cause massive physical and social destruction with catastrophic consequences for health, making an effective medical response impossible.

(c) The nature of nuclear threats has changed and deterrence as outlined in the White Paper will not be able to avert the new dangers.

(d) Further proliferation will greatly increase the risk of nuclear accident, inadvertent use, acquisition opportunities for terrorists and other non-state actors, and the possibility of a nuclear exchange.

(e) The indiscriminate nature of a nuclear weapon—whatever the yield—means that it cannot conform to international humanitarian law (IHL) and this has in fact been recognised in legal judgements at the highest level.

(f) That the present tentative plans to reduce the UK arsenal in the absence of any ongoing nuclear disarmament discussions, concurrently with a stated intent to carry out new nuclear procurement, does in fact put the UK in breach of the Nuclear Non-Proliferation Treaty (NPT).

THE ROLE OF NUCLEAR DETERRENCE IN THE 21ST CENTURY

2. Nuclear weapons are recognised to be the most deadly and devastating weapons of mass destruction, distinct from conventional and even other WMD in terms of their destructive power and long-term effects. The Government advocates the continued possession of nuclear weapons as an insurance policy against the possibility that other states will develop them. However continued possession by the Nuclear Weapons States (NWS) is likely to have the opposite effect.

3. It is widely accepted that in the international and intrastate conflicts of the second half of the 20th century there was no relevant role for nuclear weapons. Even during the Cold War, the fact that they were nuclear powers did not enable the US or Russia to gain their objectives in Vietnam or Afghanistan respectively. Nuclear developments in North Korea and Iran and revelations of the activities of Dr A.Q. Khan (Pakistan) have exacerbated concerns about the attraction of nuclear weapons for weak leaders and non-state actors. The continued retention, maintenance and manufacture of nuclear weapons by the NWS will not deter these developments but will on the contrary add to the risks of and impetus towards proliferation. If the NWS continue to proclaim the value and indispensability of their nuclear deterrents in the 21st century, they increase the incentive for other nations to acquire nuclear weapons.
4. The concept of deterrence depends on the perceptions of those involved, and it can only function if there is some level of shared values between the protagonists. Further, the parties involved must be able to communicate, comprehend and make similar rational calculations. The complexity of communications and interactions on which deterrence would have to rely would massively increase the risks of its failure. Paradoxically, the position may be reached where the possession of nuclear weapons renders a nation more likely to be the target of a nuclear attack. [1,2]

5. The nature of nuclear threats has changed and the main nuclear dangers include:
   (a) Proliferation to states with aggressive intent.
   (b) Regional rivalries between two nuclear armed states.
   (c) Weak states or non-state actors gaining access to fissile material to make a nuclear weapon or dirty bomb.
   (d) Adoption of nuclear deterrence doctrines by governments as a political strategy for domestic control and to ward off outside interventions.
   (e) Further development of doctrines of nuclear pre-emption and retaliation.
   (f) The use by a NWS of a nuclear weapon against a Non-Nuclear Weapon State (NNWS) with the rationale of protecting its “vital interests”.

6. These threats are inter-related and compounded by the continued possession of nuclear arsenals by a small number of states. Clearly, the risk that nuclear weapons will be used rises the more they spread around the world. This is especially relevant when proliferation occurs in unstable regions or if the weapons come into the possession of non-state actors. The risks are also increased when nuclear weapons are deployed on high alert or in ways that invite pre-emptive attack and exacerbate the risk of accidental use.

7. There appears to be a trend towards slow nuclear proliferation, with states gradually crossing the nuclear threshold one by one. Western governments, especially the NWS, take the optimistic view that slow proliferation can be contained and that most non-nuclear states will stay non-nuclear within the terms of the NPT. However the credibility of the NPT is being undermined not only by the statements and actions of the leaders of North Korea and Iran but more importantly by the actions of the current Administration of the United States and by the failure of a number of the NPT parties, including the NWS, to fulfil their obligations in good faith. We believe that the decision by the UK Government to replace Trident in any form could well hasten such proliferation.

8. If the non-proliferation regime is allowed to erode further there is a risk that global restraints will crash, causing a cascade of proliferation with perhaps 30 countries becoming nuclear capable within 10 years. Such an increased level of proliferation would decrease security and stability worldwide and greatly increase the risks of nuclear accident, inadvertent use, acquisition opportunities for terrorists and other non-state actors and the possibility of a nuclear exchange. [3,4]

9. The US-driven shift from norm-based non-proliferation to counter-proliferation has weakened some of the essential infrastructure that the international community needs for combating nuclear proliferation.

10. By deciding not to replace Trident and then using its considerable influence to strengthen international law and exert pressure for full implementation of resolutions and treaties, UK could do much to restore and reinvigorate the international non-proliferation regime. In 1989 the then President of the USSR, Mikhail Gorbachev, by instituting a unilateral moratorium on nuclear testing, started a cascade of international disarmament measures. The UK could act similarly and, by taking the decision not to renew the Trident missile system, act as a catalyst for the international community to commence global nuclear disarmament.

THE LEGAL AND INTERNATIONAL TREATY IMPLICATIONS OF THE GOVERNMENT’S DECISION TO RETAIN AND RENEW TRIDENT

11. Any use of nuclear weapons creates a highly radioactive fireball which generates an intense blast wave, a heat flash, “prompt” radiation and radioactive fallout. Any use is therefore likely to cause “superfluous injury and unnecessary suffering” to targeted combatants and to expose non-combatants (civilians of an attacked state or of neutrals) to the risk of radiation sickness, to leukaemia and other cancers for decades to come, and perhaps genetic change leading to harmful mutations in succeeding generations. For such reasons, the International Court of Justice (ICJ), in Paragraph 105 (2) E of its Advisory Opinion, [5] stated that: “the threat or use of nuclear weapons would generally be contrary to the rules of international law applicable in armed conflict, and in particular the principles and rules of international humanitarian law.” (Earlier, in para. 47, it stated that if the use of any weapon is illegal under IHL, the threat of such use is also illegal.) The Court could not “... conclude definitively whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self-defence, in which the very survival of a State would be at stake.” In his Declaration, the then President of the Court, Judge Bedjaoui, emphasised however that this possible reservation did not constitute an authorisation of use, and that any such use would still have to accord with IHL in respect of indiscriminate effects.
12. The White Paper justifies the replacement of Trident on the need to deter possible future nuclear threats to the UK. We would point out that “deterrence” in this sense, even if spun under such language as our nuclear arms being “purely political weapons”, constitutes threat of use. We further suggest that it is virtually impossible to imagine a use of Trident or a successor that would be legal within the constraints laid down by the ICJ.

Replacing Trident Would Undermine the Nuclear Non-Proliferation Treaty

13. The NPT [6] was opened for signature in 1968 and entered into force in 1970. The UK is a Depositary State for the treaty, which defines a nuclear weapon state as one which exploded a nuclear device before 1 January 1967; but, contrary to statements by some Government ministers, there is no implication that such a state is in any way authorised to continue to possess nuclear weapons.

14. Indeed, under Article VI of the treaty, all States Parties undertake “to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament.” In Para. 105 (2) F of its Advisory Opinion [5], the ICJ interpreted Article VI as an obligation to pursue such negotiations and bring them to a conclusion [our italics].

15. In the Final Document of the 2000 Review Conference of the NPT, States Parties, including the UK, accepted a 13-point list of “Principles and Objectives for Nuclear Non-Proliferation and Disarmament” [7]. Two of these which are particularly relevant to Trident and its possible replacement read as follows:

“(6) An unequivocal undertaking by the nuclear weapon states to accomplish the total elimination of their nuclear arsenals, leading to nuclear disarmament to which all States Parties are committed under Article VI.” And:

“(8) Further efforts by the nuclear-weapons states to reduce their nuclear weapons unilaterally.”

16. The White Paper only briefly discusses the legality issue and the NPT. The possibility of reducing the submarines to three and warheads to 160 might be claimed to be in accord with Principle (8) above, but is only tentative. The White Paper implies that Trident replacement will be in order to maintain nuclear capability until 2050. At present no negotiations towards nuclear disarmament are taking place, and it is hard to see how the UK could participate in any in good faith having just committed itself to a procurement programme costing £20 billion or so.

17. Two reports on the legality of Trident replacement and its possible use in relation to the NPT by specialists in international law have recently been published [8,9]. Both reports suggest that the Government’s position, as subsequently outlined in the White Paper, is faulty. They advise that any use (and therefore also threat of use—see our para. 11 above), and, by implication, the UK Government’s retention and replacement of Trident, is a material breach of Article VI of the NPT.

Conclusion

18. In view of the above arguments, we conclude that the Government must carefully consider the serious concerns regarding the legality of the UK’s strategy on use of nuclear weapons; whether the use of Trident would be compatible with international humanitarian law, and the legality of replacing or upgrading the present system. We also believe the Government would be well advised to look to other possible ways of maintaining UK security into the second half of this century. We therefore make three recommendations:

Recommendation 1

19. Both in its submission to the 2005 NPT Review Conference, and again in the White Paper, the Government emphasises its commitment to the NPT. Internationally, the treaty is regarded as the keystone of the nuclear disarmament and non-proliferation process, and it is vital that our policies should not in any way undermine it. Yet, as noted, expert opinion is that replacing Trident would do just this. We therefore recommend that, as a key part of its deliberations upon the appropriateness of the replacement of Trident, the Committee should invite the authors of the legal opinions cited [8,9], to appear before it, and for the Attorney-General or his representative to respond in detail to their critique.

Recommendation 2

20. We recommend that the UK Government gives consideration to the concept of sustainable non-proliferation. It is essential to assess the balance between the assured dangers of widespread proliferation and the difficulties and uncertainties of global nuclear disarmament. Article VI of the NPT made disarmament an indispensable part of the non-proliferation equation. However, it is unlikely that any government would consider renouncing the option of such a powerful weapon if it thought that other governments would keep them indefinitely.
21. The alternative to prohibiting and eliminating nuclear weapons is not the status quo in which the UK remains one of the privileged “haves”, but a planned integrated time-bound verifiable and policed approach to joint measures for disarmament and non-proliferation. Common security is best promoted when disarmament is integrated with non-proliferation responsibilities. We therefore suggest the following integrated approach to disarmament and non-proliferation:

(a) Reinforce international laws and norms of the regimes with more effective policing and measures for compliance, enforcement and verification.

(b) Implement further deep cuts in nuclear arsenals.

(c) Legislate to make any use of nuclear weapons illegal in the form of a Nuclear Weapons Convention (as with Chemical and Biological Weapons Conventions).

(d) Require each NW possessing nation to develop a time-tied coherent plan to implement their disarmament obligations under the NPT.

(e) Legislate to make the production of plutonium and highly enriched uranium (HEU) either for weapons purposes or for civil nuclear reactors illegal.

(f) Freeze the financial resources of those who constitute a nuclear threat.

(g) Address perceptions of insecurity such as regional conflict, injustice and discrimination, especially with regard to access to education and resources.

(h) Research the causes of terrorism and act on this to reduce the likelihood of people resorting to this strategy. (10)

RECOMMENDATION 3

22. We urge the Committee to conclude, and advise HMG accordingly, that the expenditure of some £20 billion in procurement and a further £50 billion in running costs on a weapons system which could never be used in accordance with IHL would be unjustified.

REFERENCES


5. Legality of the Threat or Use of Nuclear Weapons. ICJ Reports 1996.


12 January 2007
Memorandum from Peacerights

INTRODUCTION AND SUMMARY OF ADVICE

1. We are asked to advise Peacerights on the legality under international law of the United Kingdom’s actions with respect to the Trident nuclear missile system. The question on which our advice is sought is whether the UK is in breach of international law through maintenance of the Trident system or the replacement of that system by one with a similar yield. More specifically advice is sought on (i) whether Trident or a likely replacement to Trident breaches customary international law and (ii) whether the replacement of Trident would breach the Non-Proliferation Treaty 1967 (NPT), article VI.

2. In our opinion, for the reasons which are set out below:

   (1) The use of the Trident system would breach customary international law, in particular because it would infringe the “intransgressible” requirement that a distinction must be drawn between combatants and non-combatants.

   (2) The replacement of Trident is likely to constitute a breach of article VI of the NPT.

   (3) Such a breach would be a material breach of that treaty.

THE UK’S OBLIGATIONS UNDER CUSTOMARY INTERNATIONAL LAW

3. Since there is no immediate question of the use of Trident the question is whether its possession or replacement is contrary to customary international law. Possession of Trident has been justified by the government in the following terms:

   “The justification of Trident is as an instrument of deterrence with the possibility of its use only in the ‘extreme circumstances of self-defence.” (Geoff Hoon MP, written answer, 4 April 2005).

4. The language of “extreme circumstances of self-defence” is taken from the Legality of the Threat or Use of Nuclear Weapons advisory opinion of the International Court of Justice (ICJ) where the Court concluded by the President’s casting vote that:

   “in view of the current state of international law, and of the elements of fact at its disposal, the Court cannot conclude definitively whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self-defence, in which the very survival of a State would be at stake;”’(1996 ICJ Reports, Dispositif, para 105 2 E).

5. The Court did not determine that the threat or use of such weapons would be lawful or unlawful but said that it could not definitively rule on the subject. President Bedjaoui, who made the casting vote, explained that para 105 2 E of the dispositif must not “in any way be interpreted as leaving the way open to the recognition of the lawfulness of the threat or use of nuclear weapons.”(Declaration of President Bedjaoui, 1996 ICJ Reports, para. 11).

6. The Court emphasised that the dispositif must not be read alone for the Court’s reply to the question put to it “rests on the totality of the legal grounds set forth by the Court . . . each of which is to be read in the light of the others.” (1996 ICJ Reports, par 104).

7. Included within the legal grounds analysed by the ICJ was the affirmation that for a particular instance of the threat or use of force to be lawful it must not be contrary to either the laws regulating the lawfulness of recourse to force (jus ad bellum) or the international laws of war (jus in bello). It stated that: “a use of force that is proportionate under the law of self-defence, must, in order to be lawful also meet the requirements of the law applicable in armed conflict which comprise in particular the principles and rules of humanitarian law.” (1996 ICJ Reports para 42, see also paras 39, 91 and dispositif, paras 2 C and D).

8. The UK did not challenge this legal principle and stated before the Court that:

   “The legality of the use of nuclear weapons must therefore be assessed in the light of the applicable principles of international law regarding the use of force and conduct of hostilities, as is the case with other methods and means of warfare.” (cited 1996 ICJ Reports, para 91).

UK OBLIGATIONS UNDER THE JUS AD BELLUM

9. UN Charter, article 51 provides that self defence is an exception to the prohibition of the use of force contained in the UN Charter, article 2 (4). It is also an exception under customary international law. The International Law Commission (ILC) Articles on Responsibility of States for Internationally Wrongful Acts (GA Res. 56/83, 12 December 2001), article 21 reiterates that: “The wrongfulness of an act of a State is precluded if the act constitutes a lawful measure of self-defence in conformity with the Charter of the United Nations.”

10. In the Legality of the Threat or Use of Nuclear Weapons the ICJ clarified some aspects of the application of the prohibition of the use of force and self-defence to the use or threat of nuclear weapons.
11. First, the Court coupled the threat of force with its use. The Court stated that: “Whether a signalled intention to use force if certain events occur is or is not a “threat” within Article 2, paragraph 4 of the Charter depends upon various factors. If the envisaged use of force is itself unlawful, the stated readiness to use it would be a threat prohibited under Article 2, paragraph 4 no State, whether or not it defended the policy of deterrence suggested to the Court that it would be lawful to threaten force if the use of force contemplated would be illegal.” (1996 ICJ Reports, para 47).

12. Thus where a use of force is prohibited under UN Charter, article 2(4), a threat to use that same force is also prohibited. If a use of force allegedly in self-defence would violate the principles of necessity and proportionality so too would the threat of use of such force. “In any of these circumstances the use of force, and the threat to use it, would be unlawful under the law of the Charter.” (1996 ICJ Reports para 48).

13. Second, this same assertion makes it clear that any use of nuclear weapons in lawful self-defence is subject to the conditions of necessity and proportionality. “In plain English, the conditions of necessity and proportionality require that the use of nuclear weapons in self-defence could be envisaged only to meet an attack of comparable gravity that could not be neutralized by any other means.” (Luigi Condorelli, “Nuclear weapons: a weighty matter for the International Court of Justice” 316 International Review of the Red Cross (1997) 9).

14. These requirements of necessity and proportionality have been confirmed by the ICJ to constitute customary international law: “For example it [the UN Charter] does not contain any specific rule whereby self-defence would warrant only measures which are proportional to the armed attack and necessary to respond to it, a rule well established in customary international law.” (Military and Paramilitary Activities in and against Nicaragua (Nicaragua v. US) (Merits), 1986 ICJ Reports, para.176; Oil Platforms (Islamic Republic of Iran v US) (Merits), 2003 ICJ Reports, para 76; Legality of the Threat or Use of Nuclear Weapons 1996 ICJ Reports, para 41).

15. Necessity is a justification precluding the unlawfulness of a wrongful act in exceptional circumstances. Under the International Law Commission (ILC), Articles on Responsibility of States for Internationally Wrongful Acts (GA Res 56/83, 12 December 2001), article 25, necessity may not be invoked unless the act: (a) is the only means for the State to safeguard an essential interest against a grave and imminent peril; and (b) does not seriously impair an essential interest of the state or states towards which the obligation exists, or of the international community as a whole.

16. This article was in draft form at the time of the ICJ decision in the Gabcikovo-Nagymaros case. Nevertheless the ICJ relied upon it, reiterated its negative wording and its emphasis on the exceptional nature of the plea. It affirmed the basic principles: the act contrary to an international obligation must have been occasioned by an essential interest of the State which is the author of the act; the interest must have been threatened by a “grave and imminent” peril; the act being challenged must have been the only means of safeguarding the interest; the act must not have seriously impaired an essential interest of the state towards which the act is directed; and the state the author of the act must not have “contributed to the occurrence of the state of necessity.” The ICJ also stated that these conditions reflect customary international law. (Gabcikovo-Nagymaros Project (Hungary/Slovakia) 1997 ICJ Reports 7, paras 51–2).

17. The assessment of necessity must be made at the time the decision is made to commit the otherwise unlawful act. In the Legality of Nuclear Weapons the Court did not elaborate on the requirement of necessity, perhaps because of the abstract nature of the question put to it. In the Oil Platforms case the Court construed necessity strictly and with specific application to the facts in question. It determined that US attacks on the oil platforms could not be justified as acts of self-defence and also were not necessary to that state’s security interests under the Treaty of Amity, 1955, article XX(1)(d).

18. The assessment of proportionality is ongoing throughout any use of force. It requires determining the amount of force that can be legitimately used to achieve the goal. The ICJ also assessed the requirement of proportionality strictly in the Oil Platforms case. In determining the proportionality of the US attacks the Court held that it could not “close its eyes to the scale of the whole operation, which involved inter alia the destruction of two Iranian frigates and a number of other naval vessels and aircraft.” (Oil Platforms (Islamic Republic of Iran v US) (Merits), 2003 ICJ Reports, para 77).

UK OBLIGATIONS UNDER INTERNATIONAL HUMANITARIAN LAW

19. In the Threat or Use of Nuclear Weapons the Court advised that: “It is undoubtedly because a great many rules of humanitarian law applicable in armed conflict are so fundamental to the respect of the human person and “elementary considerations of humanity” as the Court put it in its Judgment of 9 April 1949 in the Corfu Channel case (ICJ Reports 1949, p 22), that the Hague and Geneva Conventions have enjoyed a broad accession. Further these fundamental rules are to be observed by all States whether or not they have ratified the conventions that contain them, because they constitute intransgressible principles of international customary law.” (1996 ICJ Reports, para 79).
20. The Court affirmed this paragraph in the advisory opinion on the *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory* (2004) ICJ Reports, para 157. The expression “intransgressible” is not part of the usual vocabulary of customary international law and the ICJ appears to be bestowing these principles with some especially weighty status. Vincent Chetail argues that: “the Court intended to emphasize the importance of humanitarian norms for international law and order as a whole and the particularity of such norms in comparison with the other ordinary customary rules of international law.” (Vincent Chetail, “The Contribution of the International Court of Justice to International Humanitarian Law”, 850 International Review of the Red Cross (2003) 235, 251).

21. Condorelli argues that “the solemn tone of the phrase, and its wording, show that the Court intended to declare something much more incisive and significant, doubtless in order to bring the fundamental rules so described closer to jus cogens”. Condorelli continues that: “In other words, the circumstances eliminating unlawfulness that apply in other sectors of the international legal order (such as the victim's consent, self-defence, counter-measures or a state of necessity) cannot be invoked in this particular case.” (Luigi Condorelli, “Nuclear weapons: a weighty matter for the International Court of Justice” 316 International Review of the Red Cross (1997) 9). Professor Cassesse has said in this context that “intransgressible” means “peremptory in nature as the ICJ held in Threat or Use of Nuclear Weapons (at para 79)”: International Law (2nd ed 2005) 206.

22. Clearly the Court regarded the relevant principles of international humanitarian law as of extreme significance. President Bedjaoui stated from this that a use of force even exercised in the extreme circumstances in which the survival of a state is in question cannot allow a state to exonerate itself from compliance with these intransgressible norms of international humanitarian law. (1996 ICJ Reports, Declaration Judge Bedjaoui, para 22).

23. Further in the *Wall* case the Court affirmed the greater authority of these rules by noting that they “incorporate obligations which are essentially of an erga omnes character.” *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory* 2004 ICJ Reports, para 157). Obligations owed erga omnes are the “concern of all states” and all states have a “legal interest in their protection.” (Barcelona Traction, Light and Power Company, Ltd, Second Phase, 1970 ICJ Reports para 33).

24. The particular rules that are bestowed with this intransgressible nature are:
- the principle of distinction between combatants and non-combatants (civilians);
- prohibition of weapons that cause superfluous injury or unnecessary suffering; and
- the residual principle of humanity from the Martens Clause. (1996 ICJ Reports, para 78).

25. The principle of distinction between combatants and civilians is central to certain international crimes within the jurisdiction of the Rome Statute of the International Criminal Court. Under the Rome Statute of the International Criminal Court, 1998 article 8(2)(b)(iv): “Intentionally launching an attack in the knowledge that such attack will cause incidental loss of life or injury to civilians or damage to civilian objects or widespread, long-term and severe damage to the natural environment which would be clearly excessive in relation to the concrete and direct overall military advantage anticipated” is a serious violation of the laws and customs applicable in international armed conflict. So too is: “Attacking or bounding, by whatever means, towns, villages, dwellings or buildings which are undefended and which are not military objectives;” (Rome Statute, article 8(2)(b)(v)).

**Legality of the Possession or Replacement of Trident under the Jus Ad Bellum and Jus In Bello**

26. The Court’s inability to give a definitive answer to the question put to it in the *Threat or Use of Nuclear Weapons* was based both on its assessment of the current state of international law and on the “elements of fact at its disposal.” Its determination was made in the abstract without reference to a specific incident of maintenance or replacement of a specific weapons system in the hands of any particular state. Even then, referring to the “principles and rules of law applicable in armed conflict” it found that: “In view of the unique characteristics of nuclear weapons, . . . the use of such weapons in fact seems scarcely reconcilable with respect for such requirements.” 1996 ICJ Reports para 95).

27. To determine the legality of the possession or replacement of a particular system requires contextual analysis in any particular case. Thus the possession or replacement of Trident must be assessed against the two bodies of treaty and customary law (*jus ad bellum and jus in bello*) and in light of the factual circumstances of its capabilities and the context of its possession. The “intransgressible” principles described above have been distilled into three core questions that need to be asked in making a contextual determination such as that with respect to Trident:

1. “Would the use of a nuclear weapon in the particular circumstances inflict unnecessary suffering upon combatants?

2. Would the use of a nuclear weapon in the particular circumstances be directed against civilians, or indiscriminate, or even if directed against a military target, be likely to cause disproportionate civilian casualties?
3. Would the use of a nuclear weapon in the particular circumstances be likely to cause disproportionate harmful effects to a neutral state?” (C Greenwood, “Jus ad bellum and Jus in Bello in the Nuclear Weapons Advisory Opinion”, in L Boisson de Chazournes and P Sands, eds), International Law, the International Court of Justice and Nuclear Weapons, 1999, 247, 261, emphasis in the original).

28. The UK Trident system currently consists of four Vanguard class nuclear powered submarines each carrying up to 16 US Trident II D 5 missiles. There are around three nuclear warheads mounted on every missile making about 48 warheads carried on each submarine. At least one is on patrol at all times. Trident nuclear warheads are 100 to 120 kilotons each. Even one kiloton, a “nuclear mini-bomb” “would flatten all buildings within half a kilometre with up to 50% fatalities up to 1 kilometre”. (Lord Murray (Former Lord Advocate of Scotland), “Nuclear Weapons and the Law”, 1998, available at http://wcp.gn.apc.org/ newmurray.html). “The fireball of a detonated trident warhead is said to have a diameter of half a mile across while the heat and blast extend miles further.” “A low-yield Trident warhead would reduce a whole town to rubble.” (Ibid). Each warhead can be aimed at a different target and each has at least eight times the explosive power of the bomb which was dropped on Hiroshima on 6 August 1945.

29. The first Trident submarine entered service in 1994 with the others coming into service progressively over the next five years. Its life span is approximately 30 years and so it could remain operational until approximately 2025. In light of the lead time for a replacement for the current Trident system to become operational (about 14 years) a decision is now due. The government has indicated that a decision about replacement will be made during the current Parliament. (Bundle Tab 8). The Defence Secretary, John Reid MP, has said that the options are to replace Trident with another submarine-launched missile system, or a ship or air-launched system, or even a land-based system.

30. In light of the blast, heat and radio-active effects of a detonation of a Trident warhead, in our view, it is impossible to envisage how the intransgressible requirement of the principle of distinction between combatants and non-combatants or the requirement of proportionality in the jus ad bellum could be met. The use of a Trident warhead would be inherently indiscriminate. Even if aimed at a military target it cannot distinguish between that and civilians within its range. Radioactive effects are not contained by time or space. Accordingly the use of a single Trident warhead in any circumstance, whether a first or second use and whether targeted against civilian populations or military objectives would inevitably be indiscriminate in effect, inflicting unnecessary civilian suffering and disproportionate civilian casualties and disproportionate harmful effects to a neutral state.

31. In the Threat or Use of Nuclear Weapons the Court stated that: “If the envisaged use of force is itself unlawful, the stated readiness to use it would be a threat prohibited under Article 2, paragraph 4.” The former Defence Secretary, Mr Hoon, has stated that “in the right conditions we would be willing to use our nuclear weapons.” (Bundle, Tab 6, para 237). In the later 4 April 2005 statement he referred to “extreme circumstances of self-defence” although he omitted the further qualification of the ICJ: “in which the very survival of a State would be at stake.” The former statement was made in the context of questions about a UK response to the use of weapons of mass destruction against our forces in the field. This assertion was repeated on television where Mr Hoon stated that the government “reserved the right to use nuclear weapons if Britain or British troops were threatened by chemical or biological weapons.” (Bundle, Tab 7). In our view, threats to British troops in the field even with weapons of mass destruction could not be said to threaten the survival of the state and thus would not come even within the ICJ’s ambivalent dispositif in the Threat or Use of Nuclear Weapons.

32. Mr Hoon has stated that the government must make clear its willingness to use nuclear weapons: “for that to be a deterrent, a British government must be able to express their view that ultimately and in conditions of extreme self-defence, nuclear weapons would have to be used.” And: “It is therefore important to point out that the Government have nuclear weapons available to them, and that—in certain specified conditions to which I have referred—we would be prepared to use them.” (Hansard, 29 April 2002, Bundle Tab 6).

