



Select Committee on International Relations

Corrected oral evidence: Nuclear non-proliferation treaty and nuclear disarmament

Wednesday 30 January 2019

11.45 am

Watch the meeting

Members present: Lord Howell of Guildford (The Chairman); Baroness Anelay of St Johns; Baroness Coussins; Lord Grocott; Lord Hannay of Chiswick; Baroness Hilton of Eggardon; Lord Jopling; Lord Purvis of Tweed;; Baroness Smith of Newnham; Lord Wood of Anfield.

Evidence Session No. 8

Heard in Public

Questions 77 - 86

Witness

I: Rear Admiral John Gower CB OBE, former Assistant Chief of Defence Staff (Nuclear, Chemical, Biological), Ministry of Defence.

USE OF THE TRANSCRIPT

1. This is a corrected transcript of evidence taken in public and webcast on www.parliamentlive.tv.

Examination of witness

John Gower.

Q77 The Chairman: Rear Admiral, we are extremely grateful to you for giving us your time, in the light of your considerable experience and expertise. I should say, formally, that this is a televised public session. A transcript will be produced afterwards, which you may make changes to in accordance with what you believe is correct. I remind my colleagues to declare any interests in asking questions. Rear Admiral, you have made some excellent comments and have put in some fascinating papers. Your first sentence is the one that sobers up this Committee: you say that you think that in five years we could be looking at a world without arms control agreements. That is a pretty sobering statement. Could you elaborate on it? Where do you think the failings are and in what direction are they going?

John Gower: Good morning, Lord Chairman, and thank you for the opportunity to give evidence. The failings are manifold, predominantly among the two main powers for which the majority of the arms control agreements have been tangible: Russia and the United States of America. It almost goes back to the cessation of the Anti-Ballistic Missile Treaty by the Americans in 2002. Certainly, the Russian Federation has seen this as a distancing by the US. The most recent decision of the President in declaring a unilateral INF Treaty¹ departure is, in the eyes of Moscow, a continuation of this trend. But it is not just those two treaties in the nuclear domain. The conventional forces treaties in Europe—between NATO, largely, and the Soviet Union and now the Russian Federation—have become more moribund, to the point that the fallout from Ukraine and the Crimea annexation, which has caused a freeze in NATO-Russia relations across the board, has prevented the rejuvenation of those conventional treaties, which provide the backbone on which the strategic nuclear treaties are based. The last surviving treaty will be New START, or START III, as the Russians call it, which, unless it is extended, will die in 2021—hence my comments.

The difference between the 1970s and now, which makes the rejuvenation of new treaties more challenging, is that in those years, although we had huge ideological differences with the Soviet Union, many of those were set aside for discussions between the two superpowers on nuclear arms reduction. The main 21st-century difference is total linkage of everything. It is challenging if you link human rights to interference with elections and to economic controls and sanctions—if you link everything to everything, you are much less likely to get progress. One way in which this impasse could be broken would be by regenerating trust through breaking linkages and saying, 'This is such an important issue that we should have dialogue on it whatever our other differences, be they on Ukraine, Russian interference in elections or cyberwarfare. This needs to be set separately'.

¹ The Intermediate-Range Nuclear Forces Treaty

The Chairman: It is a gloomy scene. Let us look at the roots of it for a moment. Why do you think that it is so different from the simplicities of the bipolar world of the 1970s and 1980s? Is it technology? Is it new waves of nationalism? Is it third, fourth and fifth players coming into the equation? Where do the roots of the instability lie?

John Gower: It is a combination of all those. One of the largest changes is the position of the Russian Federation, which was previously the balancing superpower in the largely bipolar nuclear world. It suffered a massive dip in status and position and is now on a rise, attempting to reassert itself. That is characterised in the most recent American *National Security Strategy* as the rejuvenation of interstate competition—in fact, we mentioned the same thing in our 2015 Strategic Defence and Security Review. So the major change is the position of the Russian Federation and its desire to reassert itself and to be taken seriously in a way that it has perhaps felt for the last 15 years it has not been. President Putin is doing that for a combination of internal and international reasons. In addition, the new nuclear actors are influencing the positions of both the main players. I am thinking in particular of India and Pakistan, but also more recently the DPRK.

The Chairman: Do you think that Trump's line on the JCPOA² and the whole Middle East cauldron has added to the problems?

John Gower: Absolutely. There is a thread between the removal from the Intermediate-Range Nuclear Forces Treaty and the removal from the JCPOA by the current Administration, which can be viewed as a rejection of the international rules-based approach to managing these. There is evidence of a reasonably clear partisan approach to the Middle East that fuels that. The language of senior officials—the President and the National Security Advisor in particular—when giving their view of the threat of a potential Iranian nuclear capability is different from that of the countries in the JCPOA other than the US. If I may give an example, in 2017 I was present at a conference in Moscow at which the US was clearly not there, although every other country was, including all the European members of the JCPOA committee and the Iranian Deputy Foreign Minister. It was absolutely clear at that time, which was soon after President Trump had announced his intent to separate the US from the JCPOA, that the Russians were painting the Americans as the problem. That has fuelled a significant part of these issues.

