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LOOKING FORWARD ON NUCLEAR ARMS CONTROL:
Panel 2: The Challenges of Moving Toward a World Free of Nuclear Weapons

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Moderator:

FIONA HILL
Senior Fellow and Director
Center on the United States and Europe
The Brookings Institution

PARTICIPANTS (CONT'D):

Panelists:

RICHARD BURT
United States Chair
Global Zero

DARYL KIMBALL
Executive Director
The Arms Control Association

DEEPTI CHOUBEY
Deputy Director, Nuclear Policy Program
The Carnegie Endowment for International Peace

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MS. HILL: Well, I think we'll get started on the final session of today's conference. I had also people who were rushing from the building as I came back in. He said that they wanted to stay, but, unfortunately, he'd been pulled away for other things and we're passing on apologies. So I don't think the fact that we now have slightly less people in the audience than we had earlier is reflective at all of the interest in this topic.

MR. TALBOTT: How gracious of you to say that.

MS. HILL: Well, I know it's not. Look, Strobe's still with us at the back here still, too.

This final panel for the day is going to push us even further forward than where we've been over the last two sessions. We started off with the most recent issue with START and, obviously, the focal point of the bilateral nuclear relationship between the United States and Russia. We heard from Jon Wolfsthal about the current plans for the Obama Administration. And with this panel we're going to look really far forward into the future on some of the near future issues on the bigger agenda of the nuclear weapons discussions of moving towards a world free of nuclear weapons, which, of course, has been a long-held desire of many people on different sides of the Atlantic.

Someone when I first came in was asking me if I'd ever in my youth been a member of the Campaign for Nuclear Disarmament back in the day in the U.K. I wasn't, but my aunt, who was one of those women from Greenham Common who tied us up to a fence, but I don't have much contact with her these days. She's actually the mayor of a small town, so it shows that people move on from some of their earlier activism and start to think about things much more seriously.

And we've got today a really distinguished panel to get us off into this future. We have on my left Richard Burt, who, in fact, is heading up a distinguished

commission, people thinking about getting to global zero.

And on my immediate right, Daryl Kimball, whose publication -- Daryl, you have it with you here -- was available outside for those of you who came early, and I hope many people got copies. And Daryl's work, *The Arms Control Association*, is available I think at all the websites, and other issues I'm sure many of you are familiar.

And then Deepti Choubey, who has just arrived on the train from New York, where I think you were getting your credentials for actually taking part in very important sort of meetings on this topic.

What we're going to do is ask our three panelists to give some short opening remarks, about seven to eight minutes, and then we'll leave the rest of the time for discussion with all of you. Obviously, given Richard's role on this distinguished commission, we're going to actually ask him to talk about the challenges that need to be overcome for getting to global zero, which, of course, is a proposition that's one in the future.

I will ask Daryl to talk about the Comprehensive Test Ban Treaty, a number of issues that he's been working on actively.

And we've asked Deepti to talk about proliferation, or rather our efforts to stop proliferation and the challenges thereof, and to talk to some degree about some of the major challenges to the various nonproliferation treaties, and treaty with North Korea and Iran and other issues that Deepti would like to draw our attention to.

So without any further ado, I will turn over to you and --

MR. BURT: Thank you.

MS. HILL: -- look forward to hearing what you have to say.

MR. BURT: Thank you very much. And before I sort of launch off, I just would -- and if it hasn't been done before, but I do feel the need to pay homage to my friend and former colleague in government, Max Kampelman, who has been enormously

important, I think, in stimulating this, this new wave of interest in nuclear reductions and elimination.

And Secretary Stan Rieser, it's great to see you here as well.

Our chairman began by referring in part to her -- was it your aunt --

MS. HILL: My aunt.

MR. BURT: -- who chained herself to the Greenham -- the Air Force base at Greenham Common. And you said that she was an activist, but over time became a serious thinker. Maybe I'm just the opposite. Maybe I was once a serious thinker, but now I'm an activist. But because I remember not your aunt in particular --

MS. HILL: It wasn't particular, huh?

MR. BURT: -- but I do remember the Greenham Common women, and they were a big problem in our efforts many years ago to deploy cruise missiles and Pershing 2s in Europe, a great story that was documented so well by Strobe Talbott.

But when I talk to groups like this, and I point out that I'm not your sort of typical peacenik, I was a strong defender and contributor to thinking about nuclear weapons in the 1970s when I first arrived in London at the International Institute for Strategic Studies, writing about them in competition with Strobe when I was at The New York Times, and then being part of the policy process in the 1980s and into the early 1990s.

But I think the fact that I was a great believer in the merits of deterrence theory and the contribution that nuclear weapons made to deterrence in that era underscores for me not that my view about international relations or deterrents or nuclear weapons have changed so much as the world has fundamentally changed. And I think it's really understanding how the world has changed, no must militarily, but in important other facets, I think you can begin to understand the case for global zero.

And I'm going to talk very briefly, really address three issues, before we talk

about to get to zero. I think we first have to address the key issue of is it desirable to go to zero? There will be -- there are a lot of people out there who says that it isn't. You have to, I think, address also, because it's going to be looming in the ratification debate and was brought up in the last session we had, the linkage between arms control and seeking reductions and elimination of nuclear weapons by existing states, existing nuclear powers, and the issue of proliferation.

MR. BURT: And then lastly, if it is desirable, there is such a linkage, how do we get there and what are the issues you have to address in getting there?

So, first of all, on the desirability point, I'll make the very broad argument to begin with: clearly the world has changed. We are no longer locked in an existential confrontation with a superpower rival, with open ended goals, who want to not only -- would -- not only sought to establish a position of global hegemony, but wanted to sort of basically change the way we live and the values that we live by. That world no longer exists. There is no ideological struggle with the then Soviet Union. There is not an existential threat that we face or our allies face in Europe or in Asia. And we don't worry militarily about a disarming first strike, nor a large-scale conventional attack that could potentially cause us to use nuclear weapons first.

So, my key argument here on desirability is that not only has the relevance of deterrence declined, but the relevance, to the extent we need deterrents, the relevance of nuclear weapons for deterrents has declined. And I think I can clearly demonstrate that and we -- you might want to come back to that in questions and answers, but I want to say that that overarching strategic reality is reinforced by some other changes. One is the problem of technical proliferation. The fact of the matter is -- and I was thinking about this the other day -- that we are now 70 years or so away from the development of the world's first nuclear weapons. That is as great a period as the period between the Wright Brother's first flight

and a man landing on the moon, and the proliferation, the accessibility of the know-how, of the materials, and to a lesser extent -- and to a lesser extent, the actual weapons themselves, has grown substantially.

Nuclear weapons in the 1950s, '60s and '70s were great power weapons. They were weapons that could only be produced and deployed by countries with the technological and economic wherewithal to do so and there were only a few states that were in that category. That is clearly no longer the case.

What we now have when we look at proliferation is essentially an emerging markets problem, or even a pioneer markets problem. With countries like North Korea, Pakistan and Iran are the most likely proliferators and I don't need to say very much potentially about the potential of non-state or sub state actors acquiring nuclear -- the know-how or more likely the weapons through state proliferators.

And then of course in another technological sense, we have new conventional arms technology that can undertake operations which in the past could only be reliably undertaken by nuclear weapons. But from a purely American -- selfish American perspective, we don't have the need that we had in the '50s and '60s to counterbalance our nuclear -- our conventional weakness with nuclear forces.