33. As he was then Secretary of State for Defence Mr Hoon’s words can be taken to be the government’s position. In the Nuclear Tests cases the ICJ stated that the statements of the President of France “and members of the French Government acting under his authority up to the last statement made by the Minister of Defence . . . constitute a whole. Thus in whatever form these statements were expressed, they must be held to constitute an engagement of the State, having regard to their intention and to the circumstances in which they were made.” (Nuclear Tests cases (Australia v France; New Zealand v France) 1974 ICJ Reports 253;457, para 49). It is clear that his various statements represent the UK position. They were repeated, recorded in Hansard and expressed on television. He explicitly stated that he was expressing the position of the UK government.

34. Since it is impossible to envisage how the intransgressible requirement of the principle of distinction between combatants and non-combatants or the requirement of proportionality in the jus ad bellum could be met by the use of Trident, even if the strict requirements of necessity for self defence were met, it is hard to see how its use could ever conform with the requirements of international law relating to the jus ad bellum or jus in bello.
35. As a footnote it is worth noting General Comment No 14 of the Human Rights Committee on the right to life. In the *Threat or Use of Nuclear Weapons* the Court considered that whether a particular loss of life through the use of a certain weapon in warfare violated the right to life under human rights law would fall to be determined by reference to the law applicable in armed conflict, not the human rights provisions. Nevertheless the words of the Human Rights Committee are strong:

“4. It is evident that the designing, testing, manufacture, possession and deployment of nuclear weapons are among the greatest threats to the right to life which confront mankind today. This threat is compounded by the danger that the actual use of such weapons may be brought about, not only in the event of war, but even through human or mechanical error or failure.

5. Furthermore, the very existence and gravity of this threat generates a climate of suspicion and fear between States, which is in itself antagonistic to the promotion of universal respect for and observance of human rights and fundamental freedoms in accordance with the Charter of the United Nations and the International Covenants on Human Rights.” (Human Rights General Comment, No 14, The Right to Life, 1984).

Conformity of the Possession or Replacement of Trident with the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), article VI

**UK Obligations Under the NPT, Article VI**

36. Regardless of the legality under customary international law of the possession or replacement of Trident the UK has entered into treaty obligations with respect to negotiation of disarmament. In particular the NPT, article VI states that:

“Each of the parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament and on a treaty on general and complete disarmament under strict and effective control.”

37. The importance of Article VI has been recognised by commentators. It has been called “the single most important provision of the treaty, however, from the standpoint of long-term success or failure of its goal of proliferation prevention”. (E. Firmage, “The Treaty on the Non-Proliferation of Nuclear Weapons”, 63 American Journal of International Law (1969) 711, 732).

38. It is necessary to determine the extent of UK obligations under this Article and whether actions to extend the life of Trident or to replace it with another system would be in accordance with it. At the 2005 Review Conference the UK Ambassador asserted that: “We abide by the undertakings we have given to non-proliferation, to the peaceful uses of nuclear energy and, under Article VI of the Treaty, to those on disarmament.” (Statement by Ambassador John Freeman, Head of the UK Delegation, to the Seventh Review Conference of the Treaty on the Non-Proliferation of Nuclear Weapons, May 2005, available at http://www.un.org/events/npt2005/statements/npt05unitedkingdom.pdf.) The UK thus accepts its obligations under the NPT, article VI so determination of whether it is in breach of those obligations requires:

(i) determination of the scope of those obligations through interpretation of Article VI in accordance with principles of treaty interpretation; and

(ii) determination of whether maintaining or seeking to replace Trident are in conformity with those obligations.

**The Vienna Convention on the Law of Treaties**

39. The principles relating to the law of treaties are largely codified in the Vienna Convention on the Law of Treaties, 1969, 1155 UNTS (VCLT). The United Kingdom is a party to the VCLT (ratified 25 June 1971), which came into force on 27 January 1980. The VCLT does not have retroactive effect (article 4) and therefore does not apply to the original NPT, 1967 which came into force on 5 March 1970.

40. However some provisions of the VCLT have been explicitly accepted by the ICJ as constituting customary international law, including those on material breach and interpretation. (Eg Legal Consequences for States of the Continued Presence of South Africa in Namibia (South West Africa) Notwithstanding Security Council 276 (1970) 1971 ICJ Rep 16, 47; Fisheries Jurisdiction Case (United Kingdom v Iceland) 1974 ICJ Rep 3, para 36; Gabcikovo-Nagymaros Project (Hungary/Slovakia) 1997 ICJ Reports para 4).
PRINCIPLES OF TREATY INTERPRETATION

41. The VCLT, articles 31–33 provide the basic principles of treaty interpretation that are widely accepted as constituting customary international law (Indonesia/Malaysia case, 2002 ICJ Reports 3, para 37; Libya/Chad case, 1994 ICJ Reports, 6, 21–2; Qatar/Bahrain case, 1995 ICJ Reports 6, 18). Interpretation of the NPT, article VI will therefore be in accordance with these articles.

42. VCLT, article 31 (1) provides that: “A treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose.”

43. There are two sets of materials that may be relevant to interpreting the terms of the NPT and its object and purpose: the initial negotiation history (travaux preparatoires) and the documents and resolutions of the subsequent Review Conferences. The two reflect very different moments in time. The former evidences the intentions of the original Treaty parties and reflects the cold war politics of the time while the latter reflect the ongoing concerns of all the parties to the Treaty, non-nuclear weapon states as well as nuclear weapon states.

44. The VCLT requires that the words of a treaty are interpreted in their context and in the light of its object and purpose. The NPT, article VIII (3), makes explicit that the purposes of the Treaty are to be found in the preamble (five yearly reviews must take place “with a view to assuring that the purposes of the preamble and the provisions of the treaty are being realised”). This brings the Preamble more firmly into the obligatory provisions of the Treaty.

45. The preamble of a treaty is in any case part of the treaty’s context for the purpose of interpretation. The VCLT, article 31(2) makes it clear that: “The context for the purpose of the interpretation of a treaty” includes “its preamble and annexes”. Further VCLT, article 31(3), specifies that: “There shall be taken into account, together with the context: (a) any subsequent agreement between the parties regarding the interpretation of the treaty or the application of its provisions; (b) any subsequent practice in the application of the treaty which establishes the agreement of the parties regarding its interpretation; . . . ” A Declaration of a Review Conference adopted by consensus would come within the wording of article 31(3)(a) and is thus an appropriate source of interpretation of the obligations of the NPT.

46. Reference to the use that can be made of a treaty’s travaux preparatoires (preparatory work) is made in VCLT, article 32. Article 32 states that: “Recourse may be had to supplementary means of interpretation, including the preparatory work of the treaty and the circumstances of its conclusion, in order to confirm the meaning resulting from the application of article 31, or to determine the meaning when the interpretation according to article 31: (a) leaves the meaning ambiguous or obscure; or (b) leads to a result which is manifestly absurd or unreasonable.”

47. Article 32 makes preparatory work relevant only as a secondary source of interpretation, to be referred to when there is ambiguity, or where the approach under article 31 leads to a manifestly absurd or unreasonable result. This is a lesser status than that accorded to the preamble and any subsequent agreement between the parties by article 31. This is confirmed by the heading given to each of the two articles. Article 31 is headed “General rule of interpretation” while article 32 is headed “Supplementary means of interpretation.”

48. Accordingly, if there is any disparity between them greater weight should be given to the Declarations of the Review Conference than to the preparatory work of the NPT in determining the scope of obligations under the Treaty text today.

NEGOTIATION HISTORY OF THE NPT

49. Turning first to the negotiation history, a commitment to disarmament was a major concern of non-nuclear weapon states. India, Brazil, Scandinavian states, Canada, the then UAR and Germany “brought strong pressure upon the Co-chairmen to obtain some statement within the treaty concerning nuclear disarmament.” (E Firmage, “The Treaty on the Non-Proliferation of Nuclear Weapons”, 63 American Journal of International Law (1969) 711, 733). The August 1967 draft included reference to “cessation of the arms race” only in its preamble. An earlier version of Article VI was brought within the body of the Revised Draft Treaty on Nonproliferation of Nuclear Weapons, 18 January 1968. Sweden in particular insisted on strengthening Article VI by broadening the commitment of the nuclear weapon states to seek disarmament agreements. In the General Assembly debate on the draft treaty further objections were made (for example by Brazil, India) to the lack of tangible commitment to nuclear disarmament by nuclear weapon states. Article VI was further revised before its inclusion in the adopted Treaty. (E. Firmage, “The Treaty on the Non-Proliferation of Nuclear Weapons”, 63 American Journal of International Law (1969) 711, 716–721).

50. This drafting history of Article VI is important as it shows the linkage between the commitment to non-proliferation and the obligations of all states to pursue negotiations towards nuclear disarmament. Article VI was an integral part of the NPT package, not just an “add-on”. Its importance to the objectives of the Treaty is indicated by the preamble, paras 8–12. These include the “intention to achieve at the earliest possible date the cessation of the nuclear arms race” and “to undertake effective measures in the direction of nuclear disarmament.”
NPT REVIEW CONFERENCE 2000

51. Turning to the Review Conferences it is clear that the commitment to disarmament remains strong. The Review Conferences take place in accordance with the terms of the NPT, article VIII (2) which provides for the holding of a Conference of Parties to the Treaty “to review the operation of this treaty with a view to assuring that the purposes of the Preamble and the provisions of the Treaty are being realised.” The provision for a Review Conference is separate from both the articles for amendment (article VIII (1)) and for extension of the Treaty (article X (2)). The objective of the Review Conference is to determine compliance with the purposes of the Treaty as expressed in the preamble and its provisions.

52. The Final Document of the Review Conference 2000 (NPT/CONF.2000/28 (Parts I and II) reiterated the importance of the commitment to disarmament in a number of its statements. In its Review of the operation of the Treaty the Conference noted that the overwhelming majority of states entered into their legally binding commitments not to acquire nuclear weapons “in the context, inter alia of the corresponding legally binding commitments by the nuclear weapon States to nuclear disarmament in accordance with the Treaty.” (Final Document of the Review Conference 2000, Part I, Articles I and II and first to third preambular paragraphs, para 2). Further the Conference reaffirmed that the “strict observance” of the provisions of the Treaty remains central to achieving the shared objectives of preventing under any circumstances, the further proliferation of nuclear weapons and preserving the Treaty’s vital contribution to peace and security. (Part I, Articles I and II and first to third preambular paragraphs, para 5).

53. The 2000 Review Conference also agreed a landmark series of practical steps for the systematic and progressive efforts to implement NPT, Article VI and paras 3 and 4 (e) of the 1995 Decision on “Principles and Objectives for Nuclear Non-Proliferation and Disarmament”. Step 6 is especially relevant: “An unequivocal undertaking by the nuclear weapon states to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament, to which all States parties are committed under article VI.”

54. Step 9 provides the basis for “Steps by all the nuclear weapon States leading to nuclear disarmament in a way that promotes international stability . . .

— Increased transparency by the NWS with regard to the nuclear weapons capabilities and the implementation of agreements pursuant to Article VI . . .

— Concrete agreed measures to further reduce the operational status of nuclear weapons systems. (Final Document of the Review Conference 2000, Part I, Article VI and paras 3 and 4(c) of the 1995 Decision on “Principles and Objectives for Nuclear Non-Proliferation and Disarmament”, para 15.9).

55. While NPT, article VI applies to “Each of the Parties to the Treaty” these steps adopted by the 2000 Review Conference make explicit that there are particular obligations on the nuclear weapon states.

56. A number of points can be made about the weight to be accorded to the documents of the 2000 Review Conference. First, a Declaration of the Review Conference is not a formal amendment to the NPT in the terms of article VIII (1) and does not have formally legally binding effect. However, Review Conferences are included within the NPT as an integral part of the structure for reviewing state compliance and resolutions adopted represent the expressed will of the states parties. Security Council resolution 1172, 6 June 1998 recalled the “Principles and Objectives for Nuclear Non-Proliferation and Disarmament” adopted by the 1995 Review Conference, which are themselves the basis of the steps agreed at the 2000 Conference.

57. Further the ICJ has given weight to the documentation of the NPT Review Conference process when it noted that the 1995 Review Conference had reaffirmed the importance of fulfilling the obligation of the NPT, article VI in its determination that the obligation “remains without any doubt an objective of vital importance to the whole of the international community today.” (Legality of the Threat or Use of Nuclear Weapons 1996 ICJ Reports, para 103). These factors all support the conclusion that the documents of such bodies have juridical significance “as a source of authoritative interpretation of the treaty.” (B Carnahan, “Treaty Review Conferences”, 81 American Journal of International Law (1987) 226, 229). This is also in line with the VCLT, article 31 (3) (a) as noted above.

58. Second, the language of the 2000 Review Conference is in many instances strong in its reiteration of the states parties’ obligations under the NPT. For example, the Conference notes the “reaffirmation” of the states parties’ commitment to Article VI (Part I, Article VI, para 1); the “unequivocal undertaking by the nuclear weapon states” (Part I, Article VI, para 15.6); the agreement for “concrete agreed measures to further reduce the operational status of nuclear weapons systems” (Part I, Article VI, para 15.9). Concretessential of language has been identified as one of the factors for determining when non-binding statements become normative. (G. Abi-Saab, “Cours General de Droit International Public” 207 Rec. Des Cours (1987) 160).

59. Third, the Conference agreed steps for the “systematic and progressive efforts to implement Article VI.” This is important as Article VI is imprecise in the nature of the obligation other than the requirement of good faith. There are no specified conditions or qualifications for taking those steps. In the context of obligations under human rights treaties the Committee on Economic, Social and Cultural Rights, article 2 “must be read in the light of the overall objective, . . . of the Covenant . . . It thus imposes an obligation to move as expeditiously and effectively as possible towards that goal. Moreover, any deliberately retrogressive
measures in that regard would require the most careful consideration and would need to be fully justified by reference to the totality of the rights provided for in the Covenant”. (UN Committee on Economic, Social and Cultural rights, General Comment No 3, The Nature of States Parties’ Obligations, 1994).

60. By analogy the assertion of practical steps for systematic and progressive efforts towards implementation of the NPT, article VI requires positive action towards that end by the nuclear weapon states and implies that retrogressive measures would be contrary to the Treaty’s objective and wording. This view is supported by the emphasis given by the ICJ that the Article VI obligation must be carried out in accordance with the basic principle of good faith.

61. Thus the importance of Article VI to the objects and purposes of the NPT and to the reciprocal obligations of nuclear weapon and non-nuclear weapon states is confirmed by the negotiation history of the NPT and reinforced by the reaffirmation of its significance by the 2000 Review Conference. The Security Council too has expressed the importance of this international regime in resolution 1172, 6 June 1998 which reaffirmed “its full commitment to and the crucial importance of the [NPT] as the cornerstones of the international regime on the non-proliferation of nuclear weapons and as essential foundations for the pursuit of nuclear disarmament.”

62. The inability of the 2005 Review Conference to agree a consensus statement does not detract from the continued applicability of the 2000 Review Conference, especially the practical steps for the “systematic and progressive efforts to implement Article VI.” Of particular interest in this regard is the statement by the Head of the UK Delegation. He noted that “non-proliferation and disarmament are inter-linked in achieving the Treaty’s goals” and that the UK continues “to implement the decisions of past review conferences, including those taken at the Review and Extension Conference in 1995 and the last Review Conference in 2000.” He also noted that as a nuclear weapon state the UK has particular obligations under Article VI and that it continued to support the disarmament provisions agreed at the 1995 and 2000 Review Conferences. (Statement by Ambassador John Freeman, Head of the UK Delegation, to the Seventh Review Conference of the Treaty on the Non-Proliferation of Nuclear Weapons, May 2005, available at http://www.un.org/events/npt2005/statements/npt05unitedkingdom.pdf.)

OBLIGATION TO NEGOTIATE IN GOOD FAITH

63. Between the 1995 and 2000 Review Conferences the ICJ in The Legality of the Threat or Use of Nuclear Weapons 1996 advisory opinion unanimously asserted in dispositif paragraph 105. 2. F that:

“There exists an obligation to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all its aspects under strict and effective control.” (Emphasis added)

64. The Court based this conclusion on NPT, article VI and confirmed that the obligation contained in article VI, as reaffirmed by the 1995 Review Conference “remains without any doubt an objective of vital importance to the whole of the international community today.” (1996 ICJ Reports, para. 103). As the words we have emphasised in the quotation in paragraph 63 above make clear, the Court has interpreted the obligation in article VI to include not merely an obligation to pursue negotiations in good faith but also to bring those negotiations to a conclusion.

65. The Court asserted that this obligation goes beyond that of a “mere” obligation of conduct for it is an obligation to achieve a precise result: “nuclear disarmament in all its aspects by the pursuit of negotiations on the matter in good faith.” (1996 ICJ Reports, para 99 and 102; see also M Marin Bosch, The Non-Proliferation Treaty and its Future”, in L Boisson de Chazournes and P Sands, eds), International Law, the International Court of Justice and Nuclear Weapons, 1999, 375).

66. The Court also noted Security Council resolution 984, 11 April 1995 which reaffirmed the “need for all States parties to the [NPT] to comply fully with all their obligations” (1996 ICJ Reports, para 103).

67. Commentators have noted the importance of the obligation contained in the NPT, Article VI. “It is important to note that the NPT is the only existing international treaty under which the major nuclear powers are legally committed to disarmament.” (T Rauf, “Nuclear Disarmament: Review of Article VI”, in J Simpson and D Howlett (eds), The Future of the Non-Proliferation Treaty, 1995, 66, 67). The affirmation and extension of this obligation by the Court has also been noted. Richard Falk asserted that the obligation to negotiate to achieve nuclear disarmament was not necessary for the Court’s judgment but that it went out of its way to assert this unanimously. “This emphasis in the advisory opinion on the obligatory character of Article VI of the Nuclear Proliferation Treaty appears to represent common legal ground between nuclear and non-nuclear weapons states.” (R Falk, Nuclear Weapons, International Law and the World Court : A Historic Encounter”, 91 AJIL (1997) 64, 65). Marin Bosch notes that Article VI is the “only treaty provision in which NWS have undertaken a legal obligation to negotiate nuclear disarmament agreements”. (M. Marin Bosch, The Non-Proliferation Treaty and its Future”, in L Boisson de Chazournes and P Sands, eds), International Law, the International Court of Justice and Nuclear Weapons, 1999, 375).

68. The wording of NPT, article VI, the assertion of the importance of the obligation by the ICJ, and by the 2000 Review Conference along with practical measures for its implementation all make clear that the obligations of nuclear weapon states parties to the NPT, including the UK are:
— to undertake to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race;
— to undertake to pursue negotiations in good faith on effective measures relating to nuclear disarmament, and to bring them to a conclusion; and
— on a Treaty on general and complete disarmament.

69. The Treaty obligation is thus not to disarm as such, but a positive obligation to pursue in good faith negotiations towards these ends, and to bring them to a conclusion. Good faith is the legal requirement for the process of carrying out of an existing obligation. In the Nuclear Tests cases the ICJ described the principle of good faith as "one of the basic principles governing the creation and performance of legal obligations". (Nuclear Tests cases Australia v France; New Zealand v France) 1974 ICJ Reports 253; 457, para 46). The obligation of good faith has been described as not being one "which obviously requires actual damage. Instead its violation may be demonstrated by acts and failures to act which, taken together, render the fulfilment of specific treaty obligations remote or impossible." (G Goodwin-Gill, "State Responsibility and the "Good Faith" Obligation in International Law": in M Fitzmaurice and D Sarooshi (eds) Issues of State Responsibility before International Judicial Institutions (2004) 75, 84). In the context of an obligation to negotiate in good faith this would involve taking no action that would make a successful outcome impossible or unlikely.

70. Would a UK policy with respect to extend or replace Trident be in accordance with this obligation?

Breach of Treaty: Law of State Responsibility

71. Questions of breach of a treaty are determined both by treaty law and by the principles on state responsibility. The International Law Commission (ILC), Articles on Responsibility of States for Internationally Wrongful Acts (GA Res 56/83, 12 December 2001), article 12, defines the existence of a breach of an international obligation as occurring "when an act of that State is not in conformity with what is required of it by that obligation, regardless of its origin or character." The International Court of Justice has asserted that such breach includes "failure to comply with treaty obligations." (Gabcikovo-Nagymaros Project (Hungary/Slovakia) 1997 ICJ Reports 7, para 57). Whether there has been such failure is determined by asking whether the behaviour in question was in conformity with" the treaty requirements (J Crawford, The International Law Commission's Articles on State Responsibility: Introduction, Text and Commentaries (Cambridge University Press, 2002) 125).

72. There are indicators that the UK intends to replace—or extend the life of—its Trident weapon system. Statements have been made that indicate the government is not looking at the non-nuclear weapon option. For example the Defence White Paper, Delivering Security in a Changing World (December 2003) reiterates the conclusion from the Strategic Defence Review 1998 that: "We should maintain a minimum nuclear deterrent based on the Trident system." (Defence White Paper, page 2) At paragraph 3.11 it states that the government’s policy on nuclear weapons remains as set out in the 1998 Strategic Defence Review. The Labour Party Manifesto 2005 states that "We are also committed to retaining the independent nuclear deterrent." (Bundle, Tab 8).

73. There have also been actions in conformity with this stance, for example the 2004 renewal of the Mutual Defence Agreement between the UK and the US. At that time President Bush stated that: "The United Kingdom intends to continue to maintain viable nuclear forces. I have concluded that it is in our interest to continue to assist them in maintaining a credible nuclear force." (Bundle, Tab 8).

74. Enhancing nuclear weapons systems, possibly without going through parliamentary processes, is, in our view, not conducive to entering into negotiations for disarmament as required by the NPT, article VI and evinces no intention to "bring to a conclusion negotiations leading to nuclear disarmament in all its aspects". It is difficult to see how unilateral (or bilateral) action that pre-empts any possibility of an outcome of disarmament can be defined as pursuing negotiations in good faith and to bring them to a conclusion and is, in our view, thereby in violation of the NPT, article VI obligation.

Breach of Treaty: The VCLT

75. The analysis has proceeded under the definition of breach provided by the International Law Commission’s Articles on State Responsibility. Breach is also included in the VCLT. However the VCLT deals only with "material" breach. The Articles on State Responsibility provisions are not limited to material breach and are applicable to any breach of a treaty.

76. In addition to determining that the UK is in breach of the obligations of the NPT, article VI under the ILC, Articles on State Responsibility, we also consider whether such behaviour amounts to material breach under the VCLT, article 60.

77. The VCLT, article 60 (3) defines a material breach as occurring in one of two ways: "A material breach of a treaty, for the purposes of this article, consists in: (a) a repudiation of the treaty not sanctioned by the present Convention; or (b) the violation of a provision essential to the accomplishment of the object or purpose of the treaty."
78. The UK has not repudiated the NPT and has indeed reaffirmed it as in the words of Ambassador Freeman cited above.

79. Therefore, if there is any material breach it must be under VCLT, article 60 (3)(b), that is whether there is behaviour that violates a provision “essential to the accomplishment of the object or purpose of the treaty.” The object and purpose of the NPT as spelled out in its preamble include “to undertake effective measures in the direction of nuclear disarmament.”

80. The linkage between the principles of non-proliferation and the obligation to negotiate towards disarmament shown by the negotiation history (discussed in paras 14–5 above) indicate that Article VI is a provision “essential to the accomplishment of the object or purpose of the treaty.” The non-nuclear weapon states required commitments from the nuclear weapon states as part of their willingness to accept non-nuclear status under the NPT and failure to comply with article VI thus, in our view, constitutes material breach.

19 December 2006

Memorandum from Plaid Cymru

Plaid Cymru welcomes the Defence Committee’s inquiry and this opportunity to respond to the White Paper.

Plaid Cymru believes that nuclear weapons are unusable, that the expense cannot be justified and that they are morally and legally wrong. We therefore oppose the replacement of the Trident nuclear weapon system and demand that the UK Government honours its commitment under the nuclear Non Proliferation Treaty and disarms rather than preparing to rearm.

We ask the Defence Committee to take into account in particular:

— That nuclear weapons would not defend the UK from the security threats it faces now and in the future, including terrorist attacks and climate change.
— That Britain is encouraging non-nuclear states to gain access to nuclear weapons by demonstrating our long term commitment to them and emphasising their importance to a country’s security. This undermines the UK’s condemnation of other states for attempting to become nuclear powers.
— That the International Court of Justice Advisory Opinion on Nuclear Weapons of July 1996 and the Non Proliferation Treaty of 1968 declared that there was an obligation to pursue nuclear disarmament
— That when the decision was made in 1980 to replace the Polaris nuclear weapon system with Trident, the UK Parliament was not properly informed of either its existence or cost. It is essential that there is proper parliamentary scrutiny, a full debate and a free vote in the final decision.
— That it has been conservatively estimated that replacing Trident would cost more than £15 billion, not including the full cost of decommissioning, dealing with waste or contamination. The full cost must be made clear and weighed against other funding priorities such as health and education.

Based on its planned lifespan, the current Trident system could remain operational until around 2025. The intervening years should be used to plan disarmament and implement the NPT Treaty internationally. This time could also be used to find alternative uses for the skills of the current workforce and provide retraining where necessary.

17 January 2007

Memorandum from Professor William Walker

1. Nuclear weapons give their possessors the ability to commit acts of indiscriminate annihilation of lives and worlds. For some, they are morally repugnant and no state, the UK included, is justified in acquiring and deploying them in any circumstance. This absolutist position is hard to sustain, however, if renunciation places a state and its people at the mercy of a nuclear-armed aggressor. Yet the possibility that some state might threaten nuclear attack sometime in the future does not warrant another absolutist conclusion—that all states have a right and responsibility, following the precautionary principle, to arm themselves with nuclear weapons. The consequences of a general international consent to deploy nuclear forces would be intolerable.

2. To justify the UK’s retention of its nuclear deterrent, it follows that the Government should be able to present particular reasons, beyond simple legality, why the UK—rather than other states—should possess them. In addition, the risks invoked when applying the precautionary principle should be substantial and credible, and the means proposed for addressing them should be appropriate and give rise neither to other unacceptable risks and costs nor to the foregoing of major opportunity.
3. The decision on Trident cannot be straightforward as it requires the balancing of many judgements in conditions of uncertainty. In my view, the arguments presented in the White Paper *The Future of the United Kingdom’s Nuclear Deterrent* are not persuasive enough to justify Trident’s replacement. The Government has not identified the particular reasons why the UK should retain a nuclear deterrent, nor has it allayed concerns about the risks, costs and lost opportunities associated with its proposals. Furthermore, Mr Blair is incorrect in claiming in his Foreword that “the Government’s decision followed a careful review of all the issues and options, which are set out in full in the White Paper”. Important issues and options are omitted, evaded or receive inadequate attention in the White Paper.

4. After brief comment on the White Paper’s observations about future threats and Trident’s contribution to collective security, attention will be drawn here to two sets of issues. The first concerns the UK’s treaty obligations and non-proliferation policies, and international ramifications of a decision to replace or not to replace Trident. Secondly, I wish to highlight a reality ignored by the White Paper: that the politics of Trident and its replacement are inextricably bound up with the politics of the Union, probably to the detriment of both. The White Paper only considers external risks to the UK’s survival. It does not consider the internal risk that Trident will contribute to the Union’s disintegration, nor that its operation out of Scotland might become politically infeasible even under devolution during the 20 years of its replacement, let alone the 50 years over which the new system would be replaced and operated. If the Government had applied its own precautionary principle, it would have given greater weighting to military options that could be located in England.