Q78 **The Chairman:** You have written extensively on trying to restore nuclear strategic stability—indeed, on defining what it is. Could you say a little more about where one should go in this new situation to return to the stability that we had in the last century?

John Gower: I am not sure that the stability of the last century is necessarily to where I would wish to return.

The Chairman: I am thinking of the bipolar relationship between Russia

² The Joint Comprehensive Plan of Action (the Iran nuclear deal)

and America.

John Gower: I do not think that we will ever get back to a bipolar relationship. We should seek a stability that is multipolar. That is quite a big elephant to chew but, as I said in my paper, there are three clear drivers to improve stability. One is the lack of arms control agreements, but the other two are also significant. They are the risk of misunderstanding and misinterpretation, which derives from a lack of trust and lack of dialogue and some of the policy directions, and the other is the incipient new arms race, which can be inferred from the *Nuclear Posture Review* of 2018 and President Putin's response speech in March 2018. All three deliver risks and threats to nuclear strategic stability, as I define it—and I emphasise that it is my definition. One thing that has proved the most difficult is getting an international agreement on what strategic stability means. It is clear that in both Moscow and Washington there are people who define it as, 'As long as we can win any conflict, that is a stable world'. Clearly, that is not my definition, but it is a view that is held. Many academics and commentators have tried to get an agreement on strategic stability. That is why I sought to try to define it in the strict nuclear sense, which is about reducing the risk of nuclear employment.

Given those three challenges, the immediate challenge for us is to defuse and take temperature out of the current situation. You do that largely through dialogue, which is challenging at the moment because of the lack of opportunities for such dialogue post Ukraine and the current tensions and increasing transparency, looking at the declaratory postures and policies of all those involved—all the states that have nuclear weapons capabilities, not just the five within the Nuclear Non-Proliferation Treaty, but the four others that either clearly have or are believed to have a nuclear weapons capability.

So I have recommended that work should be done on trying to improve and defuse some of the inflammatory statements that some of the senior people in some of these countries have perhaps made. There is potentially a role for the UK because I and others believe that it is the most restrained of the nuclear-weapon states; it has reduced to a single, strategic, politically controlled system. I think there is a role for the UK in influencing this process, either through the P5 or through the Review Conference in 2020.

The Chairman: Can we look at the idea of cutting through and banning everything?

Q79 **Baroness Hilton of Eggardon:** What are your views of the Treaty on the Prohibition of Nuclear Weapons, the so-called Ban Treaty? Do you think it has been a disruptive element in diplomatic discussions about nuclear weapons?

John Gower: I do not think it has been disruptive yet, but I think it has the potential to be disruptive, inasmuch as countries have only a certain amount of bandwidth to do arms control and risk reduction. The vehicle

for that—here I am very much of the UK Government’s position, although I am no longer one of their officials—is the Non-Proliferation Treaty. In my view, the Ban Treaty is toothless, because it cannot mandate upon those countries that have nuclear weapons: none of those countries has signed up to it nor is likely to do so. So while in the eyes of some it has a certain moral value, for me it sits in waiting for the process through the NPT to make progress towards that position. Then, if you like, it is the cap or seal on the disarmament programme inside the NPT. If we allow it to become a distraction it will be so.

The challenge of the 2020 Review Conference is to make sufficient progress on the steps that were agreed at the 2010 conference such that those countries whose vent was through the so-called Ban Treaty will see the NPT as a continuing, viable process. The biggest challenge to the NPT being a continuing, viable process is that it has its own cul-de-sac, in that it does not include, almost by its own statute, the four de facto nuclear-weapon states that are not inside it. One of the significant challenges for 2020 and beyond is to engage with those countries without creating a reward structure for other countries to leave the Non-Proliferation Treaty and proliferate.

Lord Hannay of Chiswick: I want to follow that up because you say that this issue has not disrupted the NPT yet, but it is odd, is it not, that the only countries which have signed the Ban Treaty are already bound by their obligations under the Non-Proliferation Treaty? There is no signatory to the Ban Treaty which is not already a signatory of the Non-Proliferation Treaty and therefore bound by those obligations. They have not added anything to their obligations and the verification processes under the Ban Treaty seem to be weaker than those under the Non-Proliferation Treaty. That in itself is a bit disruptive, is it not?

The other problem that perhaps you will comment on is that both sides of this argument seem incapable of keeping away from having at each other in a totally un-useful way. That is to say, the P5 devoted its statement to the First Committee in October or November mainly to denouncing the Ban Treaty. No doubt when we get to the RevCon the signatories to the Ban Treaty will spend a lot of their time denouncing the P5 and the four other nuclear-weapon states. The disruptive potential is there, is it not?