We now have -- we're in a position where our conventional forces are preeminent so it's hard to argue that we need to rely on the nuclear crutch in the same way we did during the Cold War with our kind of focus on the threat posed by the Red Army.

But lastly here on the issue of desirability and the question of deterrence is, I think it all stems, in terms of thinking about the desirability of Global Zero in terms of how you really perceive international relations. If you think we live in a Hobbesian world, and nearly every country is potentially a threat to every other, then deterrents and nuclear weapons may be the best approach to pursue, and there probably have been periods like

the Cold War when we faced the Soviet threat where deterrents and nuclear weapons was the most reliable and stabilizing military strategy to adopt. But I would argue we are moving into a different kind of period, particularly one where great powers, I think, have by and large given up the kind of traditional goal of global conquest. You don't have a Germany seeking *Lebensraum* in the then Soviet Union. You don't have a Japan seeking a greater Asian co-prosperity sphere. What you have instead are very dynamic economies who recognize that they're going to pursue their national interests, not through conquest and occupation, which I think in the last hundred years has been not a very successful strategy, but through investment and trade in developing growth -- internal economic growth.

So, it's not as though national interests have changed, but the tools of achieving those national interests have changed. And so Russia is relying on a strategy not of using its military force to achieve its interests. It's, as it's done just recently vis-à-vis the Ukraine, it's using its natural gas and energy capabilities and they will probably be much more successful in the process. And the Chinese, through their policy of peaceful rising in Asia, is going to be far more successful, in my view, in achieving its goals than militarily threatening Taiwan or Japan.

So, I think that if you take these issues together, I think increasingly you can make the case that nuclear weapons are not attractive means of pursuing national interests particularly by the great powers, by countries who already have those weapons. And ironically, nuclear weapons are becoming much more suitable for weak states who desire a means of deterring stronger states. I mean, one of the most -- maybe the law of unintended consequences after the Gulf War, I think it was an Indian Defense Minister who said the real lesson of the Gulf War in 1991 is if you're going to get into a fight with the United States, you better have nuclear weapons.

So, ironically, nuclear weapons in a new era are weapons of the weak, not

the strong.

Now, I want to address very quickly this linkage with nonproliferation. John Kyle was asked about the New START Treaty and he said -- and was asked, what about the new threats we face like nonproliferation or terrorism -- nuclear terrorism, and he said, well, this treaty has nothing to do with those issues. I think he is really profoundly wrong for two or three important reasons.

One, any treaty that gives us greater information and transparency about a current status of the Russian nuclear arsenal and improves the dialogue between the United States and Russia is helpful from the standpoint of proliferation simply because Russia is potentially an unconscious proliferator given its nuclear assets, stockpiles, scientists, et cetera.

Two, and I think more important here, if you see New START in isolation, then maybe it's hard to draw that connection, but if you see New START in the way that we at Global Zero do, as part of a potentially 20- to 25-year process of phased reductions that bring in new participants to get down to very low levels and then finally to zero, then New START is the critical first step in the process of zero. And if you believe that getting down to zero creates or changes the dynamic for would-be nuclear states, if you believe that measuring the pros and cons of proliferators, then they see nuclear states disarming and the political obstacles to acquiring nuclear weapons are higher, then -- there is then clearly a linkage.

And then finally I will get to the point of next steps. You can put them in two buckets, one are the near term issues and the end game issues. In terms of near term issues there are two or three. One, the very next step would be, in our view, another round of negotiations with the Russians which would be designed to go down to a level of approximately 1,000 weapons. It would include a broader category of weapons, not only the

strategic -- not only warheads on strategic delivery vehicles, but also tactical nuclear weapons as well as stored weapons. That would be a big jump. It would require vastly more verification than we currently do now, but we think it's an essential step for taking the next big step which is then to multilateralism the arms control process, in other words, bring the other nuclear weapons to the table.

I heard -- I know that the Chinese position, for example, is they will enter the negotiations when the United States and Russia get down to their levels. I think there is politically a plausibility that they would come to the table if the United States and Russia got down to 1,000 or so weapons. I think there's a kind of tradeoff here between, kind of, Russian concerns and Chinese concerns.

If the Russians believe that their further reductions will bring the Chinese to the table, I think the Russians will be more willing to enter that process and if the Chinese believe that the nuclear threat they face from Russia, particularly in terms of tactical nukes, they will be more inclined to do so. And thus in our so-called action plan, what we propose, actually, is the United States and Russia getting down to 1,000, but only implementing that if and when the other existing nuclear powers agree to cap the existing size of their arsenals. If we could achieve that then we could move to a next phase which would be a multilateral phase, which would bring in the Indians. If the Chinese are at the table then the Chinese are going to obviously want the Indians to be there and the same is true for the dynamic between India and Pakistan.

And we've laid out, and I'm not going to spend too much time with the numbers, but we think that there could be two phases of further reductions until you get to what I called earlier, the end game. The end game poses a number of really unique issues. It poses the issue, the most obvious one, of getting down to zero of the verification required for that. You would need, clearly, a system of any time, any place verification. The end

game raises issues of breakout. Needless to say any of the existing nuclear powers, even if they did eliminate their weapons to zero, would have the capacity to, in a crisis or in some form of deception, to try to reconstitute their capabilities very quickly. I might note that already there are would-be or potential nuclear powers that have had that capability for some time. Japan, for example, is probably capable of building a nuclear capability or deploying the nuclear capability in a very short period of time.

I've been told that Sweden has a similar capability. There are probably several states that have that capability but we would need to take the reconstitution issue into account. Enforcement would obviously be critical and my old boss George Schultz, who is a Global Zero supporter, has emphasized this in his presentations. We have not done a good job on enforcement. In other words, what would the signatories to a Global Zero Treaty -- and they would not simply be the nuclear powers; they would need to be a long list of potential nuclear powers -- what would they be prepared to do in the event that there was some clear evidence of cheating? Without an adequate enforcement mechanism, it would be difficult, I think, to get governments to support the goal of zero.

In conclusion, there are some difficult issues in the end game. We -- our group is now working on those issues. We think they're soluble and I think one point to make is that we're not trying to get there in two years or five years. We're talking about a process that would take 20 years or longer and thus I think the process of exchanging data, of creating greater transparency, and generating a process of compliance and exchange on these issues, I think over time would make the end game issues a lot easier than would be the case if we were trying to do this quickly and without the kind of interaction that would build up over a period of time.

So, in conclusion, I think the argument is clear, in my view at any rate, that it is a desirable objective. There is a clear linkage between the process of reducing existing

nuclear powers arsenal to raising the political costs for states to proliferate. And finally, I think it is possible through the kind of technically verifiable, politically, and politically plausible strategy that we've laid out, to get to zero.

MS. HILL: Well, thanks very much. That was a very comprehensive overview of this whole issue and I think leads very nicely where you finished into the question of whether the CTBT, the Comprehensive Test Ban Treaty, can be one of the tools in this arsenal, so to speak, of moving towards zero.

Daryl, what are your views on this?

MR. KIMBALL: Well, thank you. It won't be any surprise that Daryl Kimball of the Arms Control Association thinks that CTBT is important. What I want to talk about is why and why the prospects for the CTBT, I think, are still better than they ever have been since the treaty was signed.