5. My concluding point is that this is the worst of times to be making a decision of such gravity, given the current volatility of domestic and international politics.

**FUTURE THREATS AND TRIDENT’S CONTRIBUTION TO COLLECTIVE SECURITY**

6. In the White Paper’s paragraphs 3–9 to 3–11, the Government identifies three types of threat justifying possession of a nuclear deterrent between 2020 and 2050: the re-emergence of a “major threat” from an established nuclear weapon state; the emergence of nuclear-armed states with lesser capabilities that could “nevertheless pose a grave threat to our vital national interest”; and the sponsorship of nuclear terrorism by a nuclear-capable state. These paragraphs contain general descriptions of possible developments in the international arena which cannot be discounted. They are nevertheless extremely vague. Little effort is made to explain how and why they pose particular threats to the UK, and why—if the threats do not exist today—they are sufficiently tangible and probable to merit paying such a heavy insurance premium.

7. The Government may understandably hesitate in naming specific states as future threats. It should nevertheless have provided clearer indication of the kinds of future circumstance that would compel the UK to threaten nuclear attack in its own defence. Otherwise, Parliament is being asked to base its decision largely on conjecture and intuition, and there is danger that the debate will be steered by Pavlovian suggestion rather than by public reason. In this age of “evidence-based policy”, the case for adopting such an extreme remedy should also be accompanied by evidence of specific occasions on which the deterrent has shown its worth, especially since the end of the Cold War. Have there been any such occasions if truth be told?

8. A more solid case for Trident’s replacement might have been presented by stressing its contribution to collective security. Besides the transatlantic alliance, it could have been argued that the British and French deterrents together provide assurances that Europe could respond to threats levelled against it, and that Europe would not have to rely solely on the US deterrent which might turn out to be unreliable. Removal of the UK deterrent might, by the same token, be politically and strategically unsettling in Europe, with unpredictable consequences. These arguments are not made in the White Paper. Beyond vague allusion to collective security in the fourth bullet point in paragraph 3–4, there is silence.

9. Outside the White Paper, Mr Blair made the following statement in his letter of 7 December 2006 to President Bush: “a future UK deterrent submarine force . . . will be assigned to the North Atlantic Treaty Organisation, and except where the United Kingdom Government may decide that supreme national interests are at stake, this successor force will be used for the purposes of international defence of the Atlantic Alliance in all circumstances”. What does this familiar mantra mean in the post-Cold War environment, and is it credible to commit Trident to be so used “in all circumstances”? Could any UK Government credibly promise to sacrifice London or Glasgow to protect a distant ally in a conflict that did not involve the UK’s survival?

**TRIDENT REPLACEMENT, INTERNATIONAL NUCLEAR ORDER AND THE NPT**

10. Although their predictions are cautious, the Government and White Paper’s subliminal messages are that nuclear proliferation is accelerating, nuclear weapons are regaining salience in relations among great powers, and the NPT and other arms control institutions are eroding and may collapse. This depiction of the future rests on an extrapolation from the past decade’s trends and events. Assessment of its validity has to rest on understanding of why, after remarkable progress in the years following the end of the Cold War, so much has gone wrong.
11. There are two main reasons. Firstly, a handful of states which had nurtured nuclear weapon programmes during the Cold War either became less secure after its end (eg North Korea), or their governments became caught up in a nationalistic striving for great power status (notably India). Their behaviour and the clandestine character of Iraq, Iran and North Korea’s weapon programmes exposed weaknesses in the NPT and its safeguards system and opened international divisions on how best to respond. Secondly, the United States’ strategy for promoting international nuclear order took a disastrous turn. It brought punishment, regime change and counter-proliferation into the foreground of nuclear politics without simultaneously deepening its own and everyone else’s commitment to the norms and rules underpinning the international nuclear order, of which the non-proliferation regime was only part. Furthermore, it sought to free itself from external restraint by rejecting a swathe of arms control measures and proposals while expecting others to exhibit ever greater restraint. This behaviour tore the NPT and the political bargains upon which it rested.

12. Whether there is progress or regress in international nuclear relations therefore depends on much more than dynamics of armament that have been let loose in the post-Cold War environment. It depends crucially on the direction of US policy (which may be shifting despite the recent confrontation with Iran) and whether, after a period of divergence, the policies of leading states will again converge on the achievement of order through international law and treaty processes accompanied by the prudent use of power. Above all, it depends on whether they recommit themselves to honouring the NPT and its Conference decisions. The decision on Trident and its supporting argumentation have to be viewed against this background.

13. Over the past decade, the UK’s international nuclear policies have become increasingly confused. On the one hand, it has maintained its traditionally strong support for arms control and the NPT and, as the White Paper correctly observes, has gone further than any other nuclear weapon state in reducing its capabilities to the minimum necessary, honouring its international obligations and promoting measures to strengthen the non-proliferation regime. On the other hand, Downing Street has worked assiduously to prevent the opening of clear blue water between UK and US policies: it has discouraged criticism of US strategies, reined in its enthusiasm for multilateral arms control, and supported the Bush administration in its military action against Iraq and in the rationale underpinning it. The one exception has been its joining with France and Germany in the “E3” diplomatic initiative, in the teeth of US opposition, to bring Iran into compliance with its NPT obligations.

14. Although the shadowing of US policy has reflected various judgements about British interests and international security, the desire to maintain and replace the Trident force has been an important factor. This desire could not be satisfied without permanent US assistance. Looking to the future, Parliament should worry less in my view about the operational independence of the deterrent than about the independence of UK foreign and security policy. Trident replacement will inevitably extend the UK’s political dependence on the US with a consequent loss of autonomy.

15. Regarding the effect of decisions concerning Trident on the non-proliferation regime, it can be stated emphatically that (a) a decision to replace the deterrent would injure the regime, and (b) a decision to abandon it would benefit it. The only question is how much injury and how much benefit.

16. A decision to replace Trident would injure the regime and thus UK interests for five main reasons:

— the UK is located in one of the most stable and secure parts of the world. The claim that simple uncertainty about the future justifies its retention of a nuclear deterrent will not gain international respect and sets an unfortunate example, providing easy political shelter to states seeking to justify acts of proliferation;

— the White Paper’s claim that “the UK’s retention of a nuclear deterrent is fully consistent with our international obligations” is contestable. Although the NPT provides the UK and four other nuclear weapon states with the right to hold nuclear weapons, that right is neither permanent nor unconditional. The nuclear weapon states’ obligation, as elaborated in the 2000 NPT Conference’s Final Document, is “to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament, to which all states Parties are committed under Article VI”. Replacing Trident is not easily reconciled with that obligation;

— the steps indicating the UK’s “Progress on Nuclear Disarmament” in Box 2–1 in the White Paper were set in train during the 1990s, particularly by the Strategic Defence Review of 1998. The White Paper presents no new proposals which might compensate for injury inflicted to the NPT. Nor does it convey any vision of how the UK will achieve further progress on arms control or disarmament at home or abroad. Experienced foreign diplomats are likely to interpret Box 2–1 as a dilution of UK policy on arms control and disarmament, for instance through its massaging of the above quotation from the 2000 NPT Final Document and the half-hearted reference to its “13 practical steps”;

— the close cooperation in warhead design and nuclear weapon systems under the US-UK Mutual Defence Agreement of 1958 is anomalous. It increasingly offends against the effort, advanced through the Proliferation Security Initiative and UN Security Council Resolution 1540 among other things, to inhibit international transfers of weapon-related technologies and materials; and
through this cooperation, the UK may become associated with the Bush administration’s exploration of new roles for and designs of nuclear weapons. Internationally, there is deep disquiet over where this exploration may lead.

17. The White Paper repeats the familiar assertion that the UK’s unilateral disarmament would not encourage the disarmament of other states. “There is no evidence or likelihood that others would follow the UK down a unilateralist route.” Although this is probably correct, at least in the short term, it does not follow that their policies would be unaffected. The UK’s announcement of its decision not to replace Trident would be a major international event with potentially wide consequences (my understanding is that the Government has not carried out studies of the consequences, which is regrettable):

— one of the five nuclear weapon states, and one of the NPT’s three depositary governments, would have committed itself to eliminate its nuclear arms and to honour its Treaty obligations in full. This would provide the UK with opportunities to play a highly influential and prestigious if unfamiliar role in international nuclear relations;

— the nuclear weapon states’ ability to act en bloc in international forums would be weakened, just as the non-nuclear weapon states’ ability to shape agendas and influence outcomes would be strengthened. The unfortunate coincidence of permanent membership of the UN Security Council with membership of the NPT’s nuclear club would also be broken (there are no grounds for fearing that the UK would lose its membership of the UNSC in consequence);

— the UK could offer to become a “nuclear disarmament laboratory” where the processes and techniques of eliminating a major weapon capability could be fully developed and demonstrated, greatly extending the experience of practical disarmament gained in South Africa, the Ukraine, Iraq and Libya and through the reductions of nuclear forces by the US, Russia, France and the UK itself. (It is regrettable that the White Paper contains no reference to Aldermaston’s pioneering work on verifying the dismantlement of nuclear warheads.); and

— especially in the US, a decision against Trident replacement would strengthen the hand of communities inside and outside the military who are pressing for a major re-examination of the future role of and reliance upon nuclear weapons. The article promoting “A World Free of Nuclear Weapons” by George Schultz, William Perry, Henry Kissinger and Sam Nunn in The Wall Street Journal on 4 January 2007 indicates the direction in which the wind is beginning to blow in Washington.

TRIDENT REPLACEMENT, SCOTLAND AND THE UK

18. Scotland is not mentioned in the White Paper as either the geographical place where Trident, and thus the entire UK deterrent, is located, or as home of a devolved Parliament and administrative system. This may be viewed as consistent with the Scotland Act of 1998 which reserves defence and foreign policy to London. The UK is a single state with a unified defence policy, allowing no region of the UK rights to obstruct the sovereign UK Parliament’s decisions on defence.

19. Yet there is a Scottish dimension that politically cannot be ignored (I examined it in detail in a book co-authored with Malcolm Chalmers in 2001). Beyond the immediate surroundings of Faslane and Coulport where Trident generates employment, there is a long tradition of Scottish opposition to nuclear weapons in general and their basing in Scotland in particular. It has been repeatedly expressed by the Churches, the Iona Community and civil society groups and runs across political parties. Furthermore, the Scottish National Party (SNP), which may lead a coalition in the Scottish Parliament after the approaching May elections and is pledged to hold a referendum on independence, has long placed Scotland’s renunciation of nuclear weapons at the centre of its political programme.

20. There are difficulties even if independence is not in prospect. Trident cannot operate out of Faslane without the Scottish Parliament and Executive’s close cooperation with the Ministry of Defence and other UK governmental bodies. This is because responsibility for policing, transport, land-use planning, emergency services and the regulation of radioactive emissions are devolved to Scotland. The commitment to cooperate on this and other matters is expressed in the 1998 Memorandum of Understanding between the UK Government and the representative Scottish, Welsh and Northern Irish administrative institutions, and by a Concordat on Defence which enjoins Scottish Ministers to “take account of the need for the unimpeded conduct of the defence of the UK”. This MoU and Concordat are not legally binding: they are essentially gentlemen’s agreements. With Labour administrations ensconced in both Holyrood and Westminster since 1998, the cooperation has run smoothly. It could no longer be taken for granted if

different parties came to dominate the Parliaments. Indeed, the SNP has already signalled that it will frustrate cooperation on Trident by various political and legal means if it gains ascendancy in the Scottish Parliament.79

21. The SNP’s policies and interests are nevertheless not straightforward. If it gains power in Holyrood in May, its primary concern will be to demonstrate competence and trustworthiness in government. It might then stand a chance of winning a referendum on independence and establishing credentials to bid for membership of the European Union and international recognition as a sovereign state. These interests might eventually draw it towards cooperation rather than obstruction of the deterrent (possible basing arrangements with an independent non-nuclear Scotland are discussed in the Chalmer/Walker book). For the moment, however, the SNP seems determined to oppose Trident and extract political capital from dissatisfaction with it.

22. As the Scotland Act allows, a debate on Trident’s replacement will probably be held in the Scottish Parliament before it is debated in Westminster. This will present acute difficulties for the Labour Party and administration in Scotland, and for officials in the Scottish Executive who will be loath to advise Scottish Ministers on such sensitive reserved matters. It is conceivable that the Scottish Labour Party will break ranks with the UK Party, declaring itself sceptical of the case for Trident’s replacement if not in outright opposition to it. Come what may, a situation might well arise in which a UK decision to replace Trident lacks legitimacy in Scotland, especially if the vote in Westminster is won through support of a Conservative Party which has little sway in Scotland, and if the votes of Scottish MPs are divided and a majority is secured through Cabinet loyalty and overt use of the Labour whip.

23. My fear is that a mood of “how dare you” could develop on either side of the border which, combining with other political currents, would have serious consequences. How dare you Scots attempt to exercise a veto over a decision to deploy a nuclear force that is vital to the UK’s defence and international standing? How dare you English impose this dangerous, undesirable and immoral weaponry on the people of Scotland when alternatives exist and the money can be better spent?

24. When the basing of Polaris was discussed by the MacMillan government in the early 1960s, 10 possible sites were considered. Six were in Scotland, three in England (Devonport, Falmouth and Portland) and one in Wales (Milford Haven). The Ministry of Defence now accepts that there is no plausible alternative to the submarine base at Faslane, partly because it could not gain political consent for opening nearby a facility equivalent to the Royal Naval Armaments Depot at Coulport (a few miles from Faslane) where the Trident missiles and warheads are stored and loaded on to the submarines. The Government appears to have assumed, when considering options for replacing Trident, that political opposition in Scotland could be weathered and need not affect the relative valuation of the three other generic options (reviewed in Annex B) which could have been located in England or Wales. As an influential former senior official in the Ministry of Defence observed to me, it was being assumed that the situation in Scotland was tricky but could be managed through some “deft politics”. This was complacent.

25. The White Paper extols prudence in the face of uncertainty. Is it prudent to advocate spending tens of billions of pounds on Trident’s replacement in order to guard against an undefined future threat, when it is uncertain whether the deterrent could be operated reliably out of its base in Scotland and whether the Union will still exist when the new system is due to be installed?

THE DECISION’S BAD TIMING

25. Whichever views are held on the UK deterrent’s future, the Government’s timing of the debate and decision is most unfortunate. A reliable conclusion is unlikely to be reached against the background of such domestic volatility north and south of the border and international volatility in the Middle East and elsewhere. In addition, US foreign and security policies may soon enter a period of major change, especially after the 2008 Presidential election, as the failings of its recent policies become more and more evident. Although I have not addressed the question of lead-times in this memorandum, I share the view that a decision on replacement in 2007 is unnecessary.

17 January 2007

Memorandum from Dr Eric Grove

GENERAL ASSESSMENT

1. Much of Cm 6994 presents a good case for retention of an SSBN based deterrent, perhaps at 25% reduced strength in submarines. There are, however two connected issues relating to submarine life and construction capacity that need further investigation by the Committee.

79 See “SNP plan to criminalise pro-Trident politicians”, Sunday Herald, 7 January 2007.
A. SUBMARINE LIFE

2. Although the arguments in paragraphs 1–4 and 1–5 are powerfully made, as one of those who have made the “suggestions that we should replicate the US plans to extend the lives of their Ohio-class SSBNs” I am still far from convinced that this is such a difficult option as Cm 6994 argues. I am aware of American opinion that finds the White Paper’s arguments surprising.

3. The use of the “past experience” with both SSNs and SSBNs with PWR 1 based propulsion systems to draw lessons for life extension of the PWR 2 powered Vanguards is questionable. The PWR 1 based system has indeed had its problems over the years but these may well not occur to the same extent with the more advanced PWR 2 system. The fact mentioned in the White Paper that a PWR 1 powered SSN lasted for 33 years is an argument in favour of further life extension rather than the opposite, with that unit’s being powered by the older system and also its shorter inherent hull life, given the different operating profiles of SSNs and SSBNs. Even if the White Paper’s arguments are indeed sound, one might question the policy of building SSBNs for a life span much shorter than that expected by our closest ally for its similar assets.

4. The likely key to this problem seems to be the use of more stringent civilian safety and regulatory standards with the Royal Navy’s nuclear propulsion systems, as mentioned in paragraph 1.6, compared to the more robust service standards within the US Navy. If further investigation reveals this indeed to be the case then it ought to be given a higher profile as a factor enforcing new construction. The fact that the USN is adopting a service life extension (SLEP) policy with its SSBNs shows it must think there are advantages in such a course of action. If there are such advantages might not the Ministry of Defence exploit them also?

B. NUCLEAR SUBMARINE BUILDING CAPACITY

6. The really key issue is Britain’s capacity to design and build nuclear powered submarines. The new class of SSBNs is probably essential to maintain Britain’s capacity to do so at anything like acceptable cost. As the White Paper rightly said in paragraph 6.2, the “Astute” programme began with “less than optimal industrial and design arrangements” for which a serious price had to be paid in time and expense. This was because of the gap between completing the “Trafalgar” class programme in 1991 and beginning the “Astutes” 10 years later. Assuming the building of a total of eight “Astutes” to replace the entire SSN force this would mean the last boat being delivered about 2023 when the last Trafalgar is due to pay off (after a life of over 30 years). If the new class of SSBN was not built this would leave another decade or so’s gap before any more SSNs, a gap that would have similarly serious industrial implications. The 25 year lifespan for submarines would mean that a new generation of SSN would be due in the early 2030s just after the entry into service of the last SSN, so maintaining the production base into the future. The quarter century lifecycle thus has powerful industrial justification.

7. Taking the decision now therefore has, perhaps, less to do with the maintenance of the deterrent and more to do with maintaining nuclear submarine building capacity. This should be faced still more openly than it is in Cm 6994. With the surface fleet facing further major and significant cut-backs there is a case for reconsidering whether Britain can afford a fleet containing nuclear powered submarines while retaining a sufficiently powerful surface navy. There have been non-nuclear powered options put forward for the Maritime Underwater Future Capability under consideration by MoD to replace the “Trafalgar”. There also exists a school of thought within the Service that is very doubtful about the high cost of nuclear power and its opportunity cost implications.

8. My own view is that Britain should indeed retain a force of SSNs given these assets’ unique capabilities. This may well be a powerful case for a new generation of SSBNs on the Government’s timescale but it is one that needs to be clearly recognised for what it is, an argument about Britain’s future maritime capabilities and naval industrial infrastructure as a whole as much as one about her nuclear deterrent alone.

17 January 2006

Memorandum from the World Disarmament Campaign

1. INTRODUCTION

1.1 The World Disarmament Campaign (WDC) was founded in 1979 to work for the implementation of the Final Document of the 1978 First Special Session on Disarmament of the UN General Assembly, which was signed by every then member of the UN. That remains our basic aim. Disarmament, both nuclear and “conventional”, is an essential component of any progress towards long-term peace and security in a just and sustainable world community, which is surely what all right-thinking people desire.

1.2 We therefore welcome the decision of the Defence Committee to conduct an inquiry into the White Paper on the future of the UK’s nuclear deterrent, which has pre-empted the Committee’s previous planned series of inquiries into this contentious topic. Many of the questions asked by the report of the first of that series have not, in our view, been adequately answered by the White Paper.
2. SUMMARY

2.1 WDC is totally opposed to all nuclear weapons, everywhere. We question the whole concept of “the deterrent”, which contains within itself a fundamental contradiction. We believe that the threat or use of nuclear weapons is illegal under International Humanitarian Law, under all conceivable circumstances, since they are inevitably unpredictable and indiscriminate in their effects. We further believe, as argued by many authorities, that replacement of the Trident nuclear weapon system would be a clear breach of the Nuclear Non-Proliferation Treaty (NPT), with its obligation on the nuclear weapons states to “pursue negotiations in good faith relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, . . .”. They do not increase the security of the UK or of the world. On the contrary, they increase insecurity, both by their own existence and by the encouragement they provide for proliferation.

2.2 In short, in the words of General Lee Butler, former Commander-in-Chief of the US Strategic Air Command, “Nuclear weapons are inherently dangerous, hugely expensive, militarily inefficient and morally indefensible.”

3. DETERRENCE

3.1 We begin by repeating the point we made in our submission to the previous Defence Committee inquiry. Any weapon may be a deterrent in particular circumstances, but to assume that it will always be so by virtue of its mere existence, as is implied by the conventional terminology, depends on many assumptions that in our view cannot be justified. Nuclear weapons are always referred to as the “Nuclear Deterrent”, or even simply “the deterrent”. We would challenge this. “Deterrence” may be a function of a weapon, but it cannot logically define the weapon itself. This (deliberately?) misleading terminology tends to pre-empt the whole debate.

3.2 Further, the concept of deterrence contains a fundamental contradiction. A “deterrent” can only be effective if it is recognised that there is a realistic possibility of its being used. As the White Paper rightly states: “. . . nuclear weapons pose a uniquely terrible threat . . .” [page 17] If the consequences of its use would be so horrendous that it is inconceivable that any sane leader would sanction its use, then it cannot fulfill the alleged function of a deterrent. However, if it is ever used, it has clearly failed as a deterrent. The White Paper makes no attempt to face up to this dilemma, but simply evades the issue:

“we deliberately maintain ambiguity about precisely when, how and of what scale we would contemplate the use of our nuclear deterrent. We will not simplify the calculations of a potential aggressor by defining more precisely the circumstances in which we might consider the use of our nuclear capabilities. Hence we will not rule in or out the first use of nuclear weapons.” [page 18] (Our emphasis)

3.3 This last sentence encapsulates the lack of logic in the whole argument: First use would surely be the most abject admission of failure in history, and would be one of the worst crimes against humanity in the blood-stained history of the human race. Second use, in retaliation, would again be the result of the complete breakdown of the deterrent concept.

3.4 We conclude that the belief in the “nuclear deterrent” is an article of faith rather than a statement of fact or of logical analysis of the real world.

4. HISTORY

4.1. The article of faith referred to above is often expressed in the form: “nuclear weapons have kept the peace in Europe since 1945”, i.e., throughout the Cold War. But detailed analysis shows this to be a very simplistic interpretation of the facts. There have been some 200 armed conflicts around the world in that period, many of them surrogate wars for the superpowers, and causing many millions of deaths. On a number of occasions, in Korea for example, nuclear weapons came very near to being launched.

4.2 The White Paper states that the original rationale for the UK’s “nuclear deterrent” was to address the threat to the UK’s vital interests from the Soviet Union. It repeats the commonly accepted justification that NATO did not possess sufficient conventional military forces to defeat an attack by the Warsaw Pact. However, although this is rarely questioned, it is not really so clearcut. In 1987 the American military analyst Tom Gervasi produced a commentary on the Pentagon’s Guide to Soviet Military Power which went through that document page by page and point by point, showing that in almost every instance there was significant exaggeration of the capabilities of the Soviet forces, and that comparisons which would show the advantage held by the equivalent US forces were omitted. He concludes: “Both the nuclear and conventional balances of power in Europe have always heavily favored NATO and continue to do so.”

4.3 This is not to deny that the Soviet Union did possess huge quantities of arms, nuclear and conventional, and might have been prepared to use them. Had war broken out it would have been even more devastating than World War 2. But there is little or no evidence that there was ever any serious plan to overrun Western Europe. There were enough problems maintaining a grip on its satellites in Eastern Europe to inhibit such an adventure: East Germany in 1953; Hungary in 1956; Czechoslovakia in 1969 (the Prague Spring) and again in 1977 (Charter 77); Poland in 1980s, and, of course, the final break-up of the Soviet Union in 1991.
4.4 It is true that during the Cold War Soviet missiles were targeted on the UK (indeed, probably still are) and that they were never used. Would they have been used had the UK not had nuclear weapons? It cannot be proved either way, but it may be noted that since the demise of the Soviet Union, the revelations that have emerged have not included any that indicate either the intention or even contingency plans to do so except in the context of an all-out superpower conflict. The UK’s primary role was always as an unsinkable aircraft carrier for the US, and it was this that made it a target, not any direct and irreconcilable conflict of interests between the UK and the USSR or Soviet plan to add Western Europe to its empire.

5. PRESENT AND FUTURE: UNCERTAINTY

5.1 We welcome the fact that the White Paper at least attempts to respond to some of the criticisms of the government’s policies [Box 3.1, pages 20–21], although we find the arguments fairly weak.

5.2 Whatever one believes about the role of nuclear weapons in the past, there is no doubt that the situation today is totally different. The White Paper recognises this. “Currently no state has both the intent to threaten our vital interests and the capability to do so with nuclear weapons.” [Paragraph 3–8, page 19] Following this, however, it attempts to justify retaining nuclear weapons by projecting hypothetical threats that might emerge in the future. This is a counsel of despair and a complete contradiction of the NPT. So long as nuclear weapons exist, there will be a possibility that they will be used. The longer they continue to exist, the greater the probability that they will be used; in fact the scenario painted by the White Paper leads to the conclusion that their use will eventually become almost inevitable. As we will show below, there are better ways of preventing this than the UK’s contributing further to the nuclear madness.

5.3 The real threat, not to the security of the realm, but to human security everywhere, is terrorism. That nuclear weapons are no defence against terrorism has been argued so many times by so many authorities and so cogently that there is no need to repeat the arguments here. It should be self-evident that “deterrence”, whatever merit it may have in relation to potential conflict between states, is totally irrelevant to this particular threat by non-state actors. This is accepted by the White Paper. However, the argument of the White Paper that our nuclear weapons could influence the decision-making of any state that might consider transferring nuclear weapons or nuclear technology to terrorists is naive, to say the least. Would any such state loudly proclaim to the world: “Yes, we have given six nuclear missiles to Osama bin Laden”, and hence invite Armageddon to be rained on it? Or would the decision be based on “intelligence” such as that which was used to justify the attack on Iraq? How to respond to terrorism, and in particular the alternatives to the current “war on terror”, are undoubtedly difficult questions, but certainly we believe that nuclear weapons have no useful part to play in protecting the people of the world from terrorist attacks.

5.4 That the future is uncertain is a truism. We have no crystal ball any more than the government. But that does not mean that nothing can be done to influence it in a favourable direction. On the other hand, the White Paper’s argument would still be valid when a Trident Replacement needs replacing in 20 years, in 50 years, or 100 years; ie, it is a recipe for the retention of nuclear weapons for ever. And that, as already noted above, is a recipe for almost certain disaster.

6. “MINIMUM DETERRENCE”

6.1 The government claims, as it always has, that it maintains only a “minimum deterrent”. This is currently assessed as 200 warheads, and the White Paper concedes that this could be reduced to 160. But the calculation on which this or any other number is based is never revealed. Each Trident submarine carries up to 48 warheads, each of explosive power eight to 10 times that of the Hiroshima bomb. Can it be conceived that the threat of 48 Hiroshimas-plus is necessary to influence these hypothetical adversaries in the uncertain future? It could be argued that a single such warhead, with a guarantee that it would reach its major city target, would deter any state leader who was not completely mad. Conversely, any such leader would be unlikely to be deterred by any number.