John Gower: I do not disagree that there is significant disruptive potential but I was answering the question: has it yet disrupted? I do not think that is yet the case. I have sympathy with the way the Ban Treaty came about, but I think the end state is, as you say, potentially very disruptive. One of the challenges in preparing for the 2020 Review Conference is to seek to engage with those countries which are signatories to the Ban Treaty but which are, you might say, perhaps more reasonable and discussive countries within the NPT, to make it clear that wasting time, friction and heat on arguing about the Ban Treaty, as opposed to making progress under the three pillars of the NPT, will waste an opportunity that will not come around for another five years.

The three pillars themselves sometimes obscure the very real manner in which you can move forward. First, you must maintain strategic stability through a combination of deterrence and risk reduction. Those are the foundations upon which the three pillars can stand. At the moment, the way the Ban Treaty is constructed is that the three pillars stand but arguably not upon anything of work. My view therefore is that, yes, it is important to take work through on the three pillars, and perhaps most aggressively the disarmament pillar, but you cannot do that work—none of that will progress, whether the Ban Treaty exists or not—unless you have defused the current rise in temperature with some risk-reduction work.

Q80 Lord Wood of Anfield: I want to come back, partly as a devil's advocate, to make the case for the Ban Treaty. First, a lot of people who are passionate about it think it is a norm-changing exercise rather than a rival set of institutions. Putting that to one side, they might also say, first, that the NPT was a structure set up with the premise of the Cold War, where you had two hegemon capable of exercising the discipline that was needed to make non-proliferation a reality, and that world has gone. Secondly, what is the counterfactual if the Ban Treaty stopped their pressure? What would be the minimum that the NPT should be achieving in order for them to say, 'Okay, the existing structures are doing enough'? I think they would say that the counterfactual is that the NPT is just ticking along: the machinery is there but is it really achieving the goals that it was set out to reach?

John Gower: I think that the evidence is that two of the three pillars of the NPT have been extremely successful. In the 1970s, when the NPT was being discussed, it was projected that by the turn of the century there would be between 30 and 40 nuclear-armed states. Clearly, we have ended up with more nuclear-armed states than the P5 at the time the treaty was signed, but many less than those fears. So I think the non-proliferation pillar has been successful. The peaceful uses pillar has largely been successful, because it tied in with the non-proliferation pillar. So the genesis of the Ban Treaty was largely dissatisfaction with the disarmament pillar and the perceived lack of progress.

However, the way in which the nuclear-armed states, the P5 in particular, engage is largely in a ratchet. If you make progress—you have strategic arms limitation and reduction talks between the two main powers, and the fact that the UK has made significant reductions over the last 30 years—it is a ratchet that always resets to zero. I understand why the non-nuclear-weapon states, particularly those that are most active in the Ban Treaty, want to reset to zero and do not give credit: it is because the end of Article 6 is their objective.

The Ban Treaty grew, as I am sure you are aware, out of humanitarian consequences. It used to gall me slightly when I was serving the last few governments that one main reason that the UK maintains its deterrent is because it is only too aware of the humanitarian consequences. Therefore, while these weapons exist in the hands of states with perhaps significantly different objectives from ours at times, and given the long-

forecast future, humanitarian objectives are best achieved by a reasonable level of strong deterrence. That is why I started my remarks by saying that deterrence remains necessary, and to a certain degree more necessary than in 2009-10, which I suggest was the sweet spot post the end of the period known as the Cold War.

No one has greater knowledge of the humanitarian consequences than those who seek to deter it. The Ban Treaty was generated largely out of frustration, but it does not take into account the reductions that have taken place. But I agree that it is right to perceive today that the disarmament pillar goals are further away and less visible than they were in 2009-10, which means that the risks are significantly higher, as I have written.

Arguably the threshold of nuclear-weapon employment is lower today and will be lower still when the weapons under the 2018 NPR in the US and Putin's response are fielded, and without an INF Treaty to moderate that. That is all the more reason why you should do significant work on risk reduction and confidence building: to get back to a position where you might see progress on a disarmament pillar. I agree with the thought process behind all this: that there is a disruptive future unless we do that.

To go into two factions—those who are seeking to drive the nuclear-weapon states to progress through the disarmament pillar and those who seek to shame them through a legal statute to which they have not signed up—will, first, shame only America, France and the UK, possibly. It is unlikely to shame the other six countries that have nuclear weapons. Secondly, it will probably not change the US position either way. So you reduce the number of countries that will be affected to those that perhaps have the least skin in the game.

Q81 Lord Purvis of Tweed: To some extent, my question follows that point. In previous sessions we have been told that one of the consequences of what is termed the modernisation programme for the nuclear powers will be committing investment well into the mid-century and potentially beyond. If we are further away on the disarmament element, with committed expenditure investment possibly well into the mid-century, I just wonder where the external pressure is likely to be levered if it is not through the mechanism that we have been talking about.