But before I do that, I want to remind us of a couple things. We just started talking at the beginning about activists and deep thinkers and the interplay. I personally think we need all of these people to make progress and if any of you were here just a couple of weeks ago when the Nuclear Security Summit happened, there was one funny reminder of that. On many of our bus stations there were pictures of President Nazarbayev of Kazakhstan and I got a visit from a Kazakh film crew that week asking me what my thoughts were about the role of the president in bringing an end to nuclear testing. You know, he closed down the test site formally in Kazakhstan. And I had to remind the film crew, which worked for the government, that it was the people of Kazakhstan who lived near Semipalatinsk, who came out by the tens of thousands during the Soviet days to tell the government to shut the test site down because of the terrible damage the tests were causing and that's what led the president to see the light and to understand that this was part way a ticket for him to help Kazakhstan break off from the Soviet Union.

So, it takes a confluence of historical opportunities, the right people and the right places, the people pushing their government leaders to make progress, and that's no more -- there's no other nuclear risk reduction initiative other than the Comprehensive Test Ban Treaty where that is true, and this idea -- we're talking about going forward, but this is actually one of the oldest ideas on the nuclear risk reduction menu, but it still is an extremely important idea for this time.

As I think just about everybody in this room knows, the U.S. was the first country to sign the CTBT which bans all nuclear test explosions and sets up an international monitoring system to verify compliance with the treaty and to detect and deter cheating. And as President Obama said in his statement yesterday in response to Indonesia's announcement that they will ratify the CTBT, he, the President, said, "Reinforcing the norm against nuclear testing will help prevent the spread of nuclear weapons and support our efforts to pursue the peace and security of a world without nuclear weapons." The CTBT is an essential next step on the road towards the end goal that Rick Burt was just telling us about, is necessary and achievable.

We also have to remember that with or without the CTBT the United States, it's highly unlikely, and I think that's an understatement, that the United States will ever conduct another nuclear explosive test. There's no technical or military reason to do so, nor is there the political will. At this stage, 17 years after the last U.S. nuclear test explosion, a resumption of U.S. nuclear testing would have very negative effects for our security for the nonproliferation cause and more.

At the same time, it's in our interest to prevent other countries from testing because testing would help, could help countries that already possess nuclear weapons to perfect newer and more sophisticated nuclear weapons and for those countries that could be nuclear armed countries like Iran, without nuclear test explosions, they are going to have

an extremely difficult time if they choose to do so, to develop and proof test the more advanced warheads that are needed to put on those ballistic missiles that they are building.

So, it's in our interest to do everything we can to prevent other countries from conducting nuclear test explosions to increasing the costs of violating the de facto global nuclear testing norm and of course as we see this month, the test ban treaty is essential -- U.S. ratification of the test ban treaty is an essential step towards reinforcing the nuclear nonproliferation treaty. It was, of course, an essential part of the bargain in 1995 to indefinitely extend the NPT. And as we see in speech after speech coming out of the review conference this week, countries continue to call for the prompt and early entry into force of the CTBT which now requires, if Indonesia follows through, just eight countries to ratify, including the United States, to achieve entry into force.

And ratification and entry into force of the treaty, as I mentioned earlier, is going to improve our already powerful capabilities to detect and deter clandestine testing.

There are those who argue that this treaty -- and they argued in 1999 -- this treaty is not verifiable. No treaty is 100 percent verifiable, but one thing that's clear is that without this treaty we are in a much worse position to detect and deter cheating. And it is going to be impossible for the United States to act on credible reports, if they occur in the future, that a country of concern is conducting a nuclear test explosion, in an effective way without all the tools of the CTBT.

So, for all these reasons and others, there's much -- there's nothing to gain and much to lose by delaying action on the CTBT.

Now, the fact that it makes sense doesn't necessarily mean that the U.S. Senate is going to provide its advice and consent. Let me talk a little bit about the political prospects for the CTBT. As I said, I think the prospects for ratification today are better than they ever have been since the treaty was open for signature in September of 1996. If a vote

were held tomorrow, our estimate is that there would be at least 60 votes for the CTBT. Sixty is not 67, but you have to recall that there has not been any serious discussion in the United States Senate since, about October 14th, the day after the last vote, on the Comprehensive Test Ban Treaty. Few senators have taken a look at this since then. This is within the reach of President Obama to secure the necessary votes. The effort by this administration that was promised in April of 2009 at the Prague speech to immediately and aggressively pursue Senate reconsideration and ratification, has not really begun.

I'm disappointed by that, many people are disappointed by that, but in many ways I think it's understandable. It has been an extremely busy year. A New START Treaty was negotiated, a New START Treaty has to be ratified, it's first in the queue in part because the START-1 Treaty expired in December of 2009. The administration has begun laying the groundwork for reconsideration by commissioning key technical studies that have to be done to make sure that the Senate is fully and well informed. There's a National Academy of Sciences study that's being done, something of an update of their 2002 report, and there's a National Intelligence estimate that is nearing completion and these will be rolled out, I think, before year's end and it will put the administration in a good position to bring the CTBT forward sometime in 2011 and after the New START Treaty is approved by the Senate.

And when it does, I think that what the Republican senators who will be needed to support this treaty will find, if they look closely, is what former Secretary of State George Schultz found. And he said last April, "Republican senators might have been right voting against the CTB some years ago, but they would be right voting for it now based upon new facts."

And I just want to kind of finish up in the next couple of minutes by pointing out one of the key sets of new facts on the Comprehensive Test Ban Treaty that's very

important now, it will be very important during the debate on the CTB itself and that is the evidence that has built up over the last decade about the ability of the United States to maintain the stockpile in the absence of nuclear explosive testing and the pursuit of new design warheads.

It is clear that the Stockpile Stewardship Program, which is now 15-plus years old, is capable of maintaining the arsenal in an effective, safe, and reliable fashion using non-nuclear experiments, sophisticated super computer modeling, and life extension programs that replace the non-nuclear and, if necessary, some of the nuclear components of the warheads.

The adjacent independent technical advisory group just last September looked at the life extension program, compared it to the warhead replacement option, and they found that the lifetimes of today's nuclear warheads could be extended for decades with no anticipated loss in confidence. And these findings are reflected in the Nuclear Posture Review that the administration just put forward a few weeks ago.

And while there are going to be concerns, I think, from some protesting senators, like Jon Kyl, that the replacement option has been closed off, the National Nuclear Security Administration and the administration has made clear that while they're going to pursue refurbishment and replacement -- I'm sorry, refurbishment and reuse options for the life extension programs, if necessary, they will examine and if necessary pursue the replacement of warheads -- nuclear warhead components, if necessary.

So, all of the options are on the table, if necessary, but what is clear is that no nuclear testing is required.

And secondly, there continues to be complaints from Senator Jon Kyl once again that there is not a credible plan or a budget for nuclear weapons modernization. This 1251 plan -- Section 1251 plan that we heard about this morning is going to be delivered,

along with a START package, but I think we already know what the contents of that are going to say. Based upon the Fiscal '11 budget from the administration which increases the National Nuclear Security Administration's weapon budget by 10 percent to $7 billion and they make it clear that they will be investing at least a billion more over the next 5 years to maintain the nuclear weapons infrastructure necessary to follow through on these life extension programs.