7. LEGALITY OF NUCLEAR WEAPONS

7.1 The White Paper quotes the Advisory Opinion of the International Court of Justice (ICJ) regarding the legality or otherwise of nuclear weapons, but it does so selectively and misleadingly. The ICJ, in Paragraph 105 (2) E of its Advisory Opinion, stated that: “the threat or use of nuclear weapons would generally be contrary to the rules of international law applicable in armed conflict, and in particular the principles and rules of international humanitarian law.” It also stated that if the use of any weapon is illegal under IHL, the threat of such use is also illegal. [Paragraph 47] The Court could not “...conclude definitively whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self-defence, in which the very survival of a State would be at stake.” (our emphasis) This is very far from stating, as the White Paper does, that the Court “rejected the argument that such use would necessarily be unlawful” [section 2.11, page 14] In his Declaration, the then President of the Court, Judge Bedjaoui, emphasised that this possible reservation did not constitute an authorisation of use, and that any such use would still have to accord with IHL in respect of indiscriminate effects; ie, it would have to be capable of distinguishing between military and civilian targets.
7.2 It should be noted that even this reservation did not receive unanimous backing from the members of the Court. A minority of judges disagreed, including Judge Christopher Weeramantry, then Vice-President of the Court. He entered a dissenting opinion which concluded that threat or use of nuclear weapons would be illegal in all circumstances.

7.3 It should also be noted that “...the very survival of a State...” goes far beyond the formulation of “vital interests” consistently used by the government when challenged on this, and in the White Paper.

7.4 In the 10 years since the Opinion was given, many international lawyers have further analysed the judgement and other information and concluded that nuclear weapons are indeed illegal in all circumstances. These include Judge Weeramantry again, Louise Doswald-Beck of the University Centre for International Humanitarian Law, Geneva, Professor Philippe Sands, QC, Rabinder Singh, QC, and Professor Christine Chinkin.5, 6, 7, 8 The reasons given are the unpredictability of the effects of nuclear weapons. Any use of nuclear weapons creates a highly radioactive fireball which generates an intense blast wave, a heat flash, “prompt” radiation and radioactive fallout. The fallout in particular is very unpredictable. Any use is therefore likely to cause “superfluous injury and unnecessary suffering” to targeted combatants and to expose non-combatants (civilians of an attacked state or of neutrals or even of the attacker) to the risk of radiation sickness, to leukaemia and other cancers for decades to come, and perhaps genetic change leading to harmful mutations in succeeding generations.

7.5 It is not only lawyers who have declared that nuclear weapons are illegal. Kofi Annan, recently retired UN Secretary-General, has stated “...by clinging to and modernising their own arsenals, even when there is no obvious threat to their national security that nuclear weapons could deter, nuclear-weapon States encourage others—particularly those that do face real threats in their own region—to regard nuclear weapons as essential, both to their security and to their status. It would be much easier to confront proliferators, if the very existence of nuclear weapons were universally acknowledged as dangerous and ultimately illegitimate.”9

7.6 When the government is challenged with these judgements, as it has been many times in recent years, it simply repeats its view that “...maintaining a minimum nuclear deterrent is fully consistent with all our international legal obligations...”. [Box 3–1 paragraph 7, page 21] This would not be considered remotely good enough in any other legal situation. The government should publish in full whatever legal advice it has which purports to justify its position, and should be prepared to test this in an appropriate court. That court might be the International Court of Justice.

8. NON-PROLIFERATION TREATY

8.1 The NPT was opened for signature in 1968 and came into force in 1970. Article VI, as already noted, reads: “Each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a Treaty on general and complete disarmament under strict and effective international control.” No such negotiations have ever taken place in the 37 years since then, and there are no proposals for such negotiations to start on the table at present.

8.2 “In Para. 105 (2) F of its Advisory Opinion4, the ICJ interpreted Article VI as an obligation to pursue such negotiations and bring them to a conclusion. (our emphasis) This obligation is simply ignored by the government.

8.3 In the years immediately following the introduction of the Treaty, not only were there no negotiations, but all the nuclear powers continued to develop their nuclear arsenals in both quantity and quality. In more recent years there has been some reduction in numbers, in the case of the UK to the present 200 Trident missiles, but to claim that this in some way fulfils the Article VI obligation is disingenuous, or worse. Exact comparisons, taking into account explosive power, range, accuracy, etc, are not available, but one may suspect that the actual destructive power of those 200 Tridents is greater than was the case in 1970, although less than the peak which occurred in the late 1980s. The US and Russia, of course, still have many thousands of nuclear weapons in their stockpiles, and they too are in flagrant breach of their obligations.

8.4 Throughout the White Paper, there are references to “the recognised nuclear weapon states”, from the Prime Minister’s Foreword to the attempted refutations of critics in Box 3–1. This phrase does not appear anywhere in the NPT. Article IX simply states: “For the purposes of this Treaty, a nuclear-weapon State is one which has manufactured and exploded a nuclear weapon or other nuclear explosion device prior to 1 January 1967.” This gives no special status to the earliest possessors of nuclear weapons, except in so far as it is they who have to disarm their weapons, whereas non nuclear-weapon states just have to maintain their existing situation. Again it must be emphasised that the basic obligation in the NPT is to pursue negotiations in good faith ... to nuclear disarmament.

8.5 The last clause in Article VI is sometimes interpreted as meaning that nuclear disarmament is dependent on a prior treaty on general disarmament. In Paragraph 2.10, page 14, the White Paper states: “Article VI of the NPT does not establish any timescale for nuclear disarmament, nor for the general and complete disarmament which provides the context for total nuclear disarmament.” While WDC is concerned with all types of weapon, from the small arms which actually do most of the killing around the world, to the nukes which are the subject of this paper, via all the high-tech weapons such as the Eurofighter
which can themselves almost be categorised as Weapons of Mass Destruction, and which absorb so much of the world’s resources, this again is disingenuous or worse. WDC would greatly welcome such a treaty, but the NPT is specifically aimed at nuclear weapons. The crucial word in the Article is “and” on a Treaty. There is a suspicion that this clause was included specifically to fudge the issue. But in any case, the ICJ judgement is categorical: “there is an obligation to pursue such negotiations and bring them to a conclusion.”

8.6 It is, therefore, a legitimate question, which demands a clear and categorical answer from the government: When will these negotiations be started, who will take the lead, and when can the peoples of the world look forward to a world free from the threat of nuclear annihilation? The UK is in an ideal position to take the lead in this, if only it discards the faulty logic exposed in this paper.

8.7 As a basis for the negotiations, there is already in existence a draft Nuclear Weapons Convention, prepared by a wide range of legal and other civil society authorities, and deposited with the UN by Costa Rica. If there was a genuine desire for nuclear disarmament, which all the nuclear powers profess and are obligated to pursue, this could be converted into an effective treaty in far less than the 20 to 50 years perspective of the White Paper.

9. Proliferation

9.1 Proliferation is undoubtedly a very serious problem, both that which has already happened and possible future. But it still does not constitute a direct threat to this country. The nearest to a nuclear conflict that has occurred since the end of the Cold War is the stand-off between India and Pakistan over Kashmir. Outright war has been avoided so far, and relations have improved to some extent, but it remains a potential flash-point.

9.2 Similarly, the Middle East is a powder keg. Israel’s nuclear weapons, although not explicitly admitted by the Israeli government, are universally believed to exist and constitute a major destabilising factor in the region. Should Iran or any Arab countries obtain nuclear weapons, that would be a recipe for disaster, but none of these would be targeted on the UK. It is difficult to see in what way Britain’s nuclear weapons contribute to preventing this development.

9.3 The same argument applies to North Korea. While it is deplorable that North Korea has withdrawn from the NPT and developed its own nuclear weapons, it has never been suggested that these are—or indeed could possibly be—aimed at the UK. It should be noted that all these developments have taken place while the UK has maintained its “minimum deterrent”, and the superpowers have maintained their thousands. In fact, every state that has developed nuclear weapons, apart from the first, the US, has cited the existence of others as among the reasons for their doing so. In the case of North Korea, while again wishing them to return to the NPT and fulfill their obligations under it, it has been under nuclear threat from the US for many years. In the Nuclear Posture Statement submitted to Congress in December 2001, North Korea is still named as a potential nuclear target.

9.4 Iran, on the other hand, does not currently have nuclear weapons, and claims to have no intention of developing them. One may well be sceptical about this, and in the complex political scene that is Iran today it is almost certain that there are elements in favour of going nuclear. But there is also a strong element in the Islamic hierarchy that is opposed in principle to doing so. Whatever one’s view of this, it is difficult to see how the UK’s present or future nuclear weapons will influence Iran’s policies. They are certainly not used by Iranians of any persuasion as reasons for not developing their own weapons. On the contrary, when one reads statements such as “Within the next 12 months, the Americans or the Israelis, possibly both, are likely to launch military strikes aimed at crippling Iran’s nuclear ambitions.” Those strikes my come sooner than later. And they will probably be nuclear.” (Douglas Davis, The Spectator, 6 January 2007) There could not be a stronger incentive for Iran to develop its own “deterrent”.

9.5 The White Paper, again attempting to answer critics, says: “There is no evidence or likelihood that others would follow the UK down a unilateral route. There would need to be compelling evidence that a new threat would not re-emerge in future before we could responsibly contemplate such a move. It would be highly imprudent to mortgage our long term national security against any such assumption.” [Box 3–1, paragraph 3, page 20] But that is not the question. Has the UK’s possession of nuclear weapons influenced the proliferators listed above? Obviously not. So it may well be true that they would not follow the UK lead. But would the UK’s giving up its nuclear weapons give it a stronger position to influence current non-nuclear states which are considering going nuclear? That is at least an arguable proposition; it would eliminate the charge of hypocrisy when attempting to put pressure on such potential proliferators.

9.6 It seems a strange argument that the UK’s retention of its nuclear weapon system into the indeterminate future will have a significant influence on that future, while its abandonment and, hopefully, a start to the process of de-nuclearising the world will have no effect whatever.

9.7 It is also worth noting that most of the (small) advances that have been made have started as unilateral initiatives, such as the Soviet moratorium on testing which led ultimately to the Comprehensive Test Ban Treaty. And, of course, every escalation in the nuclear arms race has been a unilateral decision by one of the nuclear powers.
9.8 To sum up, the crucial step in preventing further proliferation and proceeding towards a nuclear weapon-free world is for the major nuclear weapon states to fulfil their obligations under the NPT and start serious negotiations ("in good faith") towards their elimination.

10. GLOBAL SECURITY AND HUMAN SECURITY

10.1 Why does any state believe that it needs nuclear—or, indeed, any other high-tech—weapons to ensure its security? In Paragraph 3–7, page 18, the White Paper says: “Increasing pressure on key resources such as energy and water (which could be driven by a range of factors, potentially including population growth, increasing global economic development and climate change) may increase interstate tension. Two points in response to this: (1) Most conflicts in recent years (apart from Iraq and Afghanistan) have been intrastate rather than interstate. Nuclear weapons are totally irrelevant to such conflicts; (2) If a small proportion of the resources currently devoted to producing weapons were to be applied to dealing with these problems, they would become much less significant. For example, an adequately funded UN Water Agency could probably provide almost every person in the world with clean water within 10 years. The small scale technology exists, but relying on non-governmental agencies like Water Aid is totally inadequate. (The Millennium Development Goals are far too modest, yet even they are not being achieved.)

10.2 Putting Human Security at the top of the international agenda, rather than continuing the old, old ways of power politics and “peace through strength” would be a far more fruitful way to achieve a peaceful future for mankind.

11. PRACTICAL POLITICS

11.1 We recognise that MPs and political parties have to take cognisance of public opinion, and the vast majority of the electorate will never have access to the sort of detailed argument presented in this paper. The instinctive response of many people is likely to be: “We need our nuclear weapons so long as others have them.” This is a recipe for nukes for ever and ever. So how can this be overcome?

11.2 Could a political party which proposed to do away with the UK’s nuclear weapons, either immediately, or over a period by not replacing Trident, gain the support of the voters in doing so? Past evidence (1983, 1987 and 1992 in particular) would suggest not. But the situation is different today. We are not currently in an election period, so it can be debated without party point scoring (we hope). The cross-party Defence Committee, if it concluded, as we believe it should, that the case for Trident replacement has not been made by the government, this would carry great weight and remove much of the emotional baggage that has been invested in the issue in the past. It is understandable that MPs, and political parties, do not wish to espouse policies which they see as vote losers, whatever their objective merits. But we strongly urge the Committee, if our arguments are as convincing as we believe them to be, to make their decision based on these arguments and not on perceived political repercussions.

11.3 In his Foreword to the White Paper, the Prime Minister looks forward to a substantial period of public and parliamentary debate in which the issues can be aired freely. But the timescale is far too short for this, and there is no mechanism for adequate public consultation. We urge the Committee to point this out to the government, and request that a proper consultation be put into operation. This should include provision for opponents of Trident renewal to put their case. Small organisations like WDC have no possible way of getting their case over to the public without such provision.

12. JOBS

12.1 Whenever cuts in public spending in any field are proposed, the workers affected are naturally concerned about their jobs. This is particularly true of the highly specialised shipyard workers who produce the submarines. Some of the workers in the Barrow shipyards have therefore campaigned for Trident replacement, in order to save their jobs. This may be understandable, but it is mistaken. Jobs cannot be the deciding factor, or even a major factor, in determining policy on such an important issue as nuclear weapons.

12.2 What should be done is tap into all the skills and knowledge of these workers to find alternative employment for those skills. For example, the impact of climate change is starting to generate a resurgence of interest in waterborne transport at all levels, as one of the most environmentally friendly ways of moving both goods and people around. Post 1945 millions of workers were redeployed from wartime industry and the services, with great success. What existed then and what is needed now is planning and the political will.

12.3 We would also suggest that the morality of jobs being dependent on producing weapons of mass destruction (see below) is also something to be considered.
13. COST

13.1 Many different figures have been suggested for the cost of replacing Trident, ranging from £15–20 billion in the White Paper, to £79 billion taking into account maintenance costs over its lifetime. But the precise figure is not important. Even £20 billion is a lot, which could and should be spent on constructive purposes rather than means of destruction. If the arguments in this paper are valid, then one penny is too much. On the other hand, if nuclear weapons are essential to our security and survival, then money should be almost no object. But it is up to those who wish to spend money in this way to prove up to the hilt that this really is so. We do not believe they can.

14. MORALITY

14.1 Moral issues are not usually considered in matters of realpolitik, but surely they must come into play when dealing with weapons with such potentially catastrophic consequences. One does not have to be a Christian to recognise the importance of the sixth commandment, “Thou shalt not kill”, as an essential foundation for any civilised society. So how can a “defence” policy predicated on the potential killing of millions, and even the destruction of the whole of civilisation, ever be justified? Such a policy must surely be abhorrent to any morally educated person.

15. TAILPIECE: THE SINNER THAT REPENTETH?

15.1 If all the eloquence and logic that has been mustered by the writer of this paper still fails to convince, may we appeal to authorities that might even be accepted by the most ardent of nuclear warriors.

15.2 “Nuclear weapons today present tremendous dangers, but also an historic opportunity. US leadership will be required to take the world to the next stage—to a solid consensus for reversing reliance on nuclear weapons globally as a vital contribution to preventing their proliferation into potentially dangerous hands, and ultimately ending them as a threat to the world . . . Reassertion of the vision of a world free of nuclear weapons and practical measures toward achieving that goal would be, and would be perceived as, a bold initiative consistent with America’s moral heritage . . . We endorse setting the goal of a world free of nuclear weapons and working energetically on the actions required to achieve that goal, beginning with the measures outlined above.”

15.3 And who are these authorities? George P Schultz, William J Perry, Henry A Kissinger and Sam Nunn, former high level architects of the Cold War.

16. TAILPIECE 2: STOP PRESS

16.1 The Bulletin of the Atomic Scientists has just announced that the hand of the Doomsday Clock has been moved forward by two minutes, to five minutes to midnight. A decision not to replace Trident would be at least a glimmer of light in this Stygian scenario.

REFERENCES:

2 General Lee Butler, Speech to the National Press Club Washington DC, 1996.
4 Legality of the Threat or Use of Nuclear Weapons. ICJ Reports 1996.
5 Christopher Weeramantry, Main findings of the Court and the legal developments since 1966*.
9 Kofi Annan, Speech delivered at Princeton University, 16 November 2006.

17 January 2007
Memorandum from the Church of England

1. The Church of England welcomes the opportunity to respond to the Defence Committee’s inquiry on the Government’s White Paper on “The Future of the UK’s Nuclear Deterrent”. The Mission and Public Affairs Council of the Church of England is the body responsible for overseeing research and comment on social and political issues on behalf of the Church. The Council comprises a representative group of bishops, clergy and lay people with interest and expertise in the relevant areas, and reports to the General Synod through the Archbishops’ Council.

Executive Summary

2. We agree that it is a fundamental responsibility of any Government to provide for the security of the UK and its citizens now and for the future, against both real and potential threats, including nuclear aggression and blackmail. Security is the good that makes possible all other goods and the defence of the United Kingdom remains the first duty of the Government. Yet, since nuclear weapons belong by virtue of their terrifying power in a different category to any other weapons’ system it is important to ask what kind of security they offer us and in what circumstances, if any, their use or threat of use can be ethically justified.

3. There is much in the White Paper that is to be welcomed. The White Paper is in our view right to seek to confine its arguments for the retention of a nuclear capability solely to the case for deterring nuclear threats and to resist the temptation to broaden its use to counter lesser threats such as chemical and biological weapons. We welcome the proposed reductions in the stockpile of the UK’s nuclear arsenal. These, and a readiness to reduce the number of submarines necessary to maintain this deterrent capability underlie the UK’s track record in progressively reducing its capability in line with its international obligations under the Non Proliferation Treaty. We also agree that the question of what constitutes a reasonable insurance policy in a dangerous and uncertain world is important and difficult. It is right that Governments should err on the side of caution.

4. The White Paper does not adequately address the ethical concerns that many Christians and people of other faiths and none have around the manufacture and use of nuclear weapons. These concerns are no less grave now than in the days of the Cold War. There are three issues here. First, it is essential in our view that ethical issues concerning the manufacture and use of nuclear weapons are fully considered in the debate which the Government has invited on its proposals. Second, in addition to the issue of the moral legitimacy of a nuclear deterrent, it is also necessary that the public debate address the White paper’s deliberate ambiguity as to what might constitute a minimum nuclear deterrence. That deliberate ambiguity may be justified, but it must not be allowed to foreclose the debate. Third, in the debate the Government also needs, in our view, to demonstrate more convincingly than in the White Paper how the proposed deterrent would add to the security of the UK and to the UK’s ability to act effectively in the service of peace, justice and prosperity in the wider world. These concerns and questions must be examined vigorously over the coming months. The Government has a solemn obligation to ensure that all the facts necessary for an informed debate are made available.

Nuclear Deterrence in the 21st Century

5. The White Paper accepts that the security environment has changed significantly since the end of the Cold War, but it argues that while it is not possible accurately to predict the global security environment over the next 20 to 50 years there are worrying trends in international security that legitimate the retention of a minimum nuclear deterrence, namely nuclear proliferation and state-sponsored terrorists armed with nuclear weapons. This raises three key questions. The key question, even for those who accept the legitimacy of nuclear deterrence, is whether this is meant to imply that given the inherent unpredictability of international relations the UK will continue to require a nuclear deterrent in perpetuity.

6. Other than paragraph 2.12, the White Paper provides inadequate evidence as to whether the Government can envisage a situation where Britain does give up its nuclear deterrent. Does the Government believe that the possession of an independent nuclear deterrent is a temporary or a permanent feature of Britain’s strategic capabilities? If it is temporary, then what are the conditions under which such a capability would be surrendered? If it is permanent, then the case needs to be made, particularly given Britain’s Treaty obligations under international law.

7. The second key question is whether, post Cold War, deterrence will work: can those states and non-state actors that threaten UK security actually be deterred from undertaking acts of aggression by either existing or new approaches to nuclear deterrence? This needs to be much more fully argued than in the current White Paper. Beyond the acknowledgement that nuclear weapons pose “a uniquely terrible threat” and should only be used in “extreme circumstances”, and only then in a way “consistent with the application of the general rules of international law”, the White Paper offers only the pronouncement in paragraph 3.4 that: “We deliberately maintain ambiguity about precisely when, how, and at what scale we would contemplate use of our nuclear deterrent. We will not simplify the calculations of a potential aggressor by defining more precisely the circumstances in which we might consider the use of nuclear capabilities. Hence we will not rule in or out the first use of nuclear weapons.”
8. This deliberate ambiguity at the heart of the Government’s thinking is further spelled out in paragraph 3.11 when the White Paper notes: “Any state that we can hold responsible for assisting a nuclear attack on our vital interests can expect that this would lead to a proportionate attack.”

9. We acknowledge that there is merit in keeping potential enemies guessing. Nevertheless, given the grave ethical issues involved with any use or threat of use of nuclear weapons, it is legitimate to ask in a democracy, bearing in mind our obligations under international law, in what sorts of circumstances their use might be justified and proportionate in the terms of the just war doctrine. The White Paper gives inadequate treatment of that legitimate question which must be asked if the public debate is to be meaningful.

10. In our view the fear that making any further information about this publicly available would reduce the credibility of the UK’s deterrent is overstated. Such reticence might have been excusable at the height of the Cold War when the UK faced the massive Soviet nuclear arsenal, but is it acceptable in today’s circumstances? This position is not necessarily shared by other comparably sized nuclear powers, as evidenced by the readiness of President Chirac openly to discuss these issues. The modernisation and adaptation of the French nuclear arsenal to strike at a potential aggressor’s political, economic and military power centres in a comparatively discriminate way marks a significant departure from the “anti-cities” strategy of the Cold War. It is disappointing that a similar shift in strategy and a move towards greater public transparency is not reflected in the UK’s White Paper.

11. The third question left unasked and unanswered by the White Paper concerns the targeting strategy for these weapons. Can we be assured that the war plan for Trident, and any successor, will be based only and wholly on an explicit counter combatant targeting strategy, holding at risk military and related assets, and keeping non-combatant casualties to a proportionate minimum? This is a crucial question in the context of the ethical arguments against nuclear weapons which are strikingly omitted from the interesting essay BOX 3.1 setting out the government’s response to various counter-arguments. Since this is probably the most widely held objection to nuclear deterrence the omission is very curious.

12. The Government may wish to argue that the ethical challenge can be ignored on the grounds that deterrence has worked and will work, and so we do not need to enquire how. But that misses the key point. For deterrence to work there must be at least a possibility that the weapons might be used: that possibility, however remote, underpins the effectiveness of deterrence. If there were no circumstances in which the use of nuclear weapons would be morally permissible then there can be no ethically acceptable deterrence. To assess the validity of the deterrence argument, therefore, there must be some indication of the circumstances in which the weapons might be used.

13. Addressing this ethical concern would not require the Government to disclose details of targeting plans or precise details of the envisaged circumstances of use. All it would require is for the Government to indicate what is its overall strategy, including the parameters for the weapons’ use and any limits within which any targeting policy would be set. That would enable the Government to explain how their use would be consistent with the UK’s obligations in international law, as well as with ethical principles, in particular the just war requirements that any use of weapons should be proportionate to the objective to be achieved and discriminate in order to minimise non-combatant casualties.

14. In our view it would be extremely difficult—many in the Church would say impossible—to reconcile with just war requirements of jus in bello an “anti-city” strategy of the kind that was fashionable at the height of the Cold War. Now other more discriminate targeting options are in theory available and technically feasible in a way they were not in the early days of deterrence. Are they part of the Government’s thinking? It is crucial to know, if the debate on Britain’s nuclear deterrence policy is to be meaningful.

15. If the Government is not willing to engage in such discussions it leaves itself vulnerable to the charge from those opposed to nuclear deterrence that the use or very possession of nuclear weapons is immoral and somehow coarsens the moral fabric of the nation. If it is unwilling to say anything further about the terms under which it might use its deterrent, then how are Parliament and the wider public meant to evaluate the efficacy and utility of such an instrument, even assuming that they are prepared to accept the principle of nuclear deterrence? The Government therefore should set out the parameters for the use of the weapons and explain how they meet the UK’s obligations in international law and the ethical principles that underpin them. It is important to remember that the credibility of the national deterrence strategy depends to a significant extent on public backing since an assessment of that will itself play into the calculations of potential aggressors.

**ENSURING EFFECTIVE DETERRENCE**

16. The White Paper signals a redefinition of what the Government believes constitutes an acceptable minimum deterrence. The envisaged reduction in the numbers of operationally available warheads from fewer than 200 to fewer than 160 and a corresponding reduction in the size of the UK’s overall stockpile is to be welcomed as is the option of reducing from four to three the number of submarines. These developments underline the UK’s good track record—better than that of the other existing nuclear powers—in progressively reducing its capability in line with its NPT obligations.
17. However, the White Paper gives no explanation as to how this further 20% reduction in the UK’s warhead stockpile was reached. The figure appears to have been plucked out of the air with no indication given as to the criteria used and calculations involved. Would further cuts say of 25%, 35% or even 50% be possible without undermining the credibility of the UK’s deterrence?

18. What is missing from the White Paper is any definition of what constitutes an acceptable minimum deterrence and any explanation as to how this definition was reached. The Government needs to take advantage of the opportunity provided by the debate on the White Paper to explain the proposed reduction and to explore whether further cuts are possible. Are the 20% cuts at the upper or bottom end of the spectrum of what constitutes a minimum nuclear deterrent? Is it possible to retain a minimum deterrence with a cut of 50%? What criteria did the Government use to reach the proposed 20% reduction?

**Deterrent Options, Solutions and Costs**

19. We fear that the White Paper paints an unduly optimistic picture of the potential procurement costs for replacing Trident and the impact that this might have on either the annual defence budget or the UK’s conventional military capability.

20. In Section 5 of the White Paper it is estimated that the procurement costs for replacing Trident will be in the region of £15–20 billion (at 2006 prices) for four submarines and the associated equipment and infrastructure. It calculates that the procurement costs are likely on average to be the equivalent of around 3% of the current defence budget. How much confidence can be placed in these estimates? Evidence from the past is not encouraging: since Trident became operational in 1994, annual expenditure for capital and operating costs, including the costs for the Atomic Weapons Establishment, ranged between 3 and 5.5% of the annual defence budget.

21. The White Paper correctly points out in paragraph 5.12 that it is not possible to be sure what the size of the defence budget will be over the timescale involved. However, most defence analysts believe the long term reduction in the defence budget is very unlikely to be reversed, and many believe that defence spending could well fall further, probably to about 1.7% of GDP by 2020. If they are correct, then the procurement costs for replacing Trident seem bound to consume a larger proportion of the defence budget than predicted by the White Paper with the consequent knock on effect on the UK’s capacity to undertake other operations, including peace-keeping and stabilisation.

22. Any decision on the long-term future of Britain’s nuclear deterrence needs to take into account both the possible threats to our security and the capability of the British armed forces to respond effectively to those threats. The publication of the White Paper has occurred at a time when British armed forces appear increasingly stretched and over-committed in various peacekeeping operations. Public confidence has been shaken by media coverage that makes much of the perceived lack of basic equipment issued to those members of the UK’s armed services currently deployed overseas. Recent stories have also drawn attention to the inadequate quality of much military accommodation. All this has raised the question whether, rather than committing resources to replacing Trident to meet an uncertain future threat, the Government would do better strengthening and renewing Britain’s conventional armed forces for the threats and challenges that they are already facing.

23. Against this volatile background it is not sufficient for the White Paper merely to assert as it does in paragraph 5.15 that: “The investment required to maintain our deterrent will not come at the expense of the conventional capabilities our armed forces need”. The Government needs to provide more substantial argument and evidence that a decision to renew Trident will not put at risk the capability and capacity of Britain’s armed forces to undertake demanding military responsibilities outside its immediate neighbourhood, both now and in the future. At the very least, it should consider whether the initial costs of replacing Britain’s minimum nuclear deterrent could be met from a separately identified vote rather than from the current defence budget.