The second component of that question is: do you detect any change in the position not just of the nuclear powers themselves but of countries that host nuclear weapons? If there is one area where, again, global situations change quite dramatically, it is that the countries that used to be the two large powers no longer have the satellite states or sphere of influence that they had then. Is that an area where there is movement, change, in the demeanour of the hosting countries? Is there an opportunity to look at those?

John Gower: Those are two very different parts of the question, so I will deal with them separately.

Undoubtedly there are cyclical significant expenditures. The United Kingdom is probably two-thirds of the way through a cyclical expenditure, having decided to replace the delivery platform—the submarines—having essentially agreed before that to co-fund the missile extensions with the US. So the third leg of the modernisation—I am now completely out of the loop and out of date by four years—is to understand where the UK goes in sustaining a warhead to the end of the life of the submarine and the missile.

France is pretty much aligned in timescale with that, and the US is potentially always modernising—it is not so much a cycle as a continuous issue for them—and in my view there is a greater window of opportunity to achieve motion between those cycles of expenditure than there is during a cycle of expenditure.

For those who want disarmament today, and all of it, that will always be too slow and too much pie in the sky. My view from a pragmatic perspective, looking at the likelihood of Article 6 being achieved—even President Obama said, 'Not in my lifetime, and possibly not in my children's'—the time to make progress is when you are not actively considering modernisation. If you fail to do that, you will be in another modernisation 20 years later.

That is where I think the UK finds itself, which again underlines why I feel that the UK might be in a position over the next 10 years to influence the delivery of greater transparency, greater trust, greater restraint in declaratory statements—possibly not as far as no first use or sole purpose for nuclear weapons, but going down the route, because between here and zero there are a certain number of lenses through which you must pass.

They must at some stage include sole purpose and no first use, but that is challenging, particularly in the NATO Alliance, which leads me to your second question. The NATO Alliance is the only alliance remaining where the nuclear weapons of one nuclear-weapon state rest permanently in non-nuclear-weapon states. Again, I left discussions in late 2014, so my immediate experience of that is frozen at that time. But I was there during the Ukraine crisis, which might have been the time when the NATO Alliance once again became the most robust across all elements of the countries in it when the view of the threat from Russia was catalysed by the annexation of Crimea.

Even during that time, there was a spectrum of opinion within NATO about its nuclear weapons status and how and what it should do. That spectrum was brought together in the 2010 Strategic Concept, the 2012 DDPR,³ and the biennial statements at summits. Those from 2010 to the most recent have been growing more and more, not belligerent—that is perhaps too strong a word—but certainly more robust towards Russia. I think it is time for NATO to conduct another deterrence review to understand how it does that.

³ The Deterrence and Defence Posture Review

It is also not impossible for NATO as an alliance to end up with a different declaratory policy on its nuclear dimension from its constituent nuclear-weapon states. At the moment, it does not. Clearly, it cannot have a more aggressive one—it would be unlikely to do so—than the United States, but it could have a less aggressive one, which would raise the profile of the Secretary-General and those states.

Will the states that host nuclear weapons counter within NATO the US position? I do not think so. At the moment, given the cohesion of the NATO Alliance, particularly when you take into account the eastern countries that joined NATO with certain assumptions about how NATO would protect them against Russia, I do not think that the addition of states at greater risk from or with greater worry about Russia would allow a change to be made.

So while the strongest states, particularly Germany and the Netherlands, view risk-reduction and transparency measures as their priority over the next two to three years—I had discussions immediately before this session with a member of the MFA from the Netherlands—I do not think they would go as far as challenging at the moment the existence of those nuclear weapons in their country.

The Chairman: Can we talk about other disruptions?

Q82 Baroness Smith of Newnham: We have been talking about disruptions that in a sense are status quo disruptions and the P5+4. But we have also been talking very much about nuclear-weapon states. First, do any technological changes mean that non-state actors could in future be a cause of proliferation, and are new technologies therefore likely to alter the nuclear diplomacy issues? Secondly, to what extent could future technological changes undermine nuclear deterrence? It is the sort of issue that Lord Browne frequently talks about: the dangers of cyber and so on.

John Gower: There remains a risk of non-state actors gaining access to a nuclear weapon, but I believe that is through access through a current nuclear-weapon state. Either that nuclear-weapon state chooses to give a non-state actor a weapon, or the security of the weapons in that state is such that they could take one.

My personal belief is that the risk of a non-state actor producing a nuclear weapon, through 3D printing or whatever you see as possible avenues, to be very low indeed. Partly as a result of the Nuclear Non-Proliferation Treaty, the Nuclear Suppliers Group, the Australia Group and other things that have come out from it, the ability of a non-state actor to get hold of the kit, expertise and material needed to build a bomb is very well controlled. If I had to cascade risks, that would be at the bottom of the tree.