So, there is a plan in place. There is more than enough of a budget to help the labs do what they're supposed to do to maintain the stockpile. And Robert Gates said it best in the Nuclear Posture Review and Jon Wolfsthal quoted this, he said, "This is a credible modernization plan necessary to sustain the nuclear infrastructure and support the nation's deterrent."

So, the debate about whether we need nuclear testing to maintain the arsenal really should be over. I think it is over, and if senators look at the evidence, I think they're going to come to similar conclusions and it is time now, with these resources, with this plan, for the administration and for the Senate to reconsider and ratify the CTBT.

And then just very finally, I think we have got a lot of people here in this room who have been working in the nonproliferation arms control field for a long time. I think it was mentioned this morning by Assistant Secretary Gottemoeller, but Steve Ledogar, who was involved in many negotiations, passed away this past week. He was a lead negotiator on the CTBT. His testimony in 1999 was very powerful in support of the treaty and we're going to see it as our work, our job, to carry on the important legacy that he left with us with the test ban treaty.

So, thanks for the time and on to Deepti.

MS. HILL: Thanks, Daryl. And Deepti, you're going to push us out further from the domestic challenges that Daryl has looked at, to some of the external challenges to

this and to other regimes.

MS. CHOUBEY: Great. Thank you very much. I was in Geneva two weeks ago and I was asked to brief, in about 20 minutes, a group of midlevel officials from different countries on Iran and North Korea, and I thought, 20 minutes to do Iran and North Korea? That's pretty tough. I've been given eight minutes to do Iran, North Korea, and other challenges and challenges to achieving a world free of nuclear weapons. So, let's see if I can accomplish that in the quick timeline and my hope is to also give a few provocations to stimulate the discussion between us afterwards.

So, the starting point for me in this idea of what are proliferation challenges and challengers to achieving a world free of nuclear weapons is that there are two fundamental conditions required for getting to a world free of nuclear weapons and that is, that acknowledged NPT nuclear weapons states, particularly the United States, will not disarm until other nuclear armed states do so and until they can be assured of no further emerging nuclear weapon states. And I think Ambassador Burt has done a great job talking about that first condition about how you bring other nuclear weapon states into the mix, but the second condition for me illustrates that proliferation concerns are directly linked to prospects for disarmament. And there are two obvious challengers -- North Korea and Iran -- to the nonproliferation regime and as long as concerns about them persist, they present an obstacle, but in different ways, to achieving a world free of nuclear weapons. And rather than state the obvious about how North Korea poses a challenge and how they are very few good ideas, I think, in the current moment about how to move that process forward, let me simply state that although prospects for denuclearizing the Korean Peninsula seem slim now, it's likely that other external developments is what will be required for us to try to change the dynamic of negotiations. This may come in the form of what happens when Kim Jong-il really passes on and what the successor plan is and what is the role of the military

officials who seem to have been gaining more and more control over particularly the nuclear set of issues, but also their food security issues that seem to temper the actions and behavior of the North Koreans.

One of the things also, just to tie back to what Daryl said is, imagine a world where we start seeing more ratifications of the Comprehensive Test Ban Treaty except for North Korea. What does it mean where every state in the world signs up for this except one state that is continuing to test? Is that really the awful scenario that we think it is, that shows that the CTBT is maybe not as effective as it should be since it hasn't entered into force, or do all those other ratifications add up into a fully strengthened global norm, except for one state, and that states will actually take action in different ways or start to be a little bit more creative about what to do about North Korea?

So, in this way I'm one of these people who thinks that, yeah, when really bad things happen, sometimes opportunity comes out of that particularly for galvanizing action from other states. But I think the one thing we can probably -- you know, if I was a betting woman what I would bet on is, if we did nothing on North Korea, what we could always count on is that the North Koreans inevitably overplay their hand and when they do that, I think, there's always opportunities for either further pressure or engagement.

So, North Korea -- and then the one other actual contribution I will say North Korea has created in terms of establishing conditions for a world free of nuclear weapons is the way in which they withdraw from the NPT has left open questions about Article 10, both the process and consequences for withdrawing, although my hope is that the NPT review conference occurring right now addresses this issue. I'm not very -- I don't know that they'll actually get to any real outcomes on it but it at least underscores that it's a problem and it's one of the problems that will need to be solved if we're trying to get to a world free of nuclear weapons.

So, let's put North Korea to the side for a moment and let's talk about Iran. I think Iran in some ways is a more worrying problem to the regime as compared to North Korea because it's more integrated despite its lack of relations with the United States into the international order. North Korea has a very specific pathology of a kleptocratic state whereas the conditions surrounding Iran's presumed nuclear ambitions may be more relatable to other countries and this could be -- you could name it prestige, you could name it security, you know, what have you. And some evidence to support this is the -- what you can call the open-mindedness, at least, of particularly non-aligned movement states in the last several years as Iran has spun its narrative, that it has done nothing wrong, that efforts against it is basically an effort from Western states to unfairly oppress the Iranians and to infringe their Article 4 rights to peaceful uses of nuclear energy.

I think the cracks are starting to show in that narrative, particularly with the revelation of the second secret enrichment facility and this month's review conference will be interesting to watch to see whether states grade Iran's declarations with acceptance or criticism. The one thing that we should keep in mind, despite things you may hear in the media or from commentators, the review conference is not the place to resolve concerns about Iran's noncompliance, but it is a chance to see whether states feel the urgency to counteract the bad example that has been created by Iran and North Korea. But it also won't be the last opportunity to do so. I would hope that we could get a progressive, substantive, meaningful, final declaration. I think it's unlikely, particularly with the opening salvo that President Ahmadinejad presented on Monday at the review conference.

You know, I don't think their presence there is meant to be a constructive one. I think they're setting themselves up to obstruct any kind of meaningful outcome, but what we've also been trying to do, many of us, is think about what are alternatives to success at the review conference. And when the review conference ends, there will still be

opportunities to try to shore up the regime particularly in the areas where we need it to be strengthened if we ever want to move towards a world free of nuclear weapons.

And I'm sure that none of us actually want to see Iran further develop or declare a nuclear weapons capability but we should consider what would happen to the regime if they did. After Ahmadinejad's most recent protestations to the world about Iran's program and his, what I think was a rather transparent and desperate ploy, and other recent acts of nuclear theater, such as the conference that they held in Tehran, you know, imagine six months, a few years from now, what have you, that the Iranians declare capability? Would that development finally galvanize states to take action? Would they realize that the past decade has not been about abstract and ideological and polarizing debates between the west and the developing world, but instead about real threats from within? Would there be a willingness to further innovate the regime to keep peace with an increasingly complex security environment and advancements in technology?

If so, we might actually then see the actions needed to bolster verification or compliance in particularly enforcement measures. And without faith in the regime's ability to detect cheating when it occurs, or to deter it with sufficient threat of punishment, the goal of a world free of nuclear weapons will remain elusive.

So, when the discussion focuses, I think, on these necessary elements of verification and enforcement, it becomes clear to see how disarmament is a joint responsibility amongst nuclear weapon states and non-nuclear weapon states. It's not just a pitched battle between some members of the UN Security Council and some identified proliferators.