January 2007

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Memorandum from Scientists for Global Responsibility

**About SGR**

Scientists for Global Responsibility (SGR) is an independent UK membership organisation of approximately 850 science, design and technology professionals. Our main aim is to promote and support science, design and technology which contribute to social justice, environmental sustainability and the reduction of conflict. The issues raised by the potential replacement of UK nuclear weapons obviously have strong links with these concerns.
EXECUTIVE SUMMARY

SGR believes that the security of the UK—and the world—is best served by not replacing the Trident nuclear weapons system. We think that the case laid out in the White Paper is fundamentally flawed. Our reasons are summarised as follows, with more detail in the subsequent sections:

1. The UK faces no current or short-term threats against which nuclear weapons could conceivably be effective.

2. Trident replacement will undermine efforts to prevent proliferation of nuclear weapons thereby increasing both short- and long-term security threats.

3. A decision not to replace Trident could be a stepping stone to a more defensive military and foreign policy.

4. Security needs to be viewed in a broader context—threats such as climate change are far greater than conventional military threats.

5. With shortages in science and technology skills, these need to be deployed to maximise the benefit to society.

1. The UK faces no current or short-term threats against which nuclear weapons could conceivably be effective

Strategic nuclear weapons such as Trident had their origin in the Cold War where the aim was to counter a threat of nuclear devastation with an ability to respond in kind. This threat no longer exists and thus the original justification given for deploying Trident has been removed. Indeed, it is widely believed that the UK does not face “a direct or impending military threat from any of the established nuclear weapon states”\(^1\). There are also no major threats from large conventional military forces. The only current, significant weapons-based threat to the UK is from non-state actors, ie terrorists, and it has been acknowledged by Tony Blair that nuclear weapons are ineffective against such threats\(^2\).

The only argument left—which is the one used in the White Paper—is that of the “unknown”. That is, at some stage in the next 50 years, the UK will again face a nuclear-armed foe with the ability and intention to hit its shores. However, this is an argument which can be used by each and every nation in the world (in many cases with rather more credibility than in this country) and hence this argument needs to be balanced against the likelihood that others will see the UK’s actions as encouragement to pursue their own nuclear agenda—as discussed in the next section.

2. Trident replacement will undermine efforts to prevent proliferation of nuclear weapons thereby increasing both short- and long-term security threats

The White Paper argues that, despite the lack of a current major military threat, the UK needs to retain nuclear weapons for at least the next 50 years in case such a threat re-emerges. At the same time it denies that some other countries may use this argument to justify their interest in or acquisition of nuclear weapons. This hypocrisy has contributed to the stalling of the nuclear Non-Proliferation Treaty (NPT), which is currently the main instrument for controlling the spread of nuclear weapons. Under this treaty the UK (together with USA, Russia, China and France) is committed to pursuing negotiations towards complete nuclear disarmament. If the UK opts for Trident replacement, it will further undermine the treaty and increase the prospect of nuclear proliferation in the future. Indeed, recent legal opinion suggests that such action by the UK may actually be illegal\(^3\). Hence we believe Trident replacement will make the UK less secure.

SGR believes that the UK could and should use the opportunity afforded by considering the future of its nuclear weapons system to kick-start multilateral negotiations on the complete elimination of nuclear weapons. An important starting point would be to follow the recommendations of the Weapons of Mass Destruction Commission, chaired by Hans Blix, which were published in 2006\(^4\).

3. A decision not to replace Trident could be a stepping stone to a more defensive military and foreign policy

The UK is currently pursuing a heavily interventionist military and foreign policy which we strongly believe is failing to increase either UK or global security, not least in relation to Iraq. Such policies have undermined the UK’s position on the world stage and arguably increased the threat from terrorism. They are also leading to huge spending on new military technology, such as aircraft carriers, destroyers, submarines, fighter aircraft etc\(^5\).

The abandonment of Trident replacement could be the first step in a new policy which helps to restore the UK’s moral authority and allows us to take the lead in effective negotiations on international arms control and disarmament. It would also free up valuable resources which could be used for sustainable development and hence support international security.
As part of the process of realigning our military policy, the UK also needs to open negotiations with the USA to remove the 110 nuclear weapons that they currently deploy on aircraft on UK soil.

4. Security needs to be viewed in a broader context—threats such as climate change are far greater than conventional military threats

The debate on nuclear weapons and military policy in general needs to be seen in a broader context, especially given the major resources that would be required to build a Trident successor.

Currently, as acknowledged by the government, climate change represents a huge threat to human society both in the UK and across the world. The potential scale of casualties, refugees, economic damage and wider impacts of “business as usual” has been set out by many, not least the Intergovernmental Panel on Climate Change\(^6\), the World Health Organisation\(^7\) and the Stern Review\(^8\). However, the action being taken by government and society across the world does not come close to meeting that required. Even in the UK, which has championed the issue at an international level, carbon dioxide emissions are again on the rise\(^9\). It is disturbing that major resources are being considered for Trident replacement—to deal with such an unspecific threat—while resources devoted to tackling such a huge, scientifically well-established threat are still lacking.

SGR believes that the most effective security policy would give much greater urgency to reducing the UK’s greenhouse gas emissions and moving to a low carbon economy, and that this example would catalyse other countries to follow suit. The resources—financial, material and technical—that would have been used on a Trident replacement could make a key difference to success of such a strategy.

5. With shortages in science and technology skills, these need to be deployed to maximise the benefit to society

The White Paper says that it is the dwindling level of skills related to submarine design and manufacture that have been a key factor leading to a decision on Trident replacement being needed sooner rather than later. It has also been argued that the construction of a new nuclear weapons capable submarine fleet would create or secure thousands of skilled jobs.

However, such arguments need to be considered in a broader context as we have discussed in a previous submission to the Defence Committee\(^10\). The number of graduates in physical sciences and engineering has fallen considerably in recent years, despite the number of students in higher education increasing\(^11, 12\). This puts pressure on all sectors of the economy which depend on such skills. For example, a recent report from the Department of Trade and Industry (DTI) highlighted that the civilian, as well as the military, nuclear sector is facing skills shortages. Even without new nuclear power stations or Trident replacement, the report argued that the whole sector requires about 30,000 new skilled recruits over a 15 year period simply to deal with existing and planned activities, not least decommissioning\(^13\). Added to that, some other key sectors are planning major expansions. For example, the number of jobs in the renewable energy sector could expand by as much as 27,000 by 2020\(^14\). There is also major demand for skills in expanding energy efficiency measures. And there is also the huge programme on military technology planned for the conventional armed forces discussed in section 3.

SGR believes that it is essential that key expansions, such as that in the renewable energy sector, are not compromised in the rush to Trident replacement. As we have stated, climate change is much too serious a threat. Indeed, climate-related sectors are likely to provide job opportunities for those who would have to move if the UK decided not to retain nuclear weapons. For example, offshore wind, wave and tidal projects require marine engineering skills. Indeed, the government could initiate a comprehensive “defence diversification” programme to ensure local communities dependent on military industry were properly supported during transition. In this context, it is also important to bear in mind that many skilled staff will be retained in the military nuclear sector for many years even if a Trident successor is not built. For example, staff will be needed for submarine and warhead decommissioning and for the UK’s role in contributing to the monitoring of international nuclear treaties.

SGR believes that an added benefit of pursuing the policies laid out in this paper is likely to be an increase in student interest in the physical sciences and engineering as they become less associated with technologies with destructive capabilities.

REFERENCES

It is an apposite time for the British government to ponder the issue of replacing its existing nuclear deterrent. The nations of the world, led by the United States, and with the United Kingdom playing the loyal supporting role, are wrestling with the issue of North Korea becoming a bone fide possessor of nuclear weapons, despite the best efforts of the world community. Similarly the United Kingdom has been cooperating with its French and German partners to try and persuade Iran to place limits on its civilian nuclear programme and shy away from any attempt to also develop its own nuclear weapons.

At the same time the United Kingdom’s armed forces are struggling to meet their existing commitments. Ever since the new Chief of the General Staff, General Sir Richard Dannatt, raised queries about Britain’s deployment of forces in Iraq and the potential breaking of the army on this commitment there have been a series of public and private rebukes by serving and retired officers with the horror stories of defence housing being just the latest.

It is within this context that the Prime Minister made his statement to the House of Commons outlining the government’s case for maintenance of the British strategic nuclear deterrent. This statement, much of which had already been leaked, instantly received the full support of the Conservative opposition whilst the Liberal Democrats argued that no decision needed to be taken.

The statement and the accompanying white paper set out the government’s intention to replace the existing Trident force with three to four new submarines each equipped with updated Trident submarine-launched ballistic missiles at an estimated cost of £15–20 billion. In an attempt to placate the anti-nuclear
lobby within his own backbenches, Tony Blair also announced a further reduction in the overall size of the British nuclear arsenal from approximately 200 warheads to less than 160. In other words he effectively sought to standstill.

The justification for this decision was threefold. Firstly, Britain must have such a system; secondly, that a decision needed to be taken now; and thirdly that a new force of nuclear submarines equipped with Trident missiles was the most sensible way forward.

The need for an independent nuclear deterrent?

The government’s case although re-packaged remains the same as that confronting the Attlee government in 1946. Firstly, in an uncertain world, the United Kingdom needs to have the ultimate insurance policy that a nuclear deterrent is seen to bring.

It is just that, in the final analysis, the risk of giving up something that has been one of the mainstays of our security since the war, and, moreover, doing so when the one certain thing about our world today is its uncertainty, is not a risk I feel we can responsibly take. Our independent nuclear deterrent is the ultimate insurance.

The deterrence argument was easier to make when there was an obvious potential foe in the form of the Soviet Union. However, when, as the white paper suggests it involves non-state actors, such as al-Qaeda, it is far harder to justify and Blair argued in favour deterring would be supplier nations. This raises the question of whether the United Kingdom would ever be prepared to use nuclear weapons to punish a state whose regime has allegedly supplied nuclear material. It is extremely doubtful that any government could justify such a response, especially after Iraq and the dodgy dossier saga.

Secondly, that the retention of a Rolls-Royce system is needed if the United Kingdom wants to remain a major player in the international system. This is the classic “Boys and Toys” argument and was reinforced in Blair’s statement to the House of Commons by his reference to the other P5 members. Could any Prime Minister ever contemplate abandoning this prestige item, especially whilst the French retain an independent nuclear deterrent? The answer is clearly a resounding no and thus defence is potentially saddled with not a white elephant but a black submarine that nobody quite knows what to do with. In reality would any Prime Minister want to be remembered in history as the one who abandoned the nuclear deterrent especially if it is their successor’s that will have to foot the bill? Legacies remain an important part of politics and explain why Harold Wilson did a rapid u-turn in 1964 over the nuclear deterrent. More recently John Nott continues to associated with cutbacks to the Royal Navy that “were only saved by the Falklands War”. The reality was significantly different and few remember him as the Secretary of State for Defence who began the move towards expeditionary warfare and facilitated the reorganisation of the British Army’s approach to conventional warfare.

The Need to Replace Now

A number of statements have been made by politicians from various parties and spokespersons for various pressure groups about the timing issue. The government have argued that at best the Trident force can have its’ existing 25 year boat life extended by a maximum of five years which means that by 2024 it would become impossible to maintain a boat continuously at sea. The main argument that such a decision can be delayed has focused on the American decision to undertake a much longer life extension programme for their Trident boats—the Ohio class. According to this argument it follows that if the Americans can lengthen the life of their boats so can the British.

There are a number of weaknesses in this argument. Firstly, there are no direct comparisons. We may have a similar type of car to our neighbour but it does not mean that they will both last the same length of time. It is clear that the British and American boats are built to different designs, have differing safety requirements based on differing reactor authorising bodies and have been operated differently.

Secondly, the Americans have a greater number of boats which means if a fault does begin to emerge in one or two boats they will still be able to maintain their deterrent. The much smaller size of the British force means that there is little built in redundancy and such risks cannot be taken. This was clear at the end of the lives of the Polaris fleet which struggled to continue in service whilst the Vanguard-class was built. The government line is therefore plausible given the available information and the Liberal Democrat one nonsensical.

89 Idem.
THE CHOICE OF TRIDENT

The government’s white paper outlines four potential options and indicates that others were considered. These are a new fleet of Trident boats; a surface force of three large warships equipped with Trident missiles; a force of 20 civilian aircraft carrying an unnamed nuclear cruise missiles with its own dedicated tanker fleet; and a force of Trident missiles in hardened silos in the United Kingdom. The white paper argues that overall the most cost effective is a follow on to the existing Trident force.

However, there is a good deal of smoke and mirrors in these options and their associated costings. There are clearly a number of assumptions that have been made which are open to question. Considering each in turn:

1. Replacing Trident with Trident. The costings for this proposal do not include the long-term disposal costs. As the House of Commons Defence Committee have highlighted before the issue of long-term disposal of nuclear submarines has not been resolved and thus their associated costs are not included within the white paper’s calculations. Some external estimated have indicated that this is quite considerable.

2. Surface force of three vessels equipped with Trident missiles. The white paper dismisses this option based on vulnerability and the costs associated with protection. These seem logical but this solution usefully negates having to put forward the submarines equipped with cruise missile argument. According to the white paper this would involve having to develop a new cruise missile. This is somewhat surprising given that the existing SSN force is equipped with Tomahawk Land Attack Missiles which could be modified to carry a nuclear warhead—the Americans equipped their submarine force with an earlier variant equipped with nuclear warheads during the latter part of the Cold War—or alternatively the French are acquiring a Storm Shadow variant for their submarine force. This could have its conventional warhead replaced by a nuclear one.

3. The civilian airliner option make a number of assumptions that seem designed to inflate the cost. Firstly, why would a new air base need to be built? The RAF is currently in the midst of a major base realignment programme which is aiming to reduce its number of bases. Secondly, why does the cruise missile have to be a new one, why not just design a nuclear warhead for the Storm Shadow cruise missile that is currently entering service? Thirdly, why does the platform have to be a new civilian airliner, what about extending the Nimrod MRA4 production line and thus reducing the overall unit cost for the current Nimrod update programme? Fourthly, why has the range requirement risen so sharply compared to the existing trident force or its predecessors? Is this simply to ensure the need for a dedicated tanker force and thus raise the costs further? Fifthly, what compensatory savings would result from the Royal Navy shifting away from nuclear powered submarines?

4. Land based Trident missiles. The UK abandoned the idea of a land based system when it cancelled the Blue Streak intermediate-range ballistic missile. Vulnerability is a big issue and avoiding this option is a sensible one.

THE STATE OF DEFENCE

It would appear that the Trident replacement decision is now a foregone conclusion. Even if there is a significant backbench revolt amongst the Labour Party the Conservatives will ensure any vote is passed with the necessary majority. The white paper estimates that the cost of replacing the existing system as less than 5% of the defence budget thereby implying it isn’t too much. Yet Tony Blair himself has called for an increase in defence spending.

A number of issues remain to be settled. Firstly, is this “small” amount an addition to current defence spending plans or to be found from within them? Given the concerns expressed by a number of senior serving and retired officers” about the state of Britain’s conventional equipment and service housing the nuclear decision may become the straw that breaks the camel’s back when it comes to the military covenant.

Secondly, the replacement issue remains an element of where Britain fits within a post-Blair international system. Does it want to remain closely aligned with the United States using its military as a major lever of foreign policy or is time to rethink where Britain actually fits and what it stands for?

18 January 2007

Memorandum from Greenpeace

The White Paper CM 6994 on the future of the United Kingdom’s nuclear deterrent lacks factual backing in a number of key areas such as those of the nature of any perceived future threat, cost, and the design of submarine.

Prime Minister Tony Blair states in the foreword to the White Paper:

“Those who question this decision need to explain why disarmament by the UK would help our security. They would need to prove that such a gesture would change the minds of hardliners and extremists in countries which are developing these nuclear capabilities. They would need to show that terrorists would be less likely to conspire against us with hostile governments because we had given up our nuclear weapons. They would need to argue that the UK would be safer by giving up the deterrent and that our capacity to act would not be constrained by others.”

Greenpeace UK would argue that before taking this important decision the opposite is the case and that the onus is on the UK government to show how possession of nuclear weapons has in the past or would in the future protect us against terrorists, hardliners and extremists, would halt countries such as North Korea from continuing to develop their nuclear capability and how such countries are likely to threaten or have any reason to attack the United Kingdom.

Has the possession of nuclear weapons by Britain and the United States halted the Taliban in Afghanistan or insurgents in Iraq? This White Paper fails to convincingly provide any justification for the continued need for Britain to possess nuclear weapons and fails to outline any realistic threats to the United Kingdom in the near or distant future.

Furthermore, the justification used throughout the White Paper that there are still close to 30 thousand nuclear weapons in the hands of an elite few is an insufficient reason for deciding to retain a nuclear arsenal. If all countries took that approach, as North Korea has, we would end up in a nuclear free for all.

Given all the uncertainties that remain in the Government’s White Paper Cm 6994, the clear lack of any justification for Britain retaining any form of nuclear weapons system, and our legal obligation under the nuclear Non-Proliferation Treaty, Greenpeace UK believe that the Government’s pursuit of a replacement system to Trident is ill-considered, unnecessary and illegal.

SECTION 2: THE POLICY CONTEXT

1. Government’s over-arching policy on nuclear weapons remains unchanged from that outlined in the 1998 Strategic Defence Review yet much has changed in the world in those nine years.

2. Much was made in the White Paper that the actual physical number of UK nuclear warheads has declined and that our stockpile accounts for “less than 1% of the global inventory” and that it is “the smallest”. Whilst physical numbers have changed, the actual capability of Britain’s nuclear weapons stockpile has increased. Trident has increased greatly the range and accuracy of the UK nuclear stockpile, whilst the potential arsenal carried by a Vanguard submarine on patrol remains unchanged despite any wider stockpile changes proposed in the White Paper.

3. No account has been taken in the White Paper of the international implications on the international nuclear non-proliferation and disarmament arena. Please see separately Appendices A-C for Greenpeace’s position regarding the relationship of the White Paper to international and humanitarian law.

4. One of the principal objectives of the nuclear Non-Proliferation Treaty (NPT) as stated in its preamble is that its signatories declared “their intention to achieve at the earliest possible date the cessation of the nuclear arms race and to undertake effective measures in the direction of nuclear disarmament”.

and that:

“Desiring to further the easing of international tension and the strengthening of trust between States in order to facilitate the cessation of the manufacture of nuclear weapons, the liquidation of all their existing stockpiles, and the elimination from national arsenals of nuclear weapons and the means of their delivery pursuant to a Treaty on general and complete disarmament under strict and effective international control.”

5. This is reflected also in Article VI of the NPT which states:

“Each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a Treaty on general and complete disarmament under strict and effective international control.”

Yet, how can one say that the UK is abiding by the NPT when a matter of months before its signatories meet to discuss its future at the NPT Preparatory Committee (PrepCom) meeting at Geneva in May 2007, it has decided to retain an operational nuclear arsenal until at least 2040?

6. In 2000 NPT member States met to review progress on achieving the aims and objectives of the treaty. Britain along with the other four nuclear weapon States agreed to implement 13 “practical steps for the systematic and progressive effort to implement Article VI”. These commitments included further efforts to reduce their nuclear arsenals unilaterally, concrete measures to further reduce operational status of their nuclear arsenals, increased transparency and a diminishing role for nuclear weapons.
7. Yet when NPT member States met in 2005 they failed to reach agreement on any way forward on the 13 steps to bring about a world free of nuclear weapons. One of the fundamental issues at that and every other year they have met is the failure by the five recognised nuclear weapons States to take any meaningful steps to disarm.

8. The intentions in the White Paper will be used as yet another example by the more than 180 countries who are NPT member States and do not have nuclear weapons of gross hypocrisy and a clear lack of commitment to Article VI of the Treaty and the 13 practical steps agreed to in 2000.

9. Admitting, as they do in paragraph 7–4, that the UK will be working with the US on a new nuclear warhead for their replacement system will certainly ensure that the UK government’s repeated assurance in the White Paper that they are “committed to working towards a safer world in which there is no requirement for nuclear weapons” will fall on deaf ears.

10. Whilst all the measures outlined in Box 2.1 are laudable the reality is that all international fora concerned with nuclear proliferation issues are stagnated. For example, the Conference on Disarmament, the only UN body with a mandate to negotiate universal treaties on these important issues, has done no significant work since it completed the Comprehensive Test Ban Treaty in 1996.

11. In the policy area of “counter-proliferation” the UK government is also applying a double standard. The White Paper refers to the 40 members of the Nuclear Suppliers Group (NSG) having the “technical ability and means to initiate a viable nuclear weapons programme” yet they have done nothing to stop, and have in fact encouraged, the continued reprocessing of spent nuclear fuel and the return of an essential ingredient of nuclear weapons, namely plutonium, to countries such as Japan.

12. Also through the NSG the UK government has sat silent watching the United States (a member of the NPT) and India (a possessor of nuclear weapons and not a member of the NPT) cement a nuclear cooperation agreement that will inevitably free up nuclear material and technology in India so they can concentrate on developing further their nuclear arsenal outside of international control.

13. If the UK government were serious about its “counter-proliferation” obligations it would stop allowing the selling of nuclear technology, reprocessing of spent nuclear fuel and decide to use its diplomatic and political influence to halt such matters as the nuclear deal between the US and India.

SECTION 3: NUCLEAR DETERRENCE IN THE 21ST CENTURY

1. The 2003 Defence White Paper, Delivering Security in a Changing World confirmed and extended a new direction for British military thinking, with the focus on expeditionary operations, effects-based warfare and “Network Enabled Capability” (NEC), aimed at countering threats from terrorism and asymmetric warfare.

2. As then Defence Secretary Hoon said in the foreword:
   “Our focus is now on delivering flexible forces able to configure to generate the right capability in a less predictable and more complex operational environment . . .”

3. Greenpeace UK would argue that there is nothing “flexible” about nuclear weapons and that their continued possession does not fit with the new British military thinking outlined in the 2003 Defence White Paper.

4. Some significant changes from the Strategic Defence Review of 1998 and the updated “New Chapter” following 11 September 2001 attacks were notable. In particular British military thinking now included a goal of being able to sustain three concurrent small-medium operations instead of two, of which one would be a long-term peace support operation. Geographically, while the SDR expected that the key areas of operations outside Europe would be the Mediterranean and Gulf regions, the White Paper envisaged operations further afield, especially South Asia and Sub-Saharan Africa.

5. The 2003 White Paper envisaged that most operations would be in coalitions, although Britain would be prepared to take the lead role in those in which the US is not involved. However, large scale operations—against state adversaries—would only be undertaken as part of a US-led coalition. Thus, interoperability with US forces, both in terms of technology, doctrine and operational tempo, are given a high level of importance.

6. As a result, the 2003 White Paper called for new equipment and organisation to fill this new role including new giant aircraft carriers and a Joint Combat Aircraft to enable Britain to project power from sea to land. Other programmes include the Future Rapid Effects System (FRES) family of medium-weight land vehicles designed to increase the capability for rapid interventions.

7. The capability to defend against a major conventional threat to the UK or its allies was no longer considered as necessary in the 2003 White Paper although “the continuing risk of proliferation of nuclear weapons” was briefly noted.

8. Now, three years later, the Government are stating, without any factual back-up, that we need to have a new nuclear weapons system because “we cannot rule out, over the 2020–50 timescale, a major shift in the international security situation which puts us under threat” of nuclear attack.
9. Greenpeace UK would agree that as long as there are nuclear materials and technology available and that nuclear weapons are regarded as being essential to the security of a few nations, there will remain a risk of further proliferation of nuclear weapons.

10. Another rationale used to justify possession of a nuclear arsenal is increased pressure on natural resources such as energy and water creating international instability and risk of interstate conflict. They also include in the list increases in population, global economic development and climate change as possible factors in creating instability.

11. We fail to see how nuclear weapons will halt the impacts of climate change, ensure adequate birth control for the world’s poor or make any nation economically richer and not poorer. We also fail to see how a British nuclear weapons system has even been a factor in stopping atrocities such as that occurring in Darfur.

12. The rationales outlined in the White Paper that because of the “continued existence of large nuclear arsenals, the possibility of further proliferation of nuclear weapons in combination with the risk of increased international instability and tension” Britain still needs nuclear weapons are, we would argue, exactly the rationales for why Britain should do its utmost to eliminate them.

13. Needed now are not new rationales for possessing nuclear weapons but increased diplomatic effort and initiatives to rid the world of nuclear weapons, materials and technology. A greater concentration of efforts by the UK government on other military tasks such as humanitarian assistance and response and peacekeeping would demonstrate a deeper commitment to the goals of peace and security.

SECTION 4: ENSURING EFFECTIVE DETERRENCE

1. The White Paper states that:

“If they are to have the required deterrent effect, our nuclear forces need to continue to be credible against the range of risks and threats described in Section 3.”

2. As argued above, Greenpeace UK reiterate that British nuclear weapons are not a credible weapons system to combat risks and threats such as interstate conflict or the impacts of climate change. The idea that at some point in the future a Dr Strangelove figure will appear, develop a secret nuclear arsenal and threaten the UK with it is somewhat unrealistic.

3. Greenpeace is concerned that the Government continues to view the facility of an adjustable yield on the warhead as a benefit, as stated in paragraph 4.9. Being able to adjust the yield downwards lowers the nuclear threshold, making nuclear conflict, and the use of nuclear weapons against non-nuclear states, more likely. Perception of the nuclear arsenal as therefore more “useable” only serves to destabilise global security, provoke proliferation, and heighten the possibility of nuclear use. Greenpeace would welcome the Committee seeking a further elucidation of the Government’s position on this shadowy area of strategy and warhead development.

SECTION 5: DETERRENT OPTIONS, SOLUTIONS AND COSTS

1. The White Paper states that the procurement costs will “need to be refined as the concept and assessment phases is taken forward with industry” and that more “accurate cost estimates” will only be available when they come to place a contract for the new submarines in five to seven years time. The Government then states rather boldly that their initial estimate of the cost is £15–20 billion at today’s prices.

2. Greenpeace UK suggests that the Defence Select Committee revisit their own inquiries and those of the National Audit Office on the vast cost overruns of the Trident system to remind themselves how unlikely it is that this will be the actual cost and that in fact, as history shows, it is likely to be much higher.

3. A recent example was the two new aircraft carriers which are not as technically challenging as building an SSBN. Initial Gate approval for the carriers was given in December 1998, with Main Gate approval originally intended for 2003–04, but the Assessment Phase was extended in 2004. The project has now moved from the Assessment to the Demonstration phase, but with no new date set for full Main Gate approval, which will be required before the Manufacture phase can begin. Originally, the Assessment Phase was forecast to cost £118 million, but this figure has increased to £300 million. The intended in-service dates for the two carriers were originally 2012 and 2015. The House of Commons Defence Select Committee, in December 2005, suggested that the planned in-service date may now be delayed, and described the lack of a target for Main Gate as “extraordinary”. and that nuclear materials and technology available and that nuclear weapons are regarded as being essential to the security of a few nations, there will remain a risk of further proliferation of nuclear weapons.

4. As the White Paper itself admits in Section 6:

“Designing and building new SSBNs and integrating them with other elements of the overall system, will be a significant technical challenge for the Ministry of Defence and for industry.” and that SSBNs are:

“one of the most complex and technically demanding systems in existence.”
5. Greenpeace UK reiterates that such a high risk strategy with unknown future financial outlay would be ill-advised even if there were proven to be a real need.

6. The White Paper also fails to adequately take into account and underestimates the associated costs of supporting infrastructure required such as those of warhead construction and maintenance that can also prove to be substantial if new warheads and facilities are required.