Further up the tree is, as I say, a state with perhaps greater opportunities to lose control of its weapons. All we can do is continue dialogue with these states. One of the challenges in the NPT is that the

UK and other nuclear-weapon states within the NPT cannot have formal Government-to-Government talks on nuclear issues, because that steps on the boundaries of the Nuclear Non-Proliferation Treaty. That is another reason why opening those boundaries would be helpful.

Of the threats that I was responsible for countering in the Ministry of Defence—nuclear, chemical, biological and radiological, as well as missile defence—that of the non-state actor getting hold of a nuclear weapon was pretty low. So when it comes to where I would expend energy, I do not forget that we deter a nuclear-weapon state from passing weapons by pointing the finger at that nuclear-weapon state if it does it. Touching wood and everything else, so far that has been reasonably successful, and the likelihood of another AQ Khan is much lower today than it was in his time, given the way all the countries have tightened themselves up, even countries such as Pakistan, whence AQ Khan came.

I will answer in three parts the second part of your question about the disruptive effect of new technologies on deterrence and other things. First, 20 or 30 years ago, and all the way back to the beginning of the atomic age, there was nothing in the conventional or other arms briefcase that could deliver the effect at range with the accuracy and the impact of a nuclear weapon.

That is no longer the case, so while the impact is still different from a nuclear weapon, you can begin to have strategic effect now, today, with precision-guided long-range conventional weapons, and in particular with the targeting of cyber—I will come back to cyber, if I may. The US in particular, Russia, and to a certain extent China have made it a sales point of their investment in these technologies that with them they can do the things that they could do previously only with nuclear weapons.

You could argue that this is a good thing in one way, because it means that in conflict they might not resort to nuclear weapons as early as they would have done before. But the challenge for me, and the reason why I set out in a paper a 10-point code of responsibility for nuclear-weapon states, is that there is entanglement between conventional command and control and nuclear command and control, and you are perhaps not exactly sure how those are entangled.

Take a look at the United States, which seeks to hold at risk Chinese command and control conventionally with long-range conventional weapons. That may be the same command and control that China views as essential for its nuclear weapons. There is a risk of entangling the two, and that is a challenge.

Poorly envisaged cyber-offensive capability can also have that effect. When I was responsible for these things, I likened cyber to biological weapons, because by and large you can draw a circle around chemical and nuclear weapons and understand the effects. With biological and cyber, you cannot be so certain. With a biological weapon you may not be certain that the attack has occurred. There are scientists who believe that the last foot and mouth epidemic did not occur naturally. I do not happen

to agree with them, but they looked into it epidemiologically and said, 'It has to be manmade'. But you are not sure, and cyber is the same: you cannot be sure that the problem you have is because someone has attacked you or because you have just pressed the wrong buttons.

The other part of it is that you cannot keep the attack within bounds. If you have incorrectly assessed the opponent's command and control, or whatever you seek to attack, and you have not worked out where all the connections are, an attack on one thing may also attack another. So the challenges that new technology brings are, first, the entanglement between high-end conventional and cyber. So although I agree with Lord Browne on a number of things, I disagree with him on this particular issue.

I was at a conference specifically on this issue in America last week, and at the moment the risk of a cyberattack on nuclear capabilities is extremely low, largely because most of those nuclear capabilities were conceived and built before cyber, and certainly in the United Kingdom there is no connection between the internet and our nuclear command and control. But that might not be the case in the future, for the US is about to revamp its nuclear command and control for the 21st century; it is a big programme.

One reason why we were sitting around a table last week was to advise the US that, if it seeks to bring in artificial intelligence and internet-based technologies in its nuclear command and control, it is of course opening up a box of risk that it needs to take into account. There is no risk that a hacker could launch a weapon, prevent a weapon being launched or explode a weapon today, but the more you integrate the systems, the greater the potential risk.

The final part of the answer to your question is that nuclear deterrence and nuclear crisis management are about understanding the situation you are in, in steady state and in crisis, and about having a mutually agreed picture with the adversary and then being able to communicate. I argue often that that has changed from the near-certainties and the abilities to communicate. You may have watched the President and Kim Jong-Un's spat 18 months ago. That was not how deterrence communications were done, but now they are. It is very difficult to tell what the US government's position was on it, because they were multiple-messaging.

So the way in which states articulate their position, particularly in crisis, is much more complicated today, and their picture of the world is susceptible to management, distortion and disruption in a way that it was not 15 to 20 years ago. I believe that it is a new technology that affects the nuclear dimension. I hope that answers your question.

Baroness Smith of Newnham: Yes, thank you.

Q83 **Baroness Coussins:** You said that the risk of nuclear weapons use by non-state actors is at the very bottom of your risk scale. Where would you put on that scale of risk the accidental or unintentional use of nuclear

weapons? We have heard from another witness that, in his view, accidental use was now the most likely reason for the use of nuclear weapons, because of cyber technology, the speed of decision-making required and so on. Where would you put the risk of accidental nuclear weapon use?