For instance, the IAEA has unequivocally stated that they need comprehensive safeguards agreements and the additional protocol to be in place for the watchdog to be able to detect the diverging of materials for weapons purposes, and there

have been several calls for universalizing the additional protocol, but as a first step I think more should be done to ensure that non-nuclear weapons states with active nuclear energy programs, such as Brazil and Argentina, actually adopt the additional protocol. Unfortunately when you bring it up, particularly with the Brazilians, we're kind of in this old conversation about who goes first on disarmament and nonproliferation. The Brazilians say you nuclear weapons states haven't done enough. Why should we take on additional obligations? We have these other ways of assuring that we're not going to develop nuclear weapons. I think that's a really limited view about what the value of the additional protocol is. I actually think the additional protocol isn't necessarily about nonproliferation. I think it's a necessary condition for facilitating disarmament because, again, it's a way of verifying whether there's any cheating taking place.

But I also think that Brazilians should look down the road a little bit in terms of their own neighborhood. There are -- have been recently increasing concerns about what Venezuela might be thinking beyond just exporting whatever uranium they may or may not have to Iran, you know, are they thinking about a nuclear weapons program? Wouldn't you want to set the condition that if you have an active nuclear energy program you also have the additional protocol so you would know that your neighbors are not cheating?

So, I think there needs to be a bit of reframing about how the additional protocol relates to disarmament measures and that it's not one or the other, but certain measures can actually serve both goals.

And I think another opportunity for non-nuclear weapons states to allay proliferation concerns and facilitate disarmament activities is for them to address the proposition that was articulated in the most recent Nuclear Posture Review, that without the United States' extended nuclear deterrence commitments to specific allies, that those allies would develop nuclear weapons on their own. This is a very worrying proposition for me

and it should be for anybody who eventually wants to get to a world free of nuclear weapons, and it's worrying because I think it's both misplaced and it's too facile.

In the case of NATO allies, I think current debates particularly around whether to remove tactical nuclear weapons in Europe, they actually are a proxy, I think, for newer NATO states who are concerned that the Article 5 commitment within NATO doesn't apply to them and particularly if they're in trouble. So, if they're in trouble they don't think the rest of the alliance is going to come to their aid and for me this begs the question of, well, what exactly are the threats facing these states and are obsolete nuclear weapons with no military utility the best way to address them.

And perhaps it's because I'm a woman, but I'd really prefer we actually have an open conversation with our allies, find out what it is that's bothering them, and see whether we have alternative and more effective ways of actually addressing it. And if those real security threats are from regime destabilizing cyber attacks or migration issues or things of that like, then I think it behooves us to have that more rigorous and honest dialogue with our allies and see how we can actually help them with the problems they face.

But for our Asian allies, like Japan and South Korea, it's a little bit of a different picture because part of their threat perception is a nuclear North Korea that is, you know, acts in variable ways and oftentimes belligerently. And I think that extending nuclear deterrents commitments, particularly for this moment and as we don't make progress on denuclearizing the Korean Peninsula, it probably does make more sense, but I think we need to challenge ourselves on this proposition of, well, what happens in the future? If we can find a way to roll back the North Korean program or to denuclearize the Korean Peninsula, how do we further test this idea that Japan and South Korea still need a nuclear deterrence commitment from us in order for them to feel safe? Are there other ways that we can assure them that we are committed to deterring the perceptions of, you know, anything

that they feel threatened by?

But my other issue here, and Japan, I think, is a good example of why this argument made by the NPR is a little too facile is I think it's actually unfair to the Japanese people and the government to say that if we did not provide an extended nuclear deterrents commitment, that they would somehow sprint towards creating a nuclear weapons capability, you know. And this has been said many times before, but as the only country that has actually experienced a nuclear weapons attack, I think there is very deeply engrained values in their society. It's in their laws, it's in a lot of the efforts that they do internationally across different agencies, that they're not going to develop nuclear weapons. So, I think we just should be a little bit more sophisticated in some of our argumentation about that and I think it will have major policy implications.

So if our allies in conjunction with us cannot find a way to eliminate the threats or address them through non-nuclear means and instead give further credence to the concept of extending nuclear deterrents as a nonproliferation strategy, this would be an instance where nonproliferation is actually the obstacle to disarmament. To me this seems a little perverse, but I feel like that's what's happening with the Nuclear Posture Review.

And the last thing I'll simply say, because it probably needs to be said, is in the effort to create a world free of nuclear weapons, it's not just about the relations and threats among states. As we know from the Nuclear Security Summit that recently occurred, we also have to think about the threat from non-state actors and the threat from fissile materials and the weapons themselves. I think some important progress was made at the Nuclear Security Summit. I think there was what has been lacking in the past few years is a common understanding of what the threat is. I think until this happened, you know, there was a lot of developing countries that were resistant to taking certain states because their assessment was that if a nuclear bomb is going to go off, it's going to go off in Washington

or London. It's not going to go off in Kigali, so why should they care?

And I think one thing that has really -- you know, one thing the President has achieved is trying to get people on the same page that there are different aspects to how non-state actors would try to get to fissile material and use it. And that actually impacts a lot of these states, and if they want to forestall the consequences of being affiliated with any of those steps, it's worth them getting involved.

I think locking down materials, securing arsenals, stopping the further production of weapons and the materials needed for them, those are all key steps and if particularly in stopping the production of fissile material, perhaps we can start reframing the Fissile Material Cutoff Treaty as actually an antiterrorism measure and maybe we would see the Indians and other states get on board with serious negotiations.

So, this is my, you know, very quick attempt at giving a picture of some of the obstacles and there -- I think they're challenging, but I think it's the broader picture of what's really needed for us to get to a world free of nuclear weapons.

MS. HILL: Thanks very much, Deepti. I think some of the issues that you raised here, there are some questions that Richard Burt began with. You said in many respects the deterrence picture has changed very much because nuclear weapons are now looking like the last resort of weak states, which the North Korea picture firmly seems to fit into. But from listening to Deepti, the Iran issue is a little bit more complex than that. And some of the issues that you mentioned about NATO allies or other allies looking, in fact, at the potential or at least the debate going on in some of these countries about should they acquire nuclear weapons, most certainly relate to different perceptions of threat, but it's not necessarily related to state's perceptions of weakness. In the tactical nuclear weapons in Europe discussion, for example, there's been speculation about whether Turkey or other similar states might consider a nuclear weapon program. But Turkish (inaudible) debates

about this, which of course have been, you know, somewhat general, so certainly aren't proceeding from a perception of Turkish weakness. It's more the sense that Turkey is a regional power. A certain prestige element is going to come into that discussion, which is certainly one of the cases in Iran.

And on the other hand, in terms of disarmament and countries that are actually discussing getting rid of a nuclear arsenal, which aren't really all that many, we already have the example that Daryl brought up about Kazakhstan, which happened at a certain set of very important circumstances, the collapse of the Soviet Union. And as you said, there was a great ground swelling against actually the effects of the Soviet nuclear weapons program on Kazakhstan itself which felt more of a victim, perhaps, of the program rather than one of the inheritors of it. But of course, Ukraine, which our colleague Steve Pifer and many others here worked on very closely with in terms of its disarmament, had a very complex set of things to think about, was more of a partner, perhaps, in the development of the nuclear program with Russia within the Soviet context.

But the other instance of a discussion that may of course be affected by what happens tomorrow and the general actions is the UK. While a lot of the discussion about getting rid of the nuclear weapons has been actually from the perspective of, we can't really afford them anymore, and do we really need them in the European context which is not necessarily perhaps a great symbol for others who are thinking about the nuclear weapons if Britain gets rid of them because they just simply can't afford to maintain the arsenal. It doesn't necessarily, perhaps from one perspective, get us further forward because it's maybe not giving up the nuclear weapons with the rationale they may couch it like this, if they do, and that's not kind of clear that if there's a change in government that we'll have the same kind of debate.