7. On top of the acquisition costs there are also the operational and maintenance costs, which the White Paper estimates at up to 6% of the current Defence budget, which would mean £1.8 billion per year.\(^{v}\) This is a considerable increase on previous figures for Trident itself, and is driven by increased spending at the Atomic Weapons Establishment at Aldermaston (AWE), which the White Paper expects to continue and indeed increase further.

8. However, this does not cover all costs associated with maintaining and operating the UK’s SSBN fleet. A 1998 estimate by Scottish CND, based on Parliamentary answers, also included allowances for the cost of conventional forces assigned to the defence of Trident (£303 million), plus other costs (£60 million, including an allowance for major refits over the 30-year life span), giving £440 million per year in 2006 prices\(^{vi}\). In line with the general tendency to increasing costs, it is likely that this figure would be somewhat higher for a Trident replacement, but the figure also gave the high-end estimate for the cost of the conventional forces assigned to the defence of Trident. On this basis, our preliminary research indicates a total figure of around £2.24 billion per year simply for operational and maintenance costs. Over 22 years, this gives a total cost, for procurement and operations, of £75.5 billion, which is very close to estimates produced by other recent studies. Greenpeace is presently preparing a full briefing on the costs of Trident Replacement, which it will provide to the Committee at the earliest opportunity.

9. We also find it incredulous that the Government is expecting to take a vote on a future replacement system for Trident in March of this year when the White Paper, paragraph 5.15, clearly states that:

> “Decisions on the level of our investments in nuclear and conventional capability will be taken in the Comprehensive Spending Review . . .”

Surely it would be prudent to defer any decision until the outcome of the CSR is clear and thereby the UK can establish if it can afford a replacement.

**SECTION 6: INDUSTRIAL ASPECTS**

1. There are several areas here that should be of concern to the Defence Select Committee and Parliament as a whole that need further elaboration than currently contained in the White Paper.

2. Firstly, as noted above:

> “Designing and building new SSBNs and integrating them with other elements of the overall system, will be a significant technical challenge for the Ministry of Defence and for industry.”

and that SSBNs are:

> “one of the most complex and technically demanding systems in existence.”

3. The White Paper also highlights the fact that there was a failure in the early design stages to be able to build the Astute class at the original estimated cost but that lessons “have been learnt”. However, the White Paper also states that “more change is needed for industry to be able to deliver”.

4. This is further justification as to why any decision to replace the Trident system at this juncture would be ill-advised and premature until industry can prove to the satisfaction of Parliament that they can actually meet this complex and technically demanding challenge. Particularly, given that the White Paper estimates it will take seventeen years for the first new submarine to go out on its first patrol and it will be the early 2020s when they start to retire Trident. If you follow the 25 year until retirement timeline of logic, however, this is reduced to retiring HMS Vanguard in 2019 as it went on its first patrol in 1994.

5. Whilst in Section 4 it is argued that there is a need for the UK’s nuclear forces to remain “fully operationally independent” another concern for the Committee should be that the White Paper suggests that there is no guarantee that the replacement submarines will be built in the UK. This will be “dependent on proposals from industry that provide the right capability at the right time and offer value for money”.

6. Does this leave open the possibility that any replacement submarine could be built by a US or South Korean shipyard? After all, the White Paper states that the MoD will buy “some sub-system elements from overseas”. In this case, over the lifetime of the system we could find Britain’s “independent nuclear deterrent” not being able to function because of a failure of an overseas supplier to replenish components or to service the “sub-system” that they supplied.

7. Another area of huge financial uncertainty is the final decommissioning costs of Vanguard or any replacement system. However, having already decommissioned their predecessor, Polaris, surely the White Paper should be able to provide at least a rough ball park estimate for decommissioning an SSBN?
SECTION 7: FUTURE DECISIONS

1. The White Paper states that a decision on whether a new warhead will be required or the existing one should be refurbished is “likely to be necessary in the next Parliament” and that a detailed review is to be undertaken with the assistance of the United States.

2. Another economic and political uncertainty is the need for a continuous supply of tritium for both the existing warhead stockpile and any future design as the tritium-producing Chapelcross reactors have been closed down since early 2004. Questions need to be asked and answered about when the UK tritium supply will run down, what alternatives there are and what the economic cost of this could be.

3. Another area of uncertainty is that in the 2002 Health and Safety Executive Nuclear Installations Inspectorate review of the Rolls Royce decommissioning strategy, the Rolls Royce Submarine Fuel Manufacturing plant in Derby was due to be closed in 2017 and the Neptune reactor design facility in 2013. This may have economic and political implications on any future decision and also requires clarification.

4. In May of 2006 British Nuclear Group were awarded a 36 year contract worth £230 million to store submarine spent nuclear fuel. However, this fuel is not processed in any way and a decision will have to be taken on how to treat and store it in the long term which will certainly have cost implications that require factoring into any future decision on a replacement system.

5. What to do with existing submarine nuclear reactors stored at Devonport and Rosyth remains another question awaiting answer particularly as it is estimated that storage capacity will run out in 2020. The only site so far identified has been RNAD Coulport which is currently used to store Trident warheads. If this site were to be chosen there are issues over how the replacement system and any future submarine reactor would co-exist.

6. Given the other uncertainties outlined above with costs and industrial capabilities of building an SSBN it would be prudent to defer until everything is completed and a clearer picture is presented on a whole system before taking any decision on whether or not to proceed with a new SSBN, rather than just one part of it.

RECOMMENDATIONS

1. Greenpeace recommends that no final decision should be taken until after a genuinely full, informed and open public debate takes place, as promised by the Government, which should include further detailed inquiries by the Defence Select Committee and initiation of inquiries by the Foreign Affairs Select Committee.

2. Until such time as this debate is concluded, Greenpeace recommends that Trident be taken off patrol, and its warheads removed to an internationally monitored storage site. Alongside the deferral of any plans to develop a new nuclear weapons system, these would serve as confidence-building measures and enable the UK to take a lead in strengthening existing disarmament treaties and provide the platform to kickstart multilateral nuclear disarmament negotiations.

REFERENCES

i The “Initial Gate” approval point for a project allows the project to proceed to the Assessment Phase, which considers different alternative procurement possibilities and comes up with a preferred option. “Main Gate” approval allows the project to move to the Demonstration and Manufacture stages.

ii Under the Smart Procurement Initiative (SPI) process, Initial gate occurs at the end of the Concept Stage, before the commencement of the Private Finance Initiative (PFI) procurement process. Main Gate is an exacting approval hurdle, between the Assessment and Demonstration Stages http://www.ams.mod.uk/ams/content/docs/ils/ils_web/ismsgt/mg.htm

iii “Future Aircraft Carrier project moves to next phase as assembly plans are agreed”, MoD http://www.mod.uk/DefenceInternet/DefenceNews/EquipmentAndLogistics/FutureAircraftCarrierProjectMovesToNextPhaseAsAssemblyPlansAreAgreed.htm


vi Cm 6994, p 27.

vii According to Scottish CND http://www.banthebomb.org/archives/magazine/nfs992l.htm. Defence Secretary George Robertson emphasised that the figures he gave for forces committed to Trident did not represent the cost that could be attributed to Trident, as these forces had other duties as well; however,
it would be hard to argue that there is zero marginal cost. Dr Ainslie assigned the full cost of forces "committed" to Trident, and 30% of the cost of "contingent" forces. This figure is therefore open to debate, but is not outrageous.

A review by the Health and Safety Executive’s Nuclear Installations Inspectorate of the strategy of Rolls-Royce Marine Power Operations Ltd for the decommissioning of its nuclear sites, 22 May 2002
http://www.hse.gov.uk/nuclear/qqreview/rrqqr.htm

22 January 2007

APPENDIX A

The Trident White Paper and International and Humanitarian Law

1. Greenpeace notes that the intention of the Defence Committee is to inform “robust and thorough” parliamentary and public debate on the arguments put forward by the Government for the retention and renewal of the UK’s current Trident system.

2. Greenpeace also notes that The Defence Committee inquiry will consider the arguments put forward by the Government for the retention and renewal of the UK’s current Trident system and “will consider the international treaty implications of the Government’s decision to retain and renew the deterrent and the possible impact of the decision on the UK’s non-proliferation efforts.”

3. Greenpeace agrees that there should be a full public debate and that that debate should include a thorough examination and analysis of the position at international customary law as well as under international treaties. For that reason it has commissioned an advice from Philippe Sands QC and Helen Law, on the legal issues, a copy of which is attached. The summary of the advice appears on page 3 and is not repeated here.

4. The advice was written before the publication of the White Paper and copies were sent to the Prime Minister, the Attorney General, the Secretary of State for Defence, and the Secretary of State at the Foreign and Commonwealth Office. The legal analysis and the concerns raised about the risk of breach of international and humanitarian law remain relevant to the proposals in the White Paper.

5. In particular, we would draw your attention to the views of Sands and Law about Article VI of the NPT.

6. The objective of Article VI is total nuclear disarmament.

7. The Sands/Law advice is that “attempts to justify Trident upgrade or replacement as an insurance against unascertainable future threats would appear to be inconsistent with Article VI”.

8. This is what is said in the White Paper:

“It is not possible accurately to predict the global security environment over the next 20 to 50 years. On our current analysis, we cannot rule out the risk either that a major direct threat to the UK’s vital interests will re-emerge or that new states will emerge that possess a more limited nuclear capability, but one that could pose a grave threat to our vital interests . . . We have thus decided to take the steps necessary to sustain a credible deterrent capability in the 2020s and beyond.”

9. The Government’s decision now to replace nuclear weapons in 15 years time in case of a future, as yet unascertained risk is a clear signal that the UK has no intention of abiding by Article VI.

10. This is not altered by the fact that the decision is also to reduce the stockpile of operationally available warheads to fewer than 160. Kofi Annan in his speech of 28 November 2006 (a copy of which is attached) said that:

“Some States seem to believe they need fewer weapons, but smaller and more useable ones / and even to have embraced the notion of using such weapons in conflict. All of the NPT nuclear-weapon States are modernising their nuclear arsenals or their delivery systems. They should not imagine that this will be accepted as compatible with the NPT. Everyone will see it for what it is: a euphemism for nuclear re-armament.” (our emphasis)

11. If the UK’s decision is not accepted as compatible with the NPT then it is possible that it will be viewed as a material breach of the treaty, thus permitting other states to withdraw from or suspend the NPT. Hence, a decision now to renew Trident will result in undermining the Treaty which, through reducing the risk of proliferation, has done most to safeguard security. Such an undermining may even provide state parties with a justification for suspending the Treaty and acquiring their own nuclear weapons.

12. These serious concerns about legality have effectively been dismissed, without analysis, in The White Paper which simply says that:

“Renewing our minimum nuclear deterrent capability is fully consistent with all our international obligations.”

13. Greenpeace asks that the advice upon which the Government has reached its conclusion that their decision is consistent with international obligations be made available. Without it a thorough debate and analysis is not possible. Greenpeace draws the Committee’s attention to the Information Commissioner’s view that “When Government chooses to publish a statement which was intended to be seen as a clear
statement of the legal position the Government was adopting, there is a public interest in knowing the extent to which it had been based on firm and confident analysis and advice, or was at least consistent with what had gone before.”

14. The Government accepts that it does not have a “free hand” in developing new weapons systems. It accepts it is bound by principles of international law which place limits on the ways in which war can be waged, and hence on the weapons which can be used and by Treaty obligations. Faced with expert legal opinion that its decision could be illegal and undermine the NPT, the Government should open that decision for full consideration and public debate.

22 January 2007

Memorandum from the Acronym Institute for Disarmament Diplomacy

SUMMARY

1. The Government’s White Paper on The Future of the United Kingdom’s Nuclear Deterrent to the House of Commons, was introduced to the House of Commons on 4 December 2006. It employs a succession of unsubstantiated assertions and circular arguments. Not only does it fail to make a convincing military or political case to justify retaining the current, cold-war-designed Trident nuclear system, but it then argues for procurement of a similar submarine-based system.

2. The Trident Lite option would carry UK nuclear weapons beyond 2050. The “20% reduction” in the “stockpile of operationally available warheads” [p 8 and Section 2] looks good, but though the new ceiling of 160 makes a probable virtue of necessity, it will not satisfy other parties to the Nuclear Non-Proliferation Treaty (NPT). As detailed below, this “reduction” may not require any actual reduction of the current stockpile. Most importantly, this offer does not imply any reduction in the number of nuclear weapons deployed on the submarines when they go out on patrol.

3. The possibility of commissioning three rather than four submarines is canvassed, but the UK’s deployed nuclear forces are likely to remain at current levels. The White Paper supports the MoD desire to retain the current “continuous deterrent patrolling” at sea, which it argues is essential for “invulnerability and assuredness” and to “motivate the crews”.

4. In pushing to renew Trident the White Paper ignores the growing body of analysis and intelligence that indicate that perpetuating nuclear weapons will undermine rather than enhance our national and international security, especially in view of potential proliferation and terrorist risks.

5. A decision this year is premature. It is neither necessary nor desirable to vote on the White Paper in March. MPs need to ensure that the full consultations that were promised are carried out before they vote. In view of the importance of getting Britain’s nuclear policy right, the very least that MPs should demand is that the government undertakes a comprehensive security and defence review that combines the perspectives of foreign affairs, defence, non-proliferation and international law, with representation from civil society and security practitioners.

6. The White Paper provides no consideration of practical options for non-nuclear deterrence and does not seriously engage with the fundamental questions relating to common security, deterrence or reducing nuclear dangers. It parodies alternatives, and dismisses without adequate discussion some compelling arguments about the positive role Britain could have in devaluing nuclear weapons and creating the conditions to facilitate more effective multilateral disarmament.

7. Nuclear and conventional weapons are juxtaposed as if these were the only defence tools available. Though it relies on a projection of new or “unknown” threats, the White Paper glosses over 21st century complexities and dumbs down consideration of alternatives to nuclear weapons. It simultaneously claims Britain’s importance, for example as an “independent centre of nuclear decision-making”, while implying that the UK is just a passive bystander, incapable of influencing the security and non-proliferation environment if we took a decision to renounce nuclear weapons.

8. Warheads with smaller yields may contribute to the government’s statistic of reducing “the overall explosive power of its nuclear arsenal [from the height of cold war levels] by around 75%” [2–5], but

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93 The page numbers in brackets and all quotes used as sub-heads in the detailed critique are taken from the government White Paper, The Future of the United Kingdom’s Nuclear Deterrent, issued by the Ministry of Defence and Foreign and Commonwealth Office, Cm 6994, published 4 December 2006.

94 The White Paper dismisses suggestions from naval experts and other analysts that continuous at-sea patrols are not necessary. In holding open the possibility of building only three new submarines, the MoD’s premise is that enhancements in submarine (and reactor) design would make it possible to have at least one submarine on patrol, even with only three submarines.

95 Some of the arguments below are drawn from the detailed discussion of the Trident decision published by the Acronym Institute before the White Paper was issued. See Rebecca Johnson, Nicola Butler and Stephen Pullinger, Worse than Irrelevant? British Nuclear Weapons in the 21st Century, London, October 2006.
deploying such smaller warheads for “sub-strategic” purposes may also lower the threshold of nuclear weapon use, and so increase threats and dangers, and contradict the government’s assurance that nuclear weapons are not intended for use in conflicts.

9. Contrary to the White Paper’s assertions, neither renewing Trident nor the uses of nuclear weapons envisaged in UK doctrine and policy would be compatible with the UK’s international and legal obligations, particularly under humanitarian law and the Non-Proliferation Treaty (NPT).

10. The White Paper associates Britain’s continued possession of nuclear weapons with deterring hostile forces that might arise over the next 20–30 years, particularly “re-emergence of a major nuclear threat”, “emerging nuclear states”, or “state-sponsored terrorism”. Such potential dangers should undoubtedly be of concern, but the government signally fails to explain how UK nuclear weapons will deter either the development of such threats or the use of nuclear weapons against Britain or others.

11. Contemporary analyses of the kinds of potential aggressors identified in the White Paper conclude that they are unlikely to be deterred by nuclear weapons; on the contrary, their game plan may be to provoke a nuclear or similarly disproportionate retaliation, so states with nuclear weapons could well be putting themselves at greater risk of a devastating WMD attack. Then what do we do? Play into terrorists’ hands by launching Trident? The White Paper talks vaguely of influencing states that might assist a nuclear terrorist. How? Whomsoever we chose to target in a retaliation, UK nuclear weapons would make any situation worse and could kill hundreds of thousands of non-combatants. Such a threat is not sufficiently credible to deter—and if we were actually to carry it out, we would be condemned across the world.

12. The most sensible way to reduce the dangers from the kinds of developments evoked in the White Paper would be to devalue nuclear weapons in all their aspects and make more coherent and concerted efforts to keep the weapons and materials out of circulation. This conclusion was compellingly drawn in a recent op-ed in the Wall Street Journal by a very eminent group of former US policymakers, including Secretaries of State Henry Kissinger and George P Schulz, Defence Secretary William J Perry, and the architect of the Cooperative Threat Reduction programme, Senator Sam Nunn. Coming from diverse political backgrounds, they all agreed that the world needed now to build “a solid consensus for reversing reliance on nuclear weapons globally as a vital contribution to preventing their proliferation into potentially dangerous hands, and ultimately ending them as a threat to the world”.

13. Section 6 deals with Industrial Aspects, but fails to address the problems with BAE and the Barrow shipyard, and gives short shrift to the expensive, difficult—and unresolved—issues relating to decommissioning and disposal, especially regarding radioactive materials used in the current as well as any future nuclear weapon system. These issues must be addressed before any decision is made to procure a further nuclear system that would likely exacerbate current difficulties.

SUBSTANTIVE CRITIQUE OF THE WHITE PAPER’S MAIN ASSUMPTIONS, CLAIMS AND CONCLUSIONS

“it will take around 17 years to design, manufacture and commission a replacement submarine” [p 6 and Section 1].

14. The White Paper distorts the facts when it pushes for a decision to be taken now. The current Vanguard-class submarines have a longer life expectancy than the government is now claiming.96

15. The White Paper’s recommendation is for three to four similar submarines equipped with more robust nuclear reactors than the Vanguard-class. This reactor has already been developed and tested, so only very bad management would entail a 17-year construction schedule.

16. The government qualifies its “intention to build the new SSBNs in the UK”, saying “this is dependent on proposals from industry that provide the right capability at the right time and offer value for money” [6–3]. BAE is mired in corruption scandals and the Barrow shipyard is behind in fulfilling its current contract for Astute-class submarines, so there is the risk that a hasty decision could compound the problems and might result in corners (including safety) being cut on the Astute or Trident programmes. Alternatively, in view of Barrow’s problems, the order may go to a foreign (probably US) shipyard instead, despite use of the “jobs argument” to garner support for renewing Trident.

“Since 1956, the nuclear deterrent has underpinned our ability to [secure international peace and security] . . . it has been used to deter acts of aggression against our vital interests, never to coerce others.” [p 6]97

17. Though it has been convenient for many in the UK to treat the assertion that Britain’s bomb deterred the Soviet Union as a “truism”, it is open to serious question in light of documents from the Soviet era that are now becoming available. At best, the proposition is unknowable. We can only speculate about the relative weight to accord various Cold War variables, but there is no credible way to demonstrate the significance—or not—of nuclear weapons per se.


97 All quotes used as sub-heads are taken from the government White Paper, titled The Future of the United Kingdom’s Nuclear Deterrent, issued by the Ministry of Defence and Foreign and Commonwealth Office, Cm 6994, published 4 December 2006.
18. Labelling a succession of different kinds of nuclear weapons “the nuclear deterrent”, as repetitiously done in the White Paper, may bind the concepts of nuclear weapons and deterrence together linguistically, but it does not say anything about the real world or create a logical or factual connection if one does not exist. Naming a cat “dog” does not confer the ability to bark. Whether UK nuclear weapons deterred in the past or are capable of deterring specific, unforeseeable or unknown threats in the future are questions that require examination, evidence and argument. The White Paper fails to do this, and relies instead on unsubstantiated assertions and slogans. Before making any binding decision, Parliament should insist on seeing a deeper analysis of nuclear and non-nuclear deterrence.

19. Contrary to the “truisms” that pepper the White Paper, history provides evidence that US and/or British nuclear weapons demonstrably failed to deter some very serious conflicts involving “acts of aggression” against what were perceived as our “interests”. These include the Korean War; Vietnam War; Falklands War; and the invasion of Kuwait, leading to the first Gulf War. The first two appeared as part of the quintessentially Cold War contest of “Western values versus communism”. US nuclear weapons failed to deter, prevent or influence the conduct and outcome of these conflicts.

20. With regard to the Falklands War and invasion of Kuwait, despotic leaders calculated correctly that they would not incur nuclear retaliation for their aggressive actions, despite not having nuclear weapons of their own. Far from being an effective deterrent, the evidence indicates that UK nuclear weapons were completely irrelevant to the decisions of the Argentinian generals; or of Saddam Hussein when he paraded British captives—including the UK ambassador—on Kuwaiti and international television, in what was a calculated public humiliation for Iraq’s former colonial master.

21. Deterrence requires some level of shared values and reliable communications among protagonists, which took time to develop during the Cold War and is unlikely to work with the kind of threats—including terrorists and failed states with weapons of mass destruction—that the government now envisages. In addition, to make an adversary believe that a nuclear weapon threat is credible, it is necessary to demonstrate a preparedness to use the weapon. This entails concomitant risks of miscalculation, inadvertence or accident, as was clearly shown when the Cuban Missile Crisis brought the world to the brink of catastrophe in 1962. It was clear then, and for the rest of the Cold War, that nuclear weapons increased global insecurity.

22. Though the bilateral treaties and measures put in place to enhance East-West communication and control and reduce nuclear build-up helped the US and USSR to avoid direct nuclear confrontation and mutual annihilation, it is a stretch too far to claim that their nuclear weapons—or Britain’s—underpinned international peace and security. Arms sales continued to grow across the world, and many millions died as the major powers pursued proxy conflicts with each other by arming and fuelling wars in Africa, Asia and Latin America. Europe was spared, but the government has failed to provide any evidence to suggest that war was averted in Europe because of our nuclear weapons, rather than, say, the development of the European Union, less offensive military intentions on the part of the Soviet leadership than was assumed (or presented by US/Western leadership) at the time.

23. Soviet archives indicate that far from planning to invade Europe, the Soviet Union was put under great stress by having to divert resources into trying to match the US nuclear arsenal because of the fear generated by the perceived threats from US (and then British and French) nuclear weapons. Hence, the development and build-up of nuclear weapons by one side provoked the build-up of nuclear weapons by others. If Moscow had had any political or ideological impulse to undertake military adventurism in Europe, history suggests that it was most effectively deterred by its own compelling economic and political constraints.

24. From President Kennedy’s Defence Secretary, Robert McNamara, to General Lee Butler, President George H W Bush’s Commander-in-Chief, US Strategic Command (1989–91), senior military practitioners have expressed growing scepticism about the efficacy of nuclear reliance, even during the Cold War.96

25. Not only does the White Paper fail to justify its premise that our nuclear weapons aided peace and international security and deterred acts of aggression against the UK and its vital interests; the available evidence appears rather to point in the opposite direction. At the very least, the British public should expect the government to make a case based on more than the repetition of unsubstantiated assertions. Too much of our future security is at stake to rely on cold war myths and voodoo mantras about deterrence. The government needs to provide and examine evidence from the real world, based on the record of what actually happened in the past 51 years.

26. Even if nuclear weapons did play a role in deterring war among the major Cold War powers, relying on them in the manifestly different conditions the UK now faces reveals a naive and complacent stretch of faith. Adherence to a policy of nuclear reliance in a proliferating world increases the risks that deterrence will fail. If nuclear deterrence fails, remaining decision-makers (or even the submarine commanders, in a worst case scenario), may feel compelled to use UK nuclear weapons in retaliation, which could kill thousands, perhaps millions more civilians, as well as escalating the threats for Britain and the rest of the world.

96 General Lee Butler, for example, described nuclear deterrence as “a rhetorical sleight of hand, deceptively packaged and oversold”, Speech to the National Press Club, Washington DC, 5 December 1996.
To back up this assertion, the government makes five specific claims:

(i) "significant nuclear arsenals remain, some of which are being modernised and expanded”

27. The circularity of this argument is superficially persuasive, but deeply flawed. The government appears to be justifying its desire for Britain to retain its current nuclear weapons in perpetuity by citing similar decisions by others. By committing to acquiring a system to follow on from Trident, with upgraded submarines, perhaps also incorporating modified (modernised) warheads, Britain is excusing itself by creating an excuse for everyone else. Across the world, national legal systems and normal morality rightly reject the “others are doing it too” defence, even (especially?) by gang members who may genuinely feel threatened by knife or gun cultures that their own posturing with such weapons perpetuates and provokes.

(ii) “the number of states possessing weapons has continued to grow”

28. It depends where the baseline is drawn, but there were more nuclear weapons and more states with nuclear weapons 15 years ago than now. The enhanced political value placed on nuclear disarmament and nonproliferation in the early 1990s played a major role in enabling South Africa, Belarus, Ukraine and Kazakhstan to close down nuclear weapons facilities and dismantle or give up the nuclear weapons on their territory. They subsequently joined the NPT as non-nuclear weapon states. Brazil, which at one time was expected to become the fifth nuclear threshold state (after Israel, India, Pakistan and South Africa), also renounced any ambition in that direction and finally joined the NPT a few years after they signed up to the Treaty of Tlatelolco, establishing a nuclear weapon free zone in Latin America and the Caribbean.

29. In that time, only one state—North Korea—has sought to withdraw from the NPT. Though North Korea’s nuclear test on 9 October 2006, and its claim to have produced some nuclear weapons are undoubtedly a set-back for the nonproliferation regime, it is simply nonsense to suggest that this justifies UK nuclear weapons. If anything, the North Korean example illustrates the predictable consequences of military threats and nuclear sabre-rattling, as practised since 2001 by the Bush administration, in a context when major nuclear powers are revaluing and modernising their nuclear forces and undermining international law and the multilateral nonproliferation regime.

30. It is true that India and Pakistan have gone more overt, declaring themselves nuclear weapon states after conducting underground test explosions in May 1998. After initial condemnation, the international community did not take long to accept them back into the fold, particularly when President Bush has embraced them so closely as allies in the “war on terror”, resuming arms sales to Pakistan and, most recently, concluding a nuclear deal with India that is widely perceived as undermining some of the basic principles and practices of the nonproliferation regime, including export controls on nuclear technology.

31. The “nuclear ambitions of Iran”, cited in Tony Blair’s introduction to the White Paper, are still many years from a nuclear capability. This is not to say that the world can afford to be complacent. Though we are right to be very concerned, Iran’s ambitions are not going to be thwarted by British nuclear weapons. Quite the reverse: Iran’s ambitions may be contained and kept as unfulfilled as Libya’s, but the strategies for doing so will require at a minimum the devaluing of nuclear weapons, strengthening the nonproliferation regime, and reducing the status, value, additional security and power projection that many in Iran think are being bestowed on Israel, India and Pakistan by their possession of nuclear weapons.

(iii) “ballistic missile technology has also continued to proliferate”

32. As for ballistic missiles, one of the foremost US nonproliferation experts, Joseph Cirincione, noted in January 2007: “The ballistic missile threat is often exaggerated by government officials in their justification for favoured programmes. The “missile scare” of the past 10 years provoked by the inaccurate assessment of the 1998 Commission to Assess the Ballistic Missile Threat to the United States chaired by Donald Rumsfeld, has proven to be a false alarm. None of the threats predicted by the commission developed. No new nation acquired ballistic missile technology over the past nine years (in fact, no new nation has started a ballistic missile program in the past 20 years). Nor did North Korea, Iran or Iraq develop an ICBM, as the commission predicted they would. The only missile development of any consequence has been the testing of medium-range ballistic missiles by North Korea and Iran, with ranges of 1,000–1,300 kilometres. Efforts by North Korea to develop longer-range missiles have failed; Iran has announced programs to extend the range of their Scud-based missiles but without any demonstrated success.”