John Gower: Can I be a bit pedantic on definition? I assess that your question is about 'misinterpretational' use rather than accidental use. If you are a nuclear-weapon state and reading the signals entirely wrongly, and you then launch a weapon because the picture you are being given is not right, that, I would say, is misinterpretation but not a risk by accident. Accidental use, in my view, is when you are doing a training exercise and a weapon goes off by accident.

By accidental use, do you mean a decision by a head of state to employ a nuclear weapon because of wrong information, or that my missile guy might press the button by accident? I am not sure. I am just trying to understand which of the two you mean.

Baroness Coussins: Now you have said that, I am not sure either.

John Gower: Having made that split, I still think that the risk of accidental use, certainly among the five recognised nuclear weapons states, is quite low, but that there is the risk of 'misinterpretational' use, either because you have escalated or you do not understand the signals that the other country is sending—President Trump is tweeting, 'I'm going to blow you up', and someone sends a missile over because they think he actually means that at that time. The risk of misinterpreting the situation and escalating quickly, either within a conventional conflict or out of the blue, if you like, simply because there is a spat at the highest level is quite high, and I would agree with the previous witness.

Baroness Coussins: Certainly the phrase 'accidental use' has been used by a number of other people. I do not know what they all mean by it—perhaps different things.

Lord Hannay of Chiswick: Agreeing with your distinction there, taking Able Archer as an example, that was a misinterpretation of the situation.

John Gower: Yes, it was a misinterpretation, indeed.

Lord Hannay of Chiswick: It was not somebody accidentally pressing the wrong button. I agree that they are two quite different things.

The Chairman: In some sense what you are saying is reassuring. You have done James Bond and Tom Cruise out of a job but obviously there are other events that could happen. Let us spend the last few minutes on our own UK role in all this.

Q84 **Baroness Anelay of St Johns:** As we look forward to the next RevCon and what that may bring, I ask you to turn your mind again to what opportunities there are for UK leadership there, particularly because we are about to take over the chair of the P5 process. You have already

helped us enormously by signposting some of the leadership opportunities the UK could adopt—some of them ambitious and intriguing about breaking the linkages between discussions on that and human rights and sanctions. What would be your priorities for the UK in showing its leadership in this period?

John Gower: If I can go back to what I said at the start of my evidence, the UK continues to be, and in fact increasingly is, the most restrained of the nuclear-weapon states, particularly in terms of our declaratory policy, although that still has caveats in it. We retain a degree of ambiguity, which for a long time was considered—and I was certainly one of those who signed up to this 10 or so years ago—to contribute to deterrence. However, I am not certain that that is an enduring truth. There is strong reason for there to be discussion within the P5, and separately within NATO, as to whether the continued ambiguity of our Alliance posture, and indeed the UK posture, contribute to deterrence. While ambiguity complicates the mind of an adversary, it also adds to the chance of misinterpretation. If you are ambiguous that sort of factor of three makes its interpretation of you more complicated. It is my judgment today that by reducing the amount of ambiguity in certain areas we can show restraint, which assures both Allies and non-nuclear-weapon states that the circumstances in which the UK might employ a nuclear weapon are very remote and very extreme. So we deter the breaking of the nuclear taboo in existence since Nagasaki on 9 August 1945 but we do not contribute to the misinterpretation risks that might break it.

Ambiguity clarification is an area which would be helpful, not only to ourselves but other nuclear weapon-capable states. For instance, India has a well-touted 'no first use' policy, but it is a policy of 'no first use except'. No first use is a binary thing so to say 'except' means that you do not have a no first use policy. But India says 'except' because we say 'except' because the Americans say 'except'. My personal view is that the sorts of non-nuclear attacks against which the US, and to a certain degree the UK, retain ambiguity about whether we would respond with a nuclear weapon are extremely unlikely to be responded to with a nuclear weapon. If I can work that out—I am a simple sailor—I am sure the adversaries can as well. There is room for serious discussion within and between governments about that.

As I have said, the ability within the NPT to lead discussions with nuclear weapon-capable states that are currently outside the NPT is a significant means to reduce these risks of misinterpretation and miscalculation. At the Review Conference the UK could take a lead in advocating that, although my personal judgment is that that is best delivered as a concept by a non-nuclear-weapon state, preferably one that is also a signatory to the Ban Treaty, and supported by nuclear-weapon states. I am not sure that the UK introducing it would be the best thing.

Another things I have suggested is that the Reagan doctrine, which became the Reagan-Gorbachev doctrine, from his State of the Union speech in 1984 that a nuclear war can never be won and therefore should not be fought, is one that those nuclear-weapon states that emphasise

the extremity of the use of their weapons today could comfortably sign up to. There are issues within those things.