But that raises a lot of the questions here about the calculations that go into

this on the part of other states and I just wondered if I could encourage the three of you to push that out a little and then turn over to our colleagues in the audience for further comments and questions for the next half-hour.

MR. BURT: I'm happy to make just a couple of brief remarks. First of all, you know, I think that -- this isn't original, I think it's been said many times -- but there are really two different rationales, I think, that lead countries to think seriously about acquiring nuclear weapons. One is a pure security rationale, which is a function of weakness or perceived weakness. And looking at recent proliferators and would-be proliferators, I think the countries that fit into that pocket are North Korea and Pakistan, for example. And then there is the kind of status rationale, announcing to the world that you have arrived, that you can master this technology, you're now a more important country. It often resonates with public opinion. And there's a mix, of course. I mean, in Pakistan there was a security concern, but also there was great dancing in the streets when the Pakistanis announced they had a nuclear weapon.

How you address those situations, I think, are sometimes different. I mean, in terms of the issue of status, I mean, what I was suggesting before is that when a country, I think, makes the decision or is in the process of making the decision, they have to weigh the pros and cons. And I would argue that largely, in recent years, if there is a security concern as well as a status benefit, the argument for pros has probably been stronger than the con because there really isn't a political -- much of a political cost or as big a political cost as there should be.

And that's the reason I was suggesting that a dedicated effort by existing nuclear powers to engage in a process of reductions, that were perceived as meeting their Article 6, as part of the process of moving to meet their Article 6 requirements, but more importantly kind of politically arguing that these weapons are no longer kind of acceptable

instruments of political power. I think you can change that calculation.

You're not going to completely -- there's no silver bullet here. You're not going to do this very quickly and it's not going to happen like a light switch. But if Iran, for example, believed that some of the arguments it was making about the built-in hypocrisy of the NPT were being chipped away by an effort to -- of the existing states to reduce, a serious effort, if the rational both for the Iranian public and for the international community became weaker, and nuclear weapons, over time, were seen as, again, being outside a kind of acceptable norm, then I think the arguments, the cons in that decision, begin to outweigh the pros. And I think that's what we want to do is change the dynamics here.

And I for one, for instance, in the case of India think that the Indians -- and I've spoken to many Indians over the last 18 months about this issue, including people who were not any great supporters of the Indian bomb, but helped actually build it and deploy it, who regret that decision, and they will publicly say that in the Indian debate, and there is a big constituency for Global Zero in India now because they recognize that it led -- it gave Pakistan the pretext to go nuclear. It canceled out their conventional preeminence, if you will, and so I think they're revisiting that decision.

And one last point on Iran. It's because I think you can change the dynamics of these decisions governments can make, if I were an Israeli, if I were Benjamin Netanyahu, I would adopt a nuclear free zone proposal, and I would say that with the necessary verification, including the additional protocol, that Israel was prepared to enter into a nuclear free zone without a political settlement with the Palestinians.

I would -- and I would base that on the argumentation that there was an argument for Israeli nuclear weapons earlier on when Israel was outgunned by conventional armies from Egypt, Jordan, and Syria, but that isn't the strategic map of the Middle East any longer. The Israelis are clearly conventionally superior to any sort of Arab threat, and more

importantly, think about it both tactically and strategically, what does it do to the Iranians? It puts -- tactically it puts Ahmadinejad on the back foot. I mean, he loses his most important talking point about Israeli nuclear deterrent.

But strategically, again going back to my cost and benefit argument, it makes it, I think, politically that much harder for the Iranians to make the case for going nuclear when it can be pointed out that if they were to go along with an Israeli nuclear free zone proposal, that there was a pathway to eliminating the Israeli arsenal.

MS. HILL: Daryl?

MR. KIMBALL: Well, a couple quick points. We have a very patient audience, I think they may be losing their patience. I think this discussion, I think it brings home a very simple point which we may be missing for all of the different issues that we're raising and angles on it which is that, I mean, as you said at the beginning, Rick, the situation has changed since the beginning of the nuclear age. Nuclear weapons today in the 21st century are a greater liability than an asset, period. I mean, what are the threats facing all of these countries? It's not a massive attack by another country.

There are only a few countries that are tempted to pursue nuclear weapons -- North Korea, Iran -- but for these other countries that we're talking about, Turkey, they're part of NATO. I think it is a gross exaggeration for people to suggest that Turkey might pursue nuclear weapons even if their neighbors do, or if 300 -- I'm sorry, 200 U.S. tactical nuclear weapons are removed from Europe. I think we have to be realistic about this and it's all based upon the simple fact that you draw out of this cost/benefit analysis which is that nuclear weapons today are a greater liability than asset.

And one of the reasons why this cost/benefit analysis looks this way today versus five years ago, ten years ago, is because of what Barack Obama has been saying, what some other world leaders have been saying, what Global Zero has been doing and

saying, and we see this in the Nuclear Posture Review. While the Nuclear Posture Review says that the United States reserves to use nuclear weapons for certain non-nuclear threats, it says clearly that the fundamental purpose of nuclear weapons is to deter other -- the use of nuclear weapons by others and there's only a narrow set of circumstances that require the United States to consider or to reserve the right to use nuclear weapons.

So, I mean, we have to recognize that there is an enormous shift that has occurred over the last 20 years and for many of the discussions inside the beltway here, in the think tanks, this shift is sometimes imperceptible because we keep talking about all of the hurtles on the road to disarmament and to a nuclear weapons free world. Yes, there are hurtles, but I think this is the fundamental shift that we're seeing that opens up these possibilities in ways that only somebody like Ronald Reagan could imagine in 1986.

MS. HILL: Deepti, any thoughts?

MS. CHOUBEY: Well, as somebody whose patience has been recently tested by the UN bureaucracy, I will save my time for the floor and let's go to a question.

MR. BURT: She was in line for almost four hours --

MS. CHOUBEY: Five and a half hours to move 200 feet, so.

MS. HILL: Did you actually get your credentials?

MS. CHOUBEY: I did.

MS. HILL: Oh, good. Okay. Well, at least there was success at the end of the long tunnel.

So, please if people could identify themselves, I'll just take a couple of questions and then --

MR. THIELMANN: Greg Thielmann, Arms Control Association. I have a question for Deepti about one aspect of the new NPR report and its affect on the NPT Rev Con, especially about Iran.

We're obviously engaged in a battle of narratives at the NPT Rev Con. The negative security assurances aspects of the NPR seem to me to allow Iran to strengthen its narrative by saying that the U.S. is maintaining -- it's keeping its military option on the table, that is it's continuing to threaten us militarily, and by not extending negative security assurances to us, the United States has not complied with the NPT. It is threatening nuclear attack against us even in the event of a conventional scenario.

And, so, I guess my question is, is the U.S. being successful in what its intent obviously was, to strengthen the NPT and to strengthen compliance with the NPT with regard to its impact on this narrative?

MS. CHOUBEY: Great. I have exactly the same concern you had when I read the NPR and saw that. I mean, we've basically given the Iranians another talking point and probably one of the most compelling ones, which is we are being -- in that document the Iranians could say, we are being threatened with nuclear attack by a nuclear weapons state. And I think that's what probably emboldened Ahmadinejad to kind of make the speech that he gave on Monday and to try to, you know, change the narrative on that, you know.