33. Cirincione concludes, “the ballistic missile threat Europe faces today is limited and changing very slowly. Russia’s arsenal is steadily declining and this decline could be accelerated through negotiated

99 Email communication with the author, 26 January 2007.
reductions. China’s arsenal is limited and could be limited further through negotiations. Iran is the only other conceivable threat but there is little evidence that Iran could develop a long-range missile capable of hitting Central Europe with nuclear warheads within the next 15 years. Here, too, internal political developments and diplomatic efforts and measured military preparedness could deter and even eliminate this threat before it develops.\textsuperscript{100}

34. In an article outlining two multilateral approaches to constrain the proliferation of missiles, President Clinton’s former ambassador for nonproliferation, Thomas Graham, and Indian expert Dinshaw Mistry noted that the major impediment to getting a global missile nonproliferation treaty would be the nuclear powers, who would “seek to retain their nuclear missiles in any such treaty”.\textsuperscript{101}

35. This again exposes the circularity of positions relied on in the White Paper: it justifies Trident replacement as necessary to defend against a possible future threat that we would be in a much stronger position to prevent here and now if we weren’t so bent on keeping our nuclear options as wide open as possible.

(iv) “most industrialised countries have the capability to develop chemical and biological weapons”

36. This is technically true but very misleading. Most pharmaceutical manufacturers and kitchens also have the “capability” to develop some kinds of chemical and biological weapons (CBW), but that does not mean that there is an increased threat from chefs and people who work for Boots and Superdrug. To constitute a threat requires not only capabilities and know-how, but intentions and concealment, as the government well knows. This assertion therefore carries uncomfortable echoes of the exaggerations and innuendos in the “dodgy dossiers” crafted in 2002–03 to create sufficient fear to propel sceptical MPs into voting for the war on Iraq.

37. Two further aspects embedded in this assertion need to be unpicked. Including it here implies that Trident would have some role to play in countering biological and chemical weapon threats. First, in accordance with Britain’s international legal obligations and security assurances, nuclear weapons cannot lawfully be used to counter a biological or chemical threat from a non-nuclear state. As Professor Michael Clarke of the University of London points out, “There is no comparison between the strategic destructive power of nuclear weapons on the one hand and of chemical and biological weapons on the other.”\textsuperscript{102} Nuclear weapons would not be a proportionate response even in the event of a significant attack using biological or chemical weapons, and so would violate humanitarian law and the laws governing armed conflict.

38. Additionally, there are widely adhered-to international treaties and agreements that prohibit biological and chemical weapons. These have created international norms that will act as a much more effective deterrent on any government contemplating the use of such weapons. Even though Saddam Hussein was hanged before he could be tried for using chemical weapons against Iranian forces and the Iraqi-Kurdish town of Halabja in the 1980s, the fact that this use has been widely condemned as a war-crime will give the deterrent effect a personal dimension for the leader(s) of any regime that might consider CBW use in the future.

(v) some countries might in future seek to sponsor nuclear terrorism from their soil

39. As Tony Blair said, “I do not think that anyone pretends that the independent nuclear deterrent is a defence against terrorism.”\textsuperscript{103} He is right, and it is misleading for the White Paper to try to draw a link by asserting “retention of an effective nuclear deterrent by the UK has a role to play in reducing the potential threat from state-sponsored nuclear-armed terrorists”. [p 20] This evoking of nuclear terrorism as a threat to justify Britain holding on to nuclear weapons has the same flaws as the previous assertion about CBW. Nuclear pre-emption or retaliation would inevitably kill thousands of innocent non-combatants and violate the legal requirement of proportionality.

40. The nuclear threat in these cases would be far less likely to deter than existing collective political, diplomatic and economic tools, and any nuclear use could profoundly compromise Britain’s security and international standing in the longer term.

\textsuperscript{100}Ibid. See also, Joseph Cirincione, The Declining Ballistic Missile Threat, 2005, Carnegie Endowment for International Peace, Washington DC, February 2005. In this, Cirincione states: “At present, neither the United States nor Europe faces a serious threat from nuclear-armed ballistic missiles. Russia still fields some 3,550 warheads on over 900 intercontinental andsubmarine-launched ballistic missiles, but absent an accidental or unauthorised launch it is very unlikely that these missiles would be used against another nation. Russia’s forces will likely shrink dramatically over the next 10 years to under 1,000 warheads on a few hundred missiles. China fields only 20 warheads on 20 intercontinental ballistic missiles, though it is very unlikely that these missiles would be a threat from new generation of missiles it hopes to field by the end of the decade. No other potentially hostile nation has a long-range missile that can reach Europe or the United States from its territory.”

\textsuperscript{101} Thomas Graham and Dinshaw Mistry, “Two Treaties to Contain Missile Proliferation” Disarmament Diplomacy 82 (Spring 2006).


\textsuperscript{103} Tony Blair, House of Commons, Hansard, 19 October 2005, column 841.
41. The taboo on using or assisting others to use nuclear weapons is even stronger than the taboos on CBW use. Moreover, UN Security Council resolution 1540 (2004) has placed an obligation on all governments to enact domestic legislation to comply with the treaties and do everything in their power to prevent non-state actors from acquiring the materials and technologies that might lead to biological, chemical or nuclear weapons. While this does not guarantee against a CBW or nuclear terrorist attack, it will give serious pause to any government, manufacturer or political group that might be tempted to assist or turn a blind eye to terrorists seeking to acquire any kind of weapon of mass destruction.

42. Finally, there is a post 9/11 twist that fatally undermines the concept of nuclear deterrence with regard to extremists driven by religious or political ideologies. Not only would such aggressors not be deterred by nuclear or other WMD held by their target countries or anyone else; on the contrary, their game plan could include provoking a nuclear or similarly disproportionate retaliation in order to turn moral outrage against the retaliator and recruit more people to their causes.

43. As Professor Malcolm Chalmers noted, “Far from being deterred by nuclear weapons, terrorists would be delighted to provoke a Trident retaliation, fully aware of the global opprobrium that this would bring on Britain. Even a nuclear attack on the UK by an identifiable “rogue” state could not justify a British nuclear response in which the main victims would be thousands of innocent civilians. Regime change using conventional forces would be a more appropriate, and moral, response.”

“We can only deter such threats in future through the continued possession of nuclear weapons.” [p 7]

44. On the contrary: as analysed above, Britain’s nuclear weapons cannot provide us with security or convincing deterrence, but they may increase our insecurity by making us a more attractive and vulnerable target than countries without nuclear weapons.

45. In the absence of any evidence, arguments or attempt to make a case for nuclear deterrence having had efficacy in the past or how it would work with regard to potential future threats, one of the ploys utilised assiduously in the White Paper is to refer only to the “nuclear deterrent”, sometimes qualified by “independent” or abbreviated to “the deterrent”. This is an advertising technique, as when a drink is labelled “naturally good” to distract consumers from the fact that it is packed with sugar and chemical colour and flavour enhancers. Such labels are not only dishonest; they function to influence decision-making. It is psychologically harder for MPs to vote against having a “deterrent”, however tenuous, than if the words “nuclear weapons” were straightforwardly used in the government’s discussions.

46. The White Paper’s case for gaining public acceptance (and MPs’ votes) for renewing Trident rests entirely on its unproven (and generally unprovable) assumptions and statements about deterrence. People may consent to nuclear weapons that are there in order not to be used, as government spokespeople used to proclaim, while magically preventing anyone else from using nuclear weapons against us. The idea of renewing Trident becomes far less attractive when put in terms of nuclear weapons that a political leader in the future might decide to launch against another country, where they could kill hundreds of thousands of people.

47. Though the White Paper goes further than most such documents in explaining why it prefers Trident’s particular capabilities in terms of range, readiness and the diversity of targets it can hit simultaneously, it does not, for obvious reasons, discuss targeting doctrine and strategy. Information on this is classified in Britain, but available in an unclassified version from the United States, with which UK doctrine and targeting are harmonised. UK officials insist there are some critical differences between British and American doctrines and targeting policies, but have failed to provide information on what these differences are and why.

48. Therefore, before jumping to the conclusion that nuclear deterrence is a good or sensible thing, it is worth looking at the kind of targets that are being explicitly considered as part of US deterrence doctrine. While it is true that UK Trident missiles are not currently targeted at anyone in particular, a host of military and civilian targets anywhere in the world can be programmed in as quickly as it takes to key the coordinates into a computer.

49. Though the UK reduced the “notice to fire” from hours to days in 1998, the UK’s current “deterrent posture” requires that whenever the submarines go on patrol they are equipped with armed warheads attached to navigationally primed missiles able to be launched at a moment’s notice once they receive the order which, according to the White Paper, can only come from the Prime Minister. (If the Prime Minister has been incapacitated, what then? While accepting this is the political requirement, are we expected to believe that the commanders on board the submarines do not possess the physical capability to launch the nuclear weapons on board in extremis?)


“Conventional capabilities cannot have the same deterrent effect” [p 7]

50. Again, this is an assertion without a shred of evidence or analysis. The vast majority of the world’s nations, many of which are in far more volatile or vulnerable regions than Britain, have concluded the opposite. This assertion completely contradicts the premise on which the nonproliferation regime is based. It severely undermines international efforts to prevent the acquisition of nuclear weapons by countries such as North Korea and Iran, and if taken seriously, could provide justifications for nuclear proliferation by many more governments. For the government to make such an assertion is deeply irresponsible, and flies in the face of history and Britain’s broader security and nonproliferation objectives.

51. The issue is not whether deterrence is a useful concept for defence, but whether nuclear weapons are an essential—or even useful—component of actual deterrence. To the extent that deterrence works, it is the product of the interplay of multiple instruments, any one of which might fail. As well as hard and soft power, psychological, cultural and communications factors play important but not necessarily predictable roles in deterrence. It is inappropriate—and counterproductive—to rest the weight of deterrence on a single weapon system: if that were justifiable, all governments would feel duty-bound to provide such protection to their populace.

52. Finally, the possibility that deterrence may fail is inherent. Adherence to a policy of nuclear deterrence in a proliferating world increases the risks of its failure, and may then cause nuclear weapons to be used, which would likely prove worse than the original threat.

Renewing [Trident] is fully consistent with all our international obligations. [p 7]

53. On the contrary, renowned international lawyers have concluded that:

— The use of the Trident system would breach international law, in particular because it would infringe the “intransgressible” requirement that a distinction must be drawn between combatants and non-combatants;

— The replacement of Trident would constitute a breach of Article VI of the NPT; and

— Such a breach would, in legal terms, be a “material breach” of the NPT.106

54. To justify its claim to legality, the White Paper in Section 2 argues that the NPT “recognises the UK’s status” and that Britain has substantially reduced its arsenal and is much smaller than the major nuclear powers. In the hope of being perceived as complying with its nuclear disarmament obligations under Article VI, the government goes a step further, and offers to reduce the “stockpile of operationally available warheads” by 20%, resulting in “almost a 50% reduction compared to the plans of the previous government”.

55. Previous governments’ levels of overkill are not disputed, particularly when the Conservatives brought Trident into service in 1994, several years after it had been rendered militarily obsolete by the end of the cold war. However, other governments’ failures to take their treaty obligations seriously cannot constitute a justification for the present government to make the same mistakes. The treaty obligations were made more urgent and explicit in two consecutive meetings of NPT parties, in 1995 and 2000. If a decision is wrong for Britain’s security and the nonproliferation regime, it isn’t improved by making it only 80% as bad as the previous lot.

56. As part of efforts to strengthen the NPT, the obligations with regard to safeguards and disarmament were clarified and further elaborated in 1995 and 2000, by consensus agreement of all NPT states parties. In relation to this, the P-5 nuclear-weapon states made an “unequivocal undertaking . . . to accomplish the total elimination of their nuclear arsenals”, and committed themselves to a programme of “practical steps for the systematic and progressive efforts to implement Article VI”.107

57. The withdrawal and ultimate decommissioning during the 1990s of obsolete weapons such as nuclear artillery and nuclear depth and free-fall bombs was, of course, welcome, but the Article VI obligation is not just to reduce the nuclear arsenals, but to eliminate them.108

58. By no legally admissible reasoning would it be consistent with these obligations for Britain to procure new submarines to carry continuously refurbished US ballistic missiles with up to 160 refurbished or possibly new warheads, with the intention of having this renewed nuclear weapon system come into service in 15–20 years time and run for up to 30 years after that.


108 See ???
59. The White Paper is not promising to reduce its existing Trident system, which would be welcomed as a step towards giving it up altogether. However it is dressed up, the White Paper’s actual proposal is to maintain at least 80% of Britain’s nuclear weapons for a further 30 plus years, representing an overall increase in capability and longevity.

60. This is not disarmament, but “nuclear re-armament”, as noted by Kofi Annan. In pursuing the renewal or modernisation of existing arsenals, the outgoing UN Secretary-General warned that the nuclear weapon states “should not imagine that this will be accepted as compatible with the NPT”.

VIOLATING THE NPT

61. While the various steps that the UK has taken towards reducing its arsenal since 1991 and ceasing nuclear testing and fissile material production are welcome, these should not obscure the fact that Britain will be violating the NPT and several other international legal obligations if it acquires and deploys a further generation of nuclear weapons, even if there are “only” three submarines and 160 warheads and they are designed to look almost exactly the same as the current Trident system.

62. The White Paper makes misleading reference to the 1996 Advisory Opinion of the International Court of Justice (ICJ), saying that it “rejected the argument that [the use or threat of use of nuclear weapons] would necessarily be unlawful”. In fact, three of the 14 eminent Judges hearing the case took the view that any and all uses of nuclear weapons would be unlawful, even if the very survival of the state was at stake, while seven felt unable to make that determination—as the law then stood—and the remaining four considered that the use of nuclear weapons to ensure the survival of the state would be permissible under international law. Though the White Paper provides only a thin overview of doctrine and targeting policy, it is hard to see how any envisaged use would pass this high legal threshold.

THE WHITE PAPER PROPOSES TRIDENT LITE

63. Trident Lite is that classic mistake of weak governments—an apparent compromise that resolves nothing. There is no convincing military or political case to justify retaining the current, cold-war-designed Trident nuclear system at a cost of over £1 billion per year, and the government has failed to make its case for buying and deploying the same system all over again, albeit with three submarines and fewer warheads.

64. Calculations based on the frequency and size of the nuclear warhead convoys between Aldermaston and Coulport suggest that Britain may not have manufactured more than 160–170 warheads for the current Trident system. The White Paper’s offer of a reduced stockpile may therefore be little more than a political bid to make a virtue out of necessity. With 160 warheads, Britain’s nuclear arsenal would carry an aggregate explosive power of some 16 megatonnes.

65. Since the cost savings of Trident-lite over Trident are not very big, the government appears to be politically banking on their slightly scaled down version being more acceptable to domestic and international opinion than commissioning the full-blown Trident or, worse still, a more flexible, provocative or vulnerable air-, land- or sea (surface)-based system.

66. The Foreign Office has embarked on a “charm offensive” to explain the government’s decision, with great emphasis being placed on presenting the 20% reduction as a significant step towards fulfilment of Britain’s article VI obligations.

67. Trident lite will extend dependency on the United States. Britain relies on US ballistic missiles, which are manufactured by US arms giant Lockheed Martin, which also owns 30% of the consortium that manages AWE Aldermaston. UK warheads are manufactured using extensive research and design cooperation from the United States and even some US-made components and materials.

68. The current Vanguard submarines and any envisaged follow-on will exacerbate tensions with Scotland, where they are deployed at the Clyde Submarine base at Faslane. A significant majority of Scottish public opinion, including several political parties and the major churches, are opposed to nuclear weapons, and resent having the UK nuclear forces foisted on them.

69. Scotland’s concerns have been more prominently voiced since the partial devolution of some responsibilities to the Holyrood parliament. While defence and foreign policy decisions remain with Westminster, Holyrood has responsibilities for environmental safety and policing. In regard to this, questions have been raised in the Scottish Parliament about the transporting of nuclear warheads on the roads between Aldermaston and Faslane, and the costs and problems of policing the nuclear base. A focus for local and international protests for more than 25 years, disruptions of the Faslane base and its access roads has intensified in recent months. Among the thousands who have protested against Trident and its renewal in recent months, over 450 have been arrested, including seven members of the European and Scottish parliaments, eminent clerics, authors and professors, and a former Assistant Secretary-General of the United Nations. The costs of policing now exceed £1.75 million per month, and are predicted to rise. In
view of the costs and risks to Scottish taxpayers, the Scottish National Party (SNP) has proposed charging the UK government £1 million per nuclear warhead that is transported on Scottish roads to Coulport and Faslane.109

CONCLUSION

70. The Trident decision embodies both an opportunity and a responsibility to examine Britain’s security needs and debate our role in the world for the 21st century. It should not be rushed.

71. The White Paper has failed to grasp the fundamental changes affecting UK security in the 21st century. It proposes business as usual (only 20% less), when Britain needs to play a more visionary, coherent and pro-active role to prevent threats that nuclear weapons will not prove capable of deterring.

72. Parliament should not vote on the issue until there has been a much fuller consultation, involving experts and civil society.

73. Though the Acronym Institute shares some of the government’s concerns about proliferation, the White Paper places the wrong emphasis on the various elements of the threats facing Britain, and specifically in relation to nuclear risks. Much more should be done to support the multilateral treaties and instruments that play a critical role in our national security and as a major component of international deterrence against the use and threat of use of weapons of mass destruction. Preventing the development of further nuclear weapons is an integral part of a successful non-proliferation policy.

74. Britain must not fudge this historic chance to provide leadership and promote more effective strategies to devalue nuclear weapons and enhance the non-proliferation regime’s credibility and reduce nuclear threats worldwide.

30 January 2007

Memorandum from Michael McGwire

RUSH TO JUDGEMENT

The Defence White Paper on Trident Replacement sets out a policy decided long ago—a policy the Government seeks to hustle through Parliament by claiming that the decision must be taken “now”, lest there be “a future break in our deterrent protection.”110

The urgency is contrived. Information in the body of the White Paper indicates that in programmatic terms, such a decision does not have to be reached until some time in 2008, allowing the “substantial period of public and parliamentary debate” that the Prime Minister says he is looking forward to.111

Such a debate is particularly important because there may be more to the Trident question than meets the eye. One of the unexplained anomalies of the Government’s position on replacement has been its failure to do other than talk in generalities about Britain’s need for nuclear weapons, despite our being unusually secure off North West Europe. Officialdom refuses to discuss the circumstances in which nuclear weapons might be used, claiming it is advantageous to keep one’s opponent guessing and asserting (incorrectly) that uncertainty enhances deterrence;112 and one gathers that the Ministry’s military planners no longer “test” future threat scenarios.

The White Paper does little better in specifying future threats to Britain’s interests.113 It is, however, more forthcoming about the geographic scope of British requirements, which include taking action “to maintain regional and global security” [3–10]. Meanwhile, Britain should retain its capability “to deter threats anywhere in the world” [4–4]. It would seem that, in an oblique way, the White Paper is talking about threats to our attempts “to maintain regional and global security,” the latter being a euphemism for the global projection of Western conventional force.


110 Quotations from the Prime Minister’s Foreword to the Paper. Numbers in [–] refer to paras in the body of the Paper.

111 The 2007 decision-deadline in the White Paper derives from the estimate in the Paper that “it might take around 17 years from the initiation of detailed concept work to achieve the first operational patrol in 2024.” [1.7] But these are merely planners’ preferences, and there is a lot of wriggle room within that period, such as initiating concept work before the final decision is reached, tightening the planning, procurement and production timetable, reducing the tempo of current SSBN operations, and so on. These and other measures (such as greater urgency) could reduce the lead-time by 12–18 months.

112 Uncertainty encourages risk-taking, as we saw with the seizure of the Falklands in 1982 and Kuwait in 1990. Classical deterrence theory requires that the threatened punishment be certain in terms of military capability and political will. During the US debate on “launch-on-warning” vs “ride-out” during the 1970s, the possible utility of “uncertainty” was raised, but it does not feature in classical theory.

113 Projecting today’s latent threats 20–55 years ahead (ie the re-emergence of a Russian and/or Chinese threat and the emergence of new nuclear actors), the Paper postulates the risk of a major direct threat to the UK, or a lesser (but none the less grave) threat to Britain’s vital interests. It does not indicate the substance or the circumstances of such threats or what those interests might be.
These are ambitious goals, particularly in a world where relative power rankings are on the move. It assumes access to US satellite targeting and foresees Britain providing nuclear backup to the forces of “international order” for the next 50 years. It might be thought the Government was trying to nail down a policy that will commit us to the role of nuclear outrider to US global policy through the 2020s and beyond.

THE CURRENT DEBATE

Those goals are a long way from “sunk costs”—the justification that underlies popular opinion about our nuclear capability. “As we already have it, we might as well keep it. Who knows, it might come in handy and, anyway, “better-safe-than-sorry.” A slim argument for such an awesome capability, but that is how most people think.

Let us accept that, in terms of cost, convenience and professional competence, if it were decided to replace Britain’s nuclear capability, it would make sense to develop and deploy a modernised version of the existing Trident system. Whether we chose to build three or four submarines would have no international significance.

But that is a peripheral issue. The central question is whether it is in Britain’s wider national interests to retain a nuclear capability, and this requires a comparison of the relative costs and benefits. The primary emphasis needs to be on political interests, with particular attention being paid to opportunity costs—the costs of policies and procurement foregone as a result of Britain’s nuclear status.

Rather than undertake such analysis, the Defence White Paper uses the crutch of “unpredictability”. Not only does this divert attention from dangers that are all too predictable, such as nuclear proliferation, regional arms racing, and inadvertent or accidental nuclear war, but it encourages the kind of worst-case analysis that drove the Soviet-American nuclear arms race in the 1960–90 period.

THE BALANCE OF COSTS AND BENEFITS

Traditionally, the benefits claimed for a British nuclear capability are “enhanced security” and “political status”. The White Paper denies the latter is still a factor and we can agree that it is most unlikely that Britain, a founding member of all the best international clubs, would lose political status (or its permanent seat on the Security Council) if it scrapped its nuclear weapons.

As for security, Britain’s nuclear capability added nothing to alliance security during the Cold War. Today, its contribution to security remains nebulous and the Government has yet to demonstrate its relevance in the future.

In sum, the benefits to Britain of its nuclear capability are meagre at best and mainly hypothetical. What then of costs? The financial burden is not really significant (about 5% of the defence vote), but the need for technological support is largely responsible for Britain’s unhealthy political dependence on America, which must be counted as a cost.

But what about opportunity costs—the costs of policies and procurement foregone because of choosing to retain Britain’s nuclear capability? For example, the £1 billion spent annually on Trident would yield a substantial operational dividend were it to be invested in our over-stretched and under-equipped Land Forces (ground with air support), which have borne the brunt of British military operations since the end of the Cold War. And if it were decided to replace Trident, that opportunity cost would steadily increase to £2–3 billion a year during the 20 year procurement cycle.

The most important opportunity-costs are, however, political. And the more significant things that Britain could do and achieve (if it were not a nuclear-weapon state) relate to its Role in the world and, more immediately, to the nuclear Non-Proliferation Treaty, which is increasingly in jeopardy.

114 Reading as if written by Nuclear Planners committed to the Special Relationship, this aspect of the White Paper adumbrates a foreign policy that has yet to be debated by the British establishment, let alone the people.

115 It would seem that even Sir Michael Quinlan subscribes to a carefully nuanced and more sophisticated version of this conclusion. See “The Future of United Kingdom nuclear weapons: shaping the debate”, *International Affairs*, July 2006, 82:4, pp 634–5.

116 Scaling up from Hiroshima and Nagasaki, a single *Trident* has the notional capacity to cause 20 million instantaneous deaths.

117 This resulted in the grotesque totals of some 12,000 strategic weapons on each side.

118 The assertion would be disputed by the members of the Defence and related establishments (a powerful bureaucratic force), who believe that their influence with US colleagues depends largely on Britain’s nuclear status.

119 In the early 1960s, as a student at the US Armed Forces Staff College and then a SACLANT war-planner, I gained the strong impression that the British capability was seen as a fifth wheel, an impediment rather than a contribution to the US deterrent. The contemporary claim that the British capability complicated Soviet planning by introducing a second decision centre has not been borne out by Soviet nuclear experts who have talked with Lorna Arnold and with David Holloway, the latter a specialist in the field. Holloway concluded that neither the British nor the French capability worried the Soviets. In the 1960s, they had been concerned that the Germans might gain control of such weapons.

120 The belief that “nuclear weapons kept the peace” during the Cold War reflects the Western line that we faced “the relentless expansion of Soviet communism”, which was “set on military world domination”. However, in 2002 the White House informed us that what we had actually faced was “a generally status quo, risk averse adversary.” The National Security Strategy of the United States of America (Washington September 2002, p 15).
At the time of the Treaty’s inception in 1968 and for the next 25 years, the NPT was immensely important and unexpectedly successful. This was largely due to the nature of the Cold War world with its two camps, client states and the superpowers’ common interest. The Treaty was, however, inherently discriminatory, and would remain effective only as long as the non-nuclear states believed it was, on balance, fair and that it served their long-term interests. Fairness is important because its correlate—resentment—is a powerful and destructive motivator.

Come the end of the Cold War, the nuclear-weapon states sought the indefinite extension of the NPT. There was significant opposition to this proposal from the non-nuclear states, but, in return for a range of inducements, the indefinite extension was agreed at the 1995 Treaty Review Conference. This was subject to a pledge by the nuclear-weapon states that the five-yearly Conferences would provide an engine for progress towards the goal of nuclear elimination, as set out in Article 6 of the Treaty.

That promise was explicitly reaffirmed in the final statement of the 2000 Review Conference but, by then, the nuclear-weapons states were already walking back on their earlier promises. In 2001, the incoming Bush administration made clear its disdain for these and other arms control negotiations, and the 2005 Review Conference could not even agree a final statement.

Meanwhile, the tacit pledge that the nuclear states would avoid the resort to nuclear weapons has been replaced by the increasing normalisation of such weapons. Washington talks about using them in response to biological and chemical attack and is developing small warheads that can be used more readily (“useable nukes”). Britain and France talk in general terms of “sub-strategic” systems. In other words, having achieved the indefinite extension of the NPT, the nuclear-weapon states are not observing their side of the bargain, and America (which determines the nuclear “weather”) has explicitly woven the nuclear option into its operational doctrine.

These double standards contribute to the post 9/11 image of the “West against the Rest”, and a cynical view is that the NPT (and the associated Nuclear Weapon Free Zones) is now a convenient instrument of US foreign policy. It ensures that US conventional forces will not be deterred or hampered by the threat of a nuclear response, and can be used to justify punitive action against any “rogue state” that might be seeking such a capability.

This perception conflates dissatisfaction over the implementation of the NPT with the wider dissatisfaction arising from the rich/poor and North/South divides, from the socio-economic circumstances that have nourished fundamentalism, and from the polarising effect of Bush’s “war on terrorism”, with its simplistic slogan that “you are either with us or against us”. These different dissatisfaction each have their own fault lines, but in all cases the NATO nuclear states find themselves on one side and the “dissatisified” on the other, and the NPT is increasingly seen as part of a larger Western conspiracy. It is failing the crucial test of being seen as “fair”.