Finally, there are couple of things that the UK could perhaps consider internally. There has been a lot of discussion in the United States—not solely because of the new President but certainly kick-started by his arrival. It actually started at the time of Watergate, when President Nixon spent four or five months drunk. There was a lot of concern then within the White House about the sole decision-maker being in an unfit state. Obviously, the appearance of President Trump has re-triggered those concerns and there remain a couple of Bills on the floor of the Senate about whether the President should be constrained to be able to launch a nuclear attack only if Congress have given permission. In the UK, we have the Prime Minister as the sole decider of that. While retaining that as an important political control, you could conceive a gateway of decision that the Prime Minister would constitutionally be required to go through, whereby three or four members of the Cabinet would say, 'Yes, you've got to a position where you can make this decision. Now go and make it'. I call it the B-59 idea after the Russian submarine in the Cuban missile crisis, where two out of three people said yes and one said no and they did not launch a nuclear torpedo. But I do not think that those sorts of things, which would publicly show restraint and provide assurance to non-nuclear-weapon states, would change in any way the ability of our deterrent to deter.

Finally, as the nuclear-weapon state that has reduced to a single strategic system, we should continue to advocate for that reduction elsewhere. The main reason I say that, and it comes back to a certain degree to the misinterpretation question, is that nuclear-armed cruise missiles in particular are generally launched from platforms—aircraft, ships, submarines—which also launch conventional cruise missiles. These dual-capable, dual-purpose platforms create massive miscalculation risk. We ourselves have launched cruise missiles from submarines into the Middle East and Kosovo over the past 18 or 19 years. If you know that that is also potentially a nuclear weapon and you are launching conventional weapons against or close to a nuclear-weapon state, it is very difficult for that nuclear-weapon state to trust that there is a conventional warhead on the end of the missile and it is a bit difficult to tell until it has gone off. So the mere fact that you hold dual-capable weapons in your arsenal adds to the risk of miscalculation, misinterpretation and escalation. That is another avenue where the UK not having those weapons—and we got rid of our last so-called tactical nuclear weapon in 1994—we can take a leadership role among the nuclear-weapon states.

The Chairman: Are you saying that the distinction between tactical and theatre and intercontinental missiles is blurring dangerously? Is that the point you are making?

John Gower: My initial point is that today every nuclear weapon is a strategic weapon, even if it were a nuclear hand grenade, because it breaks the nuclear taboo. But to have these distinctions, which many

countries do, particularly the US and Russia, drives a mindset and an ethos. When I joined the Navy in the 1980s I slept as close as I am to you, Lord Chairman, to a nuclear weapon. Every frigate in the Royal Navy had nuclear weapons on board. All the frigates and destroyers that went to the Falklands had nuclear weapons on board. We took them off before they went to the Falklands but they sat in a ship to the east of the Falklands. The mindset of my contemporaries was that this was just another weapon. Yes, you had to go through a whole host of procedures to use it but it was a weapon in our arsenal because it was there. That is a very different mindset from that of the young officers in our services today. It is my experience that in the United States—I have not had much experience in Russia, the Security Service will be glad to know—this is the same issue. Because they have these weapons, each generation has a mindset that is aligned to these weapons as weapons of use, beyond deterrence. That is a significant issue. Not only are they more likely to be used because their impact is less—between Russia and America, the place they might be used might be neither of their homelands, so the threshold is reduced—but the mindset is there, particularly in the military population, and in the US and Russia to a certain extent the political population as well.

Q85 Lord Grocott: I would love to have some follow-up on President Nixon's drinking habits, but we will leave that to one side. The phrase you used that I do not think any of our other witnesses have is 'reducing ambiguity'. I cannot quite get how you reduce ambiguity. It is either ambiguous or it is not, to a degree, is it not? Given that constructive ambiguity is so central to a lot of the discussion that we have heard, I know we are on a pinhead here but I do not quite get how you would reduce ambiguity.

John Gower: Our negative security assurances, as amended last in 2010, were first set out in 1995, largely as a result of the International Court of Justice deliberating on the legality of nuclear weapons. The nuclear-weapon states delivered their first negative security assurances during that process as part of their lobbying to say, 'Actually the ICJ should not even rule on this. It is not right that it does so'. We have amended them occasionally over time. They were amended in 2010, largely to remove the so-called Warsaw Pact clause, which said that we would never attack a non-nuclear-weapon state unless it was aligned with a nuclear-weapon state, so it was aimed at the Warsaw Pact countries because they were linked with the Soviet Union attacking us. It took us and America and France some 15 years after the fall of the Berlin Wall to do that but that is what the 2010 amendment did. But it introduced a new caveat that said, 'We reserve the right to change this if someone builds a large chemical or biological weapon'.

The United States' latest *Nuclear Posture Review* has actually widened that. It already had the caveat about chemical and biological weapons; it now talks about any strategic attack against the US. It concentrates on cyber but it also talks about other big attacks against the US, which to a certain extent has widened the ambiguity on when it would consider a

nuclear response to be necessary. So there is a spectrum of ambiguity from, 'We will attack anybody at any time if we believe we are threatened' to, 'no first use'. Sole use is a walk-back from no first use and then there is the removal of the caveats against other strategic attacks and against cyber and removal of the chemical and biological caveat. On each of those caveats, which I believe are all ambiguity caveats, you have to judge whether the residual deterrent effect of retaining them is worth the risk of not being seen to be a restrained nuclear-weapon state.

- Q86 Lord Purvis of Tweed:** This follows up the question from Baroness Smith with regard to cyber, not necessarily the use of cyberattacks on the equipment itself—you said that that remains a low vulnerability, which is reassuring—but, as we heard in Committee meetings on an earlier inquiry that, the development of the decisions in NATO to have offensive cyber capabilities. One would think that one area where that can be in place is the very point you mentioned about the vulnerability of knowing whether or not a nuclear weapon has been deployed. One of the offensive capabilities would be to confuse an enemy so that they do not know what we are doing. Presumably, that could be a key component of that. That capability of affecting other systems for detection, verification or interrupting the political chain of decision-making can now potentially be deployed by non-state actors as well.

What systems are in place to prevent the first use of the existing nuclear weapons? Are there discussions? Are there systems in place to ensure that that level of ambiguity is not targeted by offensive cyber weapons? Where is the current level of vulnerability of other elements, rather than the actual nuclear weapons and systems themselves, to potential non-state actors?

John Gower: I cannot speak about current levels of vulnerability, obviously, because I am out of date on that. But I can assure the Committee that within the United Kingdom there is a body of people, for whom I was previously responsible, whose job it is to examine these threats and advise how they are best contained. I do not think that the UK is the most affected by these risks, simply because we are the most restrained nuclear-weapon state and the number of hoops that any Prime Minister would have to jump through is a lot higher than in other nuclear-weapon states, perhaps.

A suggestion I make in one of my restraint papers is that within a code of conduct there is a formal agreement that nuclear-weapon states and non-nuclear-weapon states would refrain from any kind of targeting or degradation of the satellites and the command and control infrastructure, so there is not a risk of misinterpretation through that. Of course, that does not apply to non-state actors but it begins to isolate the non-state actors a bit.

Another issue, which we discussed in Stanford last week, is everyone's idea of the way in which Russia, the United States and China would talk to each other in a crisis—a telephone painted red, or some other colour—

we do not really have any more. This has fallen out of existence. The former security boss of Google was at the conference and one thing that was discussed was whether there was a positive advantage of new technology in that there could be an open-source but secure way in which countries could talk to each other at the head of state level. One of the ways of solving that would be to have a hotline—however it is in the modern era.

There are two elements of the offensive cyber threat. The first is that within the countries that are developing cyber-offensive capabilities, they are very highly classified and they sit within stovepipes. These stovepipes are almost certainly not occupied, if my previous experience remains correct today, by the people who think about nuclear issues. They are in a different stovepipe. In common with a lot of novel technologies, the brigade of people who are investigating 'What can we do?' are not necessarily connected to the brigade of people who are looking at 'What should we do?' There is a lack of international agreements on what the boundaries of some of this stuff should be. I think there is an avenue approach there. But also internally within Governments there is not perhaps the right amount of connection between 'What can we do?' and 'What should we do?'

The second area of concern is artificial intelligence. It is being sold on the commercial level quite aggressively as a solution to a large number of our ills. But if one thing is certain, if such a technology is available to be given a military context, someone will do it. I do not think it will start in the nuclear domain. In fact, General Hyten—the commander of US Strategic Command—is on record to say that he would never take all of the humans out of all of the loops, which is helpful. But there are areas where you can envisage AI being used pretty soon—perhaps drone activity is one of them—but it would not take much for that to leach across into other areas. There is a Russian defensive system called Perimeter which is open source, which is the Dead Hand retaliatory strike from the Cold War. At the moment it has a single decision officer, and I can go into detail afterwards if you want, who will be part of the decision chain—and I know when the Soviets initiated this they looked at it being a totally automated system, not that far from the system in Dr Strangelove. So there is a risk of AI coming into these areas, not only in command and control but in the gathering of intelligence in such a way that the picture presented to a decision-maker may not be exactly the picture that is out there. That is either through AI sifting through the information and assisting but also through interference with that picture through the sort of strategic effect of fake news, but better targeted.

I agree that these are all areas of concern. My initial solution is to look at finding ways in which heads of state can rapidly, effectively and securely be sure who they are talking to at either end—a means of communication through which they can, if necessary, speak and take the misinterpretation risk out of the equation.

The Chairman: You have given us light and shade in this scene. You

have ticked the box of the UK being one of the most restrained nuclear powers, along with France, presumably. Obviously, it is a reputation we have to live up to. On behalf of the Committee, thank you very much for your fascinating insights into all these issues, which will be of enormous help to us in our inquiry. We are most grateful.