And when I think about, well, how does that come about? And I think this is the problem of domestic politics on issues like Iran getting wrapped into the process of the Nuclear Posture Review.

One of the constituencies that the writers of the NPR had in mind was Congress. And I think we've all seen the many, I think, wrong-footed attempts by Congress to try to deal with Iran. And I don't think that this is the appropriate place for them, but there's been that sensitivity in the development of our Nuclear Posture Review policy and I feel like that negative security assurance language was a nod to those congressional interests. You know, how do we show that we're being really tough on Iran. And it was kind of this, in my mind, somewhat simplistic and overly stated idea that, well, look, we're still

reserving the right to nuke these guys.

Again, give me the scenario where we would actually use nuclear weapons to deal with what the problem is there. I think the last war with Iraq shows us the use of force doesn't work in dealing with proliferation. I'm wondering when we're going to learn that lesson.

So that's one part about how I diagnosed where that language came from and it just shows the messiness of when domestic politics gets involved in the formulation of these kinds of policies. In terms of how it'll play out at the review conference, I've been told from people who are on the floor that after the Ahmadinejad -- you may have seen this, and actually The Washington Post didn't fully report this, but they've reported part of it -- Ahmadinejad got up to give his speech, France was intent on staging a walkout. So France walks out. That forces the United States to walk out. And although they partially walked out because a lot of the delegation members were sitting in their reserved -- in seats in the back. This starts a chain reaction where other states are looking around with other people they're affiliated with, with confusion, and saying, well, I guess we need to walk out too. There are some states where I think like Austria looks at Germany and is, like, what's going on? And some folks are, like, did we miss something? I guess we better walk out.

And one of the problems with this is that the United Nations should be the one place where we can all just sit and listen. And you can open up your newspaper. You can laugh at ridiculous lines. I think there were other ways of trying to address what Ahmadinejad was doing with, again, what I think is an extremely transparent and desperate ploy, than having done this whole walkout. It just fed into that narrative about confrontation between Iran and Clinton. I'm like what kind of confrontation is it when one person speaks in the morning and six hours later somebody else speaks. You know. And, you know, and they're totally different speeches.

So I think what's going to happen on negative security assurances, we'll see some of that debate come out in the subsidiary bodies' meetings. They actually just agreed today to the procedures for that. We'll see some of that come out. I'm sure -- again, I don't believe there was anything we could have done that would have gotten the Iranians to be constructive, particularly since September, when I think they have felt pressure on them. I just don't think there was anything that we could have done to get them to kind of at least lay low and play nice. So I think they've decided on another track. And in some cases what does it matter then what the NPR said? They're going to still do what they're going to do.

MS. HILL: Thanks, Deepti. Let's take another couple of questions right from here, Sir, and then this side of the aisle.

MR. CHATTERDOO: Samar Chatterdoo from SAFE Foundation.

Two comments and two questions. One for Mr. Burt. Congratulations for having moved from the hawkish approach of your '70s and '80s when you were, you know, when you propagated the nuclear weapons and which attracted -- and you're right that India -- a lot of people in India feel that nuclear weapons are not really needed. But I don't think India developed their nuclear weapons for Pakistan. That may be the American interpretation. But it was developed as a counter to China. At least that's my understanding. Maybe someone else's is different. Because India did not need a nuclear weapon to defeat Pakistan, if it ever decided to.

And another point I want to make on Deepti's presentation, that because of two bad apples, North Korea and Iran, the big powers like United States and Russia and China and India is it would not be willing to get into nuclear elimination talks, I think is not really sensible because they are far, far behind. So it's like saying there are two fellows cheating in taxes, so I'm not going to pay because I'm paying millions of dollars. That's ridiculous, in my opinion.

So therefore that should not be our concern because a few bombs from United States can wipe Iran off the surface of the map, and so would North Korea. And so that's not really the concern.

The question is why did the United States still continue to say -- and I think you addressed it a little bit based on the earlier question -- is first, we've got the military option. And now on top of it we've got the nuclear option too against Iran and North Korea, which appears to me to be a little ridiculous. I mean, without saying so, they would assume that that is there. And so why keep repeating it? Is it just for the rightwing, to appease the rightwing? What would you think?

MS. HILL: Can I ask the gentleman across the aisle, just because of time issues, as well if you'd like to ask your question.

And then there was another question towards the back, this here.

But this gentleman here, yes, you wanted to ask a question, yes? And then --

SPEAKER: Yeah, this for Richard Burt. You said that verification is required to get to zero nuclear weapons. I just wonder how rigorous that verification needs to be. Because if a state develops one or two nuclear weapons, that seems to me to be not as serous a threat as if they were developing a large arsenal, and a large arsenal would be pretty easy to detect. So I wonder if we really need to be that rigorous on verification.

And one slightly related question is I wonder if you could talk about how the reported nuclear power renaissance might affect the proliferation problem as we approach the Global Zero.

MS. HILL: And then, sir? Right up here.

MR. WYNER: I'm Larry Wyner. I'm so glad that we had this recent reference to the negative assurance business. I wish this had happened during the earlier

session because I thought the answers given were really full of sophistry.

When we negotiated the NPT, we and the Soviets were absolutely agreed that the nonaligned, who were very insistent that we not create two different worlds with different rights, had a right to negative security assurances. And we spent months trying to work out language. And because of the structure of our forces in Europe we couldn't do it.

And it seems to me that the formula that was constructed by the administration for reasons that I think you're right in saying were political is really worse than the traditional U.S. position on negative security assurances. And I would hope that someday we can get off to the business and get back to a deterrent use only in our formulation. And it seems to me incredible we have a discussion of the nonproliferation effort generally and avoid, as we did this morning, this really central question.

I have one question about Zero. It's always you get down to the question of is it a practical thing. And then you get to the question of the one-eyed man is king in a nuclearized world. And, you know, the U.S. Government many, many, many years ago actually drafted, in interagency battles, outlines of three stages to get to zero. They were general outlines; half of them were for political-public relations purposes. But they were -- we had lots of fights in the government on this. And we ended up at the end in qualifying it. And it was that we would remove all nuclear weapons from national arsenals, which was the basis for the thinking then that you would meet this problem by having some sort of international stock, a minimum stock, to deal with the clandestine development of a weapon by someone.

And I just wondered if you've given any thought to that.

MS. HILL: (inaudible) that's an interesting point to raise.

Yes, please, Rick, and then we'll --

MR. BURT: Very quickly, on the point about cheating and somebody

keeping a couple of weapons under their mattress.

I mean, I'm largely sort of sympathetic with that point of view. But I think we have to be, again, realistic, politically realistic, that if you have a system where you really don't have very high confidence that you -- not necessarily that you can't find every last weapon, but if you kind of publicly acknowledge that, gee, maybe our system is porous enough so that people could hide some numbers of nuclear weapons, I think politically you're not going to get the support necessary for this.

So you do need, I think, a kind of any time, any place, short notification-verification capability coupled with a credible enforcement system. And this is mainly, you know, this is mainly going to be directed at existing nuclear states. Would be nuclear states, I mean, the whole process of developing and deploying nuclear weapons is verifiable, clearly verifiable. I don't think there has ever been a situation where a county has been able to develop a nuclear weapon without plenty of early warning for that.