More importantly, increasing numbers of states are beginning to question whether the treaty still serves their long-term interests; the post-Gulf War dictum—that if you take on America, you need a nuclear capability—was seemingly borne out in 2003, when the US attacked Iraq, but not North Korea.

This outline gives a taste of the problems facing the NPT and has not addressed a range of questions, including how America would react if the treaty began to unravel. And since Washington believes that the problem lies with who possesses nuclear weapons, rather than the weapons themselves, how are we to decide who fits which category? The answers are not obvious, but one thing is certain: as a NATO nuclear-weapon state, Britain is in no position to affect the deteriorating trend.

But what if Britain renounced its capability?

The demonstration that Britain took its obligations under Article 6 of the NPT seriously would be a step in the direction of fairness and away from the double standards that undermine the treaty. Britain could address questions such as how the international system should react to the different categories of nuclear and potentially nuclear states? On what criteria are some states allowed to produce their own enriched uranium and stockpiles of plutonium, while others are forbidden any kind of enrichment facility? Who is a “good” or a “bad” state (and who decides)? Britain could help devise a political process and structure to accommodate threshold, virtual, declared and de facto nuclear states as well as the original “treaty” states.

It is not suggested that Britain’s renunciation would affect the policies of the existing nuclear-weapon states. Nor is it likely to influence those non-nuclear states that are already determined for their own separate reasons to acquire such a capability. It is, however, possible that British renunciation might be a significant consideration in the calculations of the remaining threshold states; and where “keeping up with the Joneses” was an important factor in determining military requirements, it would provide an alternative policy option. But those possibilities are not the issue.

The demonstration effect works both ways and my concern is for the negative aspects of Britain’s stance. Safe off western Europe, insisting that nuclear weapons are essential to our national security, Britain is a standing incitement to nuclear proliferation. We may think we have a global role that justifies our special status, but that is not how the rest of the world sees us. With some 40 states already technologically capable of producing nuclear weapons, we need to ask: “which is the greater threat to Britain’s future well being?” Is it unspecified dangers in some distant future, derived from “worst-case” analyses of hypothetical scenarios?
in an unpredictable world? Or is it nuclear proliferation in the near future, leading to regional arms racing and a world of 40 or more nuclear states, with precautions against theft and misuse of widely-varying effectiveness?

In terms of British policy, we face mutually exclusive choices. Either we concentrate our efforts on halting and reversing nuclear proliferation. Or we retain a nuclear capability, as it might come in handy in the unforeseeable future. We cannot do both.

To the question “but what about the other nuclear states?” a glance at the map will show that (apart from France) only Britain is in a position to renounce its nuclear capability without jeopardising its “supreme national interests”. Given our de-facto rationale of “sunk costs”, supreme national interests don’t really enter the picture. Nor do we have to consider France, which has a very different history and is hypersensitive about status, which the White Paper claims is not an issue for Britain. Meanwhile, one of the attractions of the proposed policy is that the decision to renounce nuclear weapons does not depend on negotiations and lies entirely with London.

By such action, Britain would demonstrate its belief that nuclear weapons are not essential to political status, nor are they considered necessary for our national security. We would be in a position to resist the “normalisation” of nuclear ordnance, to reassert the “nuclear taboo” and to argue publicly against the further development of nuclear weapons. And we would be able to highlight the inevitability of nuclear arms racing and its pernicious effects on international relations, while stressing the serious danger of accidental and/or inadvertent war.

A British decision to renounce its nuclear weapons would enable fundamentally new ways of thinking about the NPT, opening up unexplored avenues and opportunities for fresh initiatives and new alliances in a field that is characterised by patronising attitudes, entrenched positions, frustration, bad faith and distrust. Britain would automatically assume a crucial role in discussions and negotiations on what needs to be done and what (if any) decision-making structure would be required.

Which brings us to the opportunity-costs of our nuclear capability in terms of Britain’s role in the world.

The role a state chooses (or settles for) ultimately defines the national interests that need protecting or promoting (the basis of foreign policy) and the parameters of its security concerns (the basis of defence policy). Britain’s role was not discussed in the 1998 Strategic Defence Review; nor had it been properly discussed since Suez, when we staked all on the “special relationship”. After the Falklands, grateful for Sidewinders and satellite imagery, Britain focused on the role of compliant ally. Since 1991, Britain has been seen as a spear-carrier for Pax Americana, a role it adopted without public debate. Most recently, Britain has settled for the role of pillion passenger.

Like our nuclear capability, our self-appointed role as America’s closest ally and our outdated claim to provide a bridge across the Atlantic have opportunity costs: for example, the opportunity to be a fully committed member of the European Union. But there is an even larger opportunity waiting to be exploited: non-nuclear Britain as a leading member of a loose but growing coalition of major and middle powers, who see themselves as natural partners of America and share most of its values, but reserve the right to criticise its foreign policy, particularly in respect to the NPT and the role of nuclear weapons.

That criticism took substantive form in 1998, when the “New Agenda Coalition” successfully challenged the NPT Review process. Since then, other countries have been prepared to break ranks and, in the last five years, some 20 members of the wider western alliance have shown that on occasions they are willing to go against the “NATO” line on nuclear weapons. These include Germany, Italy, Brazil and Japan as well as Australia, Canada and New Zealand and, of course, the Nordics.

These are not “great” powers (as the term is generally understood) and collectively they cannot match the political clout of the United States. But “balancing” is not the aim. The aim is to provide a rallying point for “western” world opinion and for those who subscribed to Bush Snr’s talk of “a new world order” in 1991–92, but do not share Bush Jnr’s belief that democracy can emerge from the barrel of a gun. During the last 20 years, these countries and other members of the implicit coalition have in their different ways made significant contributions to the well-being of the international system. Particularly in respect to “soft power” and their support for UN objectives, the sum of their parts is substantial. If Britain threw its weight behind their efforts, it would be significantly greater.

The current thrust of US foreign policy is not some passing aberration; it is the product of the strategic reassessment that had been under way since 1992. The normalisation of nuclear weapons, the withdrawal from the ABM treaty, the push for missile defence, the plan to achieve dominance of space (explicitly echoing Britain’s command of the sea in the 19th Century)—all these programmes have their roots in the Clinton years. It was those decisions that allowed Bush to declare that US forces would “be strong enough to dissuade potential adversaries from pursuing a military build-up” to challenge US military power—a gauntlet that may discourage a symmetrical arms race, but will accelerate the search for other ways to counter America’s global capability.

In these circumstances, the balance of costs and benefits argue strongly in favour of Britain renouncing its nuclear capability rather than replacing Trident. The potential benefits include: restoring the viability of the NPT and reducing the pressure on other states to “go nuclear”; halting the normalisation of nuclear
weapons and reasserting the nuclear taboo; regaining possession of Britain’s foreign policy and increasing its stature in the world community; helping to heal the breach between “the West and the Rest”; and enhancing Britain’s ground/air expeditionary capability.

A prerequisite for enjoying those benefits is a change in British thinking. Without losing the ability to work as a reliable and effective partner of America when our interests coincide, Britain must abandon its addiction to the one-sided Special Relationship, which has incurred greater costs than benefits since World War II.\(^\text{121}\) It must also cast aside the beguiling Cold War illusion of “deterrence” as an all-purpose answer to unknown future threats. After 50 years of political indoctrination, Britain’s nuclear capability has acquired a ‘Totemic’ quality. It has become a national Ju Ju that in some unexplained way will shield us from danger in an unpredictable future. It is not a weapon—it is a security blanket.

The Government has a more instrumental view, but having read the White Paper one wonders whether they, too, are running on the inertia of Cold War policies and the ill-founded belief that “nuclear deterrence” is cost free.\(^\text{122}\) Given its reluctance to discuss the circumstances where and when the concept of deterrence might apply, one wonders whether the Government has fully weighed the ultimate consequences of a global policy based on a readiness to inflict nuclear punishment. One thing is certain. Deterrence theory drove the Cold War nuclear arms race and there is every reason to suppose that the British “deterrent system”\(^\text{123}\) will encourage the global proliferation of nuclear weapons.

PS A final point—there is no middle way. The choice for Britain is between renouncing its nuclear capability or continuing as a nuclear-weapon state. The issue is whether it possesses nuclear weapons of any kind, not the size and shape of its arsenal.\(^\text{124}\) The national and international benefits will only accrue if Britain abjures nuclear weapons completely.

5 February 2007

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Joint memorandum from the Campaign for Nuclear Disarmament,
British American Security Information Council and Greenpeace

**THE FUTURE OF THE STRATEGIC NUCLEAR DETERRENCE—19 FEBRUARY 2007**

1. We have shared a great deal of time with the Committee over the last few months, witnessing much of the oral evidence and reading the written evidence that the Committee has received. In a number of cases we have given evidence ourselves. Whatever the Committee’s final report concludes, and regardless of the outcome of the substantive debate, we should like to congratulate you on the manner in which you have conducted this Inquiry in the most difficult circumstances.

2. In this spirit, we would like to try and help the process, in its final stages, by offering some thoughts mainly around issues that we consider to be unanswered or that have arisen since the relevant Committee sessions.

*The consultation process*

3. You have made it clear on several occasions that you do not see the Defence Committee’s work as a substitute for the public consultation offered by the Government. We suspect (given the amount of time that you have all spent on this) that you will have some clear idea of just what scale and style of consultation would really have been appropriate. We do hope that your final report will re-emphasise that you have not been conducting the Government’s consultation for them. This point has taken on a very contemporary feel,

\(^\text{121}\) The true picture is obscured because at the “staff” level British officers and officials undoubtedly have a significant influence. It is, however, different at the national level, where policy-making has been likened to a board game played by the White House, Pentagon, State and Capitol Hill, and domestic factors or electoral considerations usually determine the outcome. Britain is only one of a number of client states, many of whom have powerful constituencies within America. Because of our loyalty, British acquiescence is now taken for granted over a wide range of issues and, if not publicly denied, helps reassure doubters in the US Foreign Policy Community about the wisdom of policies we ourselves do not agree with.


\(^\text{123}\) The term used by the Prime Minister in his Foreword...

\(^\text{124}\) Decommissioning the submarines and placing the warheads in monitored storage would not meet the requirement. For opponents of Trident replacement, the “middle way” is appealing because it provides an arena for negotiation and compromise, and minimises confrontation with HMG. It also appeals to HMG, whose bottom line is to retain the R&D, production, logistical and operational infrastructure to support a continuing nuclear capability, whose precise configuration is open to political negotiation.
in the light of the High Court judgment with regard to nuclear power. You may know that at least one organisation is currently waiting Leading Counsel’s Advice in relation to the consultation on the Trident replacement White Paper.

**Costs**

4. We do not need to emphasise the lack of clarity from the MoD so far as both the historic costs and forecast costs of a replacement are concerned. The exchange between the Committee’s Chairman and the Secretary of State in the final session was an astonishingly frank admission that previous costs had been seriously understated. You will appreciate the obvious point (and there are many others) that without a further explanation as to how and why these costs were understated we can have little confidence that the problem is not ongoing. (We tried for several days to get the MoD to clarify the period covered by “previous administrations” but still have no answer.)

5. As a further illustration of this difficulty may we point out that the White Paper states page 29: 6,7 “The disposal of the Vanguard submarines is still some way off and it is therefore too early to estimate the possible decommissioning costs”, and yet there are some parliamentary answers and evidence elsewhere that suggest such costs have been taken into account. (This has an uncanny similarity to the High Court’s particular concern that disposal of nuclear waste had not been properly addressed in the Government’s energy review.)

6. We also believe that the Secretary of State’s assertion, that all the procurement costs of new platforms and weapons will not come from the MoD budget, begs as many questions as it answers.

7. Indeed, at this stage we hope that you would agree that Parliament and the public would have been better served if the Committee had been able to restrict itself to the genuine defence issues involved rather than having to cover a lot of other territory. It is for this reason that we have written to the Rt Hon Edward Leigh MP suggesting that the National Audit Office should be asked to conduct an Inquiry into the true costs of British nuclear weapons at least from the commencement of Trident procurement onwards. There would also be a good case for the Treasury Committee to examine all the estimates and forecasts arising from the White Paper. (We would be happy for the Committee to see our letter to Mr Leigh if he is agreeable.)

8. Before we leave the question of costs it must have occurred to the Committee that this debate would have been clearer if it had started after both the outcome of the Comprehensive Spending Review is known in the summer, and the Naval Base Review. We do wonder to what extent the MoD and, indeed, BAE Systems are trying to prejudice some elements of that exercise.

9. The very recent comments by Sir Jonathon Band, First Sea Lord, are clearly addressed to the Comprehensive Spending Review and it is interesting that Sir Jonathon does not have three or four new SSBNs on his wish list as well as the two carriers. Maybe this is because he has absorbed Mr Browne’s promise that the SSBNs will not come from the MoD budget. But on the other hand he may be recognising that they way things are looking for the next 20 or 30 years he is not going to get both.

The Foreign Affairs Committee

10. During the Committee’s last session with the Secretary of State, the Chairman suggested that perhaps the entire replacement should be charged to the Foreign Office. We appreciate Mr Arbuthnot’s wit, but “many a true word . . .”. It is deplorable that the Foreign Affairs Committee has not visited this area since the publication of the White Paper and has effectively left the Defence Committee to deal with all the complexities arising from the evidence of Professor Sands QC and his think tank adversaries. If there was more time for consultation then a thorough exploration of international diplomacy, the nuclear Non-Proliferation Treaty (NPT), international law covering weapons of mass destruction and all related matters could have been dealt with.

New warhead

11. At the end of the Committee’s last session, Mr Browne stated that he did not have “a mature view” as to whether a new warhead would be consistent with obligations under the NPT. Although it is true that the matter is speculative, the Committee must understand the implications since the Chairman would not ask irrelevant questions.

Impact on non-proliferation

12. Over and beyond the technical and academic debate there is the crucially important issue as to how this decision by the British Government will affect the intentions and conduct of other nuclear or potentially nuclear states. This enters the world of the highest diplomacy with its own key players and language and it would be naïve not to understand that the White Paper was preceded by an informal diplomatic offensive in various quarters. But there is some evidence of serious concern and we offer you in particular a transcript
of an interview conducted by the BBC with Ambassador Abdul Minty of South Africa (which unilaterally decommissioned its nuclear weapons capacity). We are hoping that Ambassador Minty will visit the UK in the next few weeks and make himself available for further discussion.

**Skills and technology base**

13. On 8 February the Government published its response to the Committee’s third report. Much of the Government’s response is simply to reiterate previous evidence. It does not offer any meaningful suggestions as to what the future cost of SSNs will be without SSBNs contributing to the “22 months drumbeat” of production. The Committee made it clear that there should be an agreed contract price for the two Astute Class submarines already under construction but the MoD have simply responded “negotiations on prices for Astute Class submarines hulls 2 and 3 are concluding and will be subject to formal approval by the MoD and BAES”. If such an announcement really is imminent, all the more reason for no further decisions to be taken until this crucial information is known and digested. In response to the concerns that the Committee expressed in relation to the Atomic Weapons Establishment and the MoD, clarifying what additional investment is intended, there is simply further repetition of existing information and the suggestion that the investment for the forthcoming year (commencing April) “will be determined over the next year, following this year’s Comprehensive Spending Review”. We consider this to be another very good reason for pausing before plunging in any further.

14. We are sure that the Committee will have noticed that Professor Garwin’s views reflect widespread opinion in the nuclear defence community that the decision that the Government is pressing for now is premature.

15. Reading the questions from the Committee, as well as the evidence, and noting the views of some directly interested parties from the trade unions and geographical communities that are affected, we feel that the most genuine and strongly held support for the Government’s position arises from the view that a particular British skill base and the town of Barrow in Furness are likely to “die” unless there is a commitment to new SSBNs almost immediately.

16. We are sure that the Committee will bear in mind the current standing of BAE Systems in public perceptions. While not all the criticism may be justified we believe that the public will be deeply disturbed when they make the connection. We have been surprised that so many members of the House had not understood that the main contract for these boats was intended to go to the same company that has sustained so much unfortunate publicity of late.

17. Since there has been such genuine concern for the future of Barrow we are surprised that the White Paper makes no binding commitment to procurement within the UK and it will be a dreadful irony if misguided parliamentary votes perceived as a commitment to Barrow eventually result in a UK based construction plan that provides insufficient work to satisfy Barrow or in the purchase of boats from Connecticut.

**Alternative economic development at Barrow**

18. It may also be the case that amongst all the formidable and well-researched information offered to the Committee, some very simple truths have not been sufficiently stressed. The “save Barrow by SSBNs” argument cannot be a long-term strategy for an isolated town that already suffers the comparative deprivation and poverty that it does. 3,500 jobs (and still declining) do not sustain a community of this size. In this particular case it may well be that Members of Parliament with their constituency knowledge can see things more clearly than the industry experts. Does anyone think it would be of general assistance in attracting major new manufacturing or service industries to their own area if this investment had to be located in the vicinity of a nuclear installation building submarines for launching nuclear weapons. The security measures, the secrecy, the health hazards (real or imagined) and the labour market conditions (comparatively high remuneration within an area of high unemployment) make the prospect highly unlikely.

19. Alongside enquiries by the Public Accounts Committee, Treasury Committee, Foreign Affairs Committee and further work by your own committee, it would be a tremendous contribution if the Trade and Industry Committee were to investigate the particular argument about jobs and skills. Some serious examination of the studies by Arms Conversion experts and others, and the opportunities that exist for R&D and manufacturing in the renewable energy sector in areas suffering a decline in heavy steel fabrication, are long overdue. It is not difficult to calculate that the MoD’s highest estimate of the jobs dependent on Trident replacement, divided by Government’s lowest figure for the total cost, indicates that as a job preservation scheme this is coming out at over £2 million per job. With that sort of money on offer, would any Member of Parliament opt to have it spent on an industry whose indefinite continuation would be beyond doubt a fundamental breach of the commitments to multilateral nuclear disarmament, given by every British government for decades.

20. In conclusion, we hope that the Committee will reaffirm its previous view that a decision at this time is premature. The Government must prolong the period of consultation for sufficient time to resolve the many matters that the Committee itself has pursued.
Supplementary memorandum from the Ministry of Defence

Thank you for your letter of 7 February. Responses to the four questions posed by Committee members are set out in the attachment to this letter.

We would also like to take this opportunity to provide additional information in order to expand on and clarify four issues raised during the evidence session.

First, in relation to Question 351, about the life-extension programme for the Trident D5 missile, we have a clear understanding with the United States that the programme will not involve any enhancement to the payload, range or accuracy of the missile. Paragraph 1.8 of the White Paper reflects that understanding.

Second, in relation to Question 358, on the White Paper not referring to a sub-strategic role for Trident, we maintain—and plan to retain in future—the ability to vary the numbers of missiles and warheads which might be employed. This, coupled with the continued availability of a lower yield from our warhead, can make our nuclear forces a more credible deterrent against smaller nuclear threats. This was set out in paragraph 4–9 of the recent White Paper and Lord Drayson made this position clear in his speech in the House of Lords debate on the White Paper on the Future of the UK’s Nuclear Deterrent on 24 January (Official Record, column 1107). The text of the White Paper did not represent any change in what has been a long-standing position that we would only ever contemplate the use of our nuclear capabilities in extreme circumstances of self defence.

Third, in relation to Question 401 on possible collaboration on submarine programmes, we believe that there are potential opportunities for mutually beneficial cooperation and collaboration with the US in relation to our respective future submarine programmes, including future ballistic missile carrying submarines. As the Committee indicated, this was referred to in the exchanges of letters between the President of the United States and the Prime Minister. The details of what this might involve in practice will need to be the subject of further work between the UK and the US.

Annex A

1. A note estimating the decommissioning costs of the Vanguard-class SSBNs in the event that a decision was taken to abandon the nuclear deterrent now [Q 337].

It is not possible to provide a precise estimate of the costs that would be incurred in decommissioning the four Vanguard-class submarines in the hypothetical circumstances that a decision was taken to abandon the nuclear deterrent now. In the Government’s response to the Committee’s report on The Future of the UK’s Strategic Nuclear Deterrent: the Manufacturing and Skills Base we explained that the MoD’s strategy for de-commissioning nuclear-powered submarines is currently under review in the light of revised project proposals for de-fuelling facilities and the 2006 report of the Committee on Radioactive Waste Management.

Under current arrangements, when nuclear powered submarines are withdrawn from service they are defuelled as soon as is practicable and stored afloat. A longer term solution to submarine dismantling and disposal with interim storage on land of the arising intermediate level radioactive waste is being sought. If the Vanguard-class submarines were to be withdrawn from service now, the main difficulty would be provision of suitable lay-up berths until they could enter the proposed submarine dismantling facility.

The MoD has made provision in its forward plans for the decommissioning of the Vanguard-class submarines, and other in-service submarines, when they reach the end of their planned operating lives. These plans, together with provision for the berthing and decommissioning of out of service submarines, are reflected in the £9,753,827,000 undiscounted nuclear liabilities, stated in the MoD Annual Report and Accounts for 2005–06 (HC1394). £837 million is included for the decommissioning of submarines, up to and including Vanguard-class.

2. A note outlining how the support costs of £600 million per annum are divided between SSBNs and SSNs, and estimating how much would be saved if the SSBNs were no longer operated [Q 339–340].

We estimate that the current cost of supporting the SSBN and SSN fleets averages around £600 million a year. This figure covers the costs of maintaining the submarines themselves, including for replacement parts and systems, equipment and the operating costs of the naval bases that provide support. It does not include costs associated with supporting the strategic weapons system (ie the missiles and their launch systems and the warheads) installed on the SSBNs.

On average the £600 million is divided more or less evenly between the SSBN and SSN fleets, but there is some variation from year to year reflecting peaks and troughs in major maintenance periods. A substantial proportion of these submarine support costs (around 80%) are considered to be fixed, that is they are not directly activity dependent. Ending SSBN operations could therefore be expected to generate only relatively modest savings in submarine support costs, of less than £100 million a year.
3. The estimated in-service costs of the UK’s nuclear deterrent, expressed in monetary terms instead of percentage of the defence budget [Q345].

We have previously said that the annual expenditure on capital and running costs of the Trident nuclear deterrent, including the costs of the Atomic Weapons Establishment (AWE), is expected to be between 5 and 5.5% of the defence budget. That estimate was based on the planned near cash defence budget of £28,700 million in 2006–07. We estimated that actual expenditure would be around £1,500 million.

4. A note outlining when each of the existing Vanguard-class SSBNs are due to leave service, when each of the new generation of SSBNs will enter service, when a decision is required on whether to procure a fourth boat in the fleet of successor SSBNs, and how the MoD will evaluate whether it can operate continuous-at-sea deterrence with three rather than four SSBNs [Q 383].

The dates when the four Vanguard class submarines are due to leave service, with or without a life-extension programme, were set out in the attachment to the letter from the MoD Liaison Officer to the Clerk of the Defence Committee, dated 1 February 2007.

We plan that the first of the new submarines will enter service around the time that HMS Victorious leaves service (ie around 2024) and that subsequent new boats will enter service as each Vanguard-boat is withdrawn. However, the precise management of the transition between the two classes of submarines will depend on a range of factors, including the number of new boats to be procured, and the availability of the Vanguard-class submarines as they reach the end of their lives.

As the White Paper makes clear, we will not be in a position to make a final decision on the number of hulls to be procured until we have a clearer idea of the design of the new submarines and their likely operational availability. A final decision on this is not essential for some years, but it may prove to be cost effective to take this decision earlier than is absolutely essential in order to inform and help focus subsequent detailed design work.

A key part of the forthcoming concept and assessment phase will be to determine the key design parameters of the new submarines. We will also need to review the operating, manning, training and support arrangements. This in turn will enable us to judge the likely availability of the new submarines and hence the risks associated with seeking to maintain continuous at sea deterrence with a fleet of three submarines. We will also assess the potential financial savings from this approach. This will enable a final judgement to be taken on the cost-effectiveness of a three versus a four boat solution.

19 February 2007

Supplementary memorandum from Professor Richard L. Garwin

These brief comments respond to those aspects of the Ministry of Defence Testimony of 6 February 2007 that bear on my written evidence and oral testimony of 23 January 2007. I have been authorized to write on behalf of my colleagues, Philip Coyle, Ted Postol, and Frank von Hippel.

In response to our statement that the Vanguard class SSBN could well have its operational life extended by 15 years, as was the case with the US Ohio class, the MoD refers to the various systems that would have to be maintained and perhaps replaced if this life extension were to be achieved, and they summarize with the assertion that “the evidence that we have suggests that it would be poor value for money.” Before the MoD can reach a conclusion (going beyond “suggests”), there should be a breakdown of costs by subsystem, and a discounted-present-value analysis of the options of new construction vs. life extension, as we indicated in our written evidence. There should be an explicit discount rate for the comparison of the alternatives.

Defence Minister has rejected the observation that the reduced at-sea hours for Vanguard in comparison with the Ohio-class should make an operational life of 45 years easier to achieve because “The critical time from the point of view of when we measure the life of a boat is from when the reactors first go critical. My understanding is that you may well be able to bring the boat in but you cannot switch the reactor off and there are other parts of the system which will age no matter whether the boat is at sea or not. . . .” Detailed description of the maintenance cycle of the Trident submarines has been provided by the US Navy125 in an article describing the 200th dry-docking of an Ohio-class SSBN at the Intermediate Maintenance Facility, Bangor, Maine. These refits, taking 18–22 days are “designed to be incremental overhauls, conducted approximately three times a year for each TRIDENT boat.” The reactor does not operate while the SSBN is in dry-dock.

Adding to the confusion is that Rear Admiral Andrew Mathews either misspoke or that the transcript understandably erred in recording his statement as “The difference with the Americans is of course that they are generating two or three hulls from 14 . . . .” Perhaps he said or meant to say “. . . they are generating two of three hulls from 14 . . . .”

In fact, the overall at-sea rate of the US Trident is 66%. Roughly 10% of the entire fleet is in refurbishment (one year out of 10) and the remainder is on a normal operating schedule (73% at-sea rate for operational SSBNs). The typical deployment schedule is at-sea for roughly 78 days, and in-port for 28. During the 28 day “refit” period (18–22 of these days may be in dry-dock) the crew that completed its at-sea operations works with the second crew to prepare the ship for its next 78-day second-crew tour.

I do not know the corresponding numbers for Vanguard.

Rear Admiral Mathews identified “things like cables” as components that age at similar rate whether the SSBN is operating or is in maintenance, but it is clear that many do not, among those most of those listed by Defence Minister as problematical for life extension: “replacement of some of the systems critical to submarine operations, such as external hydraulic systems, elements of the control systems (plane and the rudder), sonar systems, electrical systems (including the main battery) and refurbishment or replacement of elements of the nuclear propulsion system.”

So far as non-operational deployments are concerned, such as “training,” these can and should be minimized and at the same time the quality of training and evaluation much improved by the aggressive use of simulators. A Vanguard simulator should have, of course, the same human interface as the submarine, but it would be a “virtual Vanguard” that responds to commands and manipulations as the real SSBN should, but can readily be put into conditions that would be impractical or dangerous for the real ship. Such a capable simulator is no minor matter, but it is of great value.

I close by restating our judgment that the MoD has not communicated sufficient information for the Defence Committee to judge the merits of its case to commit to a renewal of the Vanguard fleet, and our recommendation that more work be done on the substance and cost of a 15-year life extension program, in preparation for an informed decision next year. It would be most helpful to the Committee’s work (and to the MoD itself) to have an in-depth technical review of the issue by an outside expert panel.

19 February 2007