On the question about the nuclear renaissance, that's a great question. And I just, because of time, but there does have to be linked to this process of phased reductions, another bilateral U.S.-Russia reduction, then a couple of phases of multilateral reductions, you've got to create a -- you've got to come to grips with the issues of the spread of the fuel cycle for -- or parts of the fuel cycle for power. And that means you've got to make progress on internationalizing those elements of the fuel cycle, like uranium enrichment of the sort of proposals that we've made to the Iranians, or plutonium reprocessing, so that countries aren't able -- and the adoption of the additional protocols so that countries are not able to step up to the line of going nuclear in a military sense through the guise of a nuclear power program.

On the question of negative security assurances, I mean, again, I think that the answer that was given about the need to draft the Nuclear Posture Review in a way that

was going to be politically acceptable to members of Congress and other important vested interests like the labs and others is the reason that I think the administration didn't go further. I mean, there's no reason given our military posture, given our conventional capabilities, that we couldn't adopt, flatly adopt, a no first use nuclear policy not just against non-nuclear countries, but against existing nuclear countries. So I think that'll happen. It'll evolve over time. The first small steps have been taken.

And finally on this issue of, though, of getting to Zero, and I was saying at the beginning of my remarks about, you know, a lot of whether you depend on a strategy of deterrence and the degree you depend -- you implement that strategy through nuclear weapons depends on your sort of perception of international threat and the kind of international system you're in. I think we are kind of evolving in a general sense, in a global sense, towards a more Lockian world, a world where geoeconomics are going to be the predominant way of expressing national power as opposed to the threat of the use of military force.

The problem though we face, and this goes back a different way of stating what was said earlier about Iran, is unfortunately the Middle East, the greater Middle East, is still a Hobbesian world. And that makes it much more dangerous. And the possibility of a nuclear arms race in the greater Middle East I think is rather high. And I think there is a danger, and here I may disagree with my friend Daryl, I think, you know, for a variety of political-military reasons Turkey might want to exercise the nuclear option and not rely on the American extended deterrent. Because I think Turkey is trying to find a more independent position for itself in the region, and one that isn't as closely tied to the West, and one that isn't so closely allied with the United States.

So the real threat here of Iran, in my judgment, is not the notion of a potential Israeli-Iranian nuclear exchange, crisis, confrontation, what have you, it's that the

Iranian nuclear program could set off a nuclear -- a cascade of nuclear programs in other parts of the region. And it just unfortunately is the most volatile region in the world, and a region where they would be most likely to be used in anger.

MS. HILL: Daryl?

MR. KIMBALL: There's a lot to respond to here. I think let me just focus in on a couple points.

I want to come back to what you were saying, Rick, about the immediate next steps necessary to get us on the road to zero. There are a lot of questions asked about, you know, what is required for a verification system at the very end of the roads. He's got some very good ideas, but I think we need to begin figuring them out. But we've got to do some things in the next 5 to 10 years to get us on that path.

So I just want to bring us back to what he was saying before. I agree with him that we need to have another round of U.S.-Russian reductions. Whether that happens in a treaty or not I think is yet to be decided. This last negotiation was very difficult. There may be a better way of doing it through parallel reciprocal actions or perhaps unilateral actions that get us to the point where the United States and Russia have no more than 1,000 total nuclear weapons of all types. I think that is doable within the next five years. If that happens, then we can, as the Nuclear Posture Review suggests, engage China and others in a strategic dialogue on transparency and where we're going next and what these weapons are for.

In addition, there is a teachable moment this year which is important to getting us on the path to zero, which is the NATO Strategic Concept Decision. We don't have enough time to go into it here, but, you know, NATO can use this teachable moment to say that, you know, we don't need to have these relics of the Cold War. And, you know, the decision needs to be made to move ahead with the -- withdraw all these weapons back to

the United States. If they don't, I think it sends a horrible message that, you know, these countries need these weapons as a symbol of their political relationship. I mean, what worse kind of message could these countries send.

So I think these are three critical things that need to be done in addition to the Comprehensive Test Ban Treaty. And then as we look forward beyond that, the U.S. and Russia and China and the other nuclear-armed countries need to move -- not just move towards but adopt this sole purpose of nuclear weapons is to deter a nuclear weapons approach.

This is a real shortcoming in the Nuclear Posture Review. And I would respectfully disagree with each of you about the political reasons behind this. President Obama, I'm told, read this NPR twice. He owns it. Okay. He made the decision. There may have been factors going into this decision, but I think it is fundamentally inconsistent with a world without nuclear weapons to have a position on declaratory policy that is anything other than the sole purpose of nuclear weapons is to deter the use of nuclear weapons. Well, I think that's a shortcoming. We've got to get beyond that problem if we're going to get on to the promise land that's somewhere out there.

MS. HILL: Well, thanks, Daryl. Is a good point there. And Deepti?

MS. CHOUBEY: I'm happy to throw it back to the audience.

MS. HILL: No, I think --

MS. CHOUBEY: Or is that a --

SPEAKER: We're done.

MS. HILL: Don't do that because a lot of people are already leaving. So if I were you I would give the people who've been brave enough to stick this out actually beyond zero because it's beyond 3:00 some parting thoughts. Because I think we've got actually another agenda for more discussions, which Steve is taking notes of. We have an

extended deterrence, I think, discussion coming up soon in our arms control program.

But, Deepti, some final things that you would like to leave people with.

MS. CHOUBEY: May I just say, you know, in terms of the conditions of getting to Zero, I urge everybody to take a look at a product created at Carnegie called Abolishing Nuclear Weapons, where George Perkovich and James Acton along with a set of international commentators have really looked at what the conditions should be. And on the verification issue --

SPEAKER: Good piece of work.

MS. CHOUBEY: -- you know, one is where will we finally, in a world free of nuclear weapons, where do we see countries that we're concerned about having the social and political rights in place so that whistleblowers would actually be protected. You know, and do we see some of the countries that we're concerned about, be it Egypt, be it Iran, be it any of these states, really enacting that anytime soon. And I think that shows a longer time horizon. I don't think that that means we don't do it. I actually think that in that way a world free of nuclear weapons is something that can create better societies for many countries. That it's not, this nuclear stuff isn't just hermetically sealed, it actually connects to a whole set of other issues.

So I urge you all to take a look at that. It's all online. And I think it provides a lot of detail.

MS. HILL: Well, thank you very much to all three of you. As our colleague here said, we raised a lot of questions and issues in this session that tied back to the previous two sessions. It certainly gives us a lot more food for thought for looking forward to where we go from here. We hope that you will join us again at future meetings. And of course wish you every success in all the very important work that all three of you are doing in your different contexts.

And also thank you very to everyone else in the audience here for sticking it out for so long.

SPEAKER: Brave souls.

MS. HILL: And we'll look forward to seeing you at other sessions. Thank you very much, everyone.

SPEAKER: Thank you.

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CERTIFICATE OF NOTARY PUBLIC

I, Carleton J. Anderson, III do hereby certify that the forgoing electronic file when originally transmitted was reduced to text at my direction; that said transcript is a true record of the proceedings therein referenced; that I am neither counsel for, related to, nor employed by any of the parties to the action in which these proceedings were taken; and, furthermore, that I am neither a relative or employee of any attorney or counsel employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.

/s/Carleton J. Anderson, III